

## Circular dichroism, anisotropy and absorption spectroscopy of Chlorophyll *b* in methanol and mixed methanol-water solutions

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### Electronic Supplementary Information

#### S0: Principal Component Analysis: A short overview

A Principal Component Analysis (PCA) of a set of spectra, e.g. the CD vs time or vs temperature, results in a set of component curves,  $\text{Phi}X$ , representing different spectral shapes contained in the development of the spectra. The corresponding coefficients,  $C_{\text{Phi}X}$ , are the content of the component  $\text{Phi}X$  for any of the analysed (n'th) spectrum, so that

$$CD_n(\lambda) = C_{\text{Phi}1}(n) \cdot \text{Phi}1(\lambda) + C_{\text{Phi}2}(n) \cdot \text{Phi}2(\lambda) + C_{\text{Phi}3}(n) \cdot \text{Phi}3(\lambda) + \dots$$

The principal components are orthogonal to each other such that the vector product

$$\text{Phi}X(\lambda) \cdot \text{Phi}Y(\lambda) = \begin{cases} 1 & \text{for } X = Y \\ 0 & \text{for } X \neq Y \end{cases}$$

The coefficient for of  $\text{Phi}X$  for the n'th spectrum, can therefore be calculated as

$$\begin{aligned} \text{Phi}X(\lambda) \cdot CD_n(\lambda) &= \text{Phi}X(\lambda) \cdot (C_{\text{Phi}1}(n) \cdot \text{Phi}1(\lambda) + C_{\text{Phi}2}(n) \cdot \text{Phi}2(\lambda) + C_{\text{Phi}3}(n) \cdot \text{Phi}3(\lambda) + \dots) \\ &= C_{\text{Phi}1}(n) \cdot \text{Phi}X(\lambda) \cdot \text{Phi}1(\lambda) + \dots + C_{\text{Phi}X}(n) \cdot \text{Phi}X(\lambda) \cdot \text{Phi}X(\lambda) + \dots \\ &= C_{\text{Phi}1}(n) \cdot 0 + \dots + C_{\text{Phi}X}(n) \cdot 1 + \dots \\ &= C_{\text{Phi}X}(n) \end{aligned}$$

In principle, the analysis provides as many component curves as there are spectra being analysed. In practice, all analysed spectra can be reconstructed with only a few component curves. We show three component curves in the following sections of the Supplementary Information (SI). Temperature induced changes analysed with PCA (S2) are shown to need only one or two components to represent all the spectra, while analysis of temporal development (S1 and S4) needs a third component to represent the initial low magnitude spectrum. However, over time only the first two component curves are needed to reconstruct the spectra. The number of necessary component curves for reconstruction of the full set of spectra, corresponds to the number of different spectral shapes in the spectra, and thus to the number of structures giving rise to the overall spectral shape. The remaining components mostly represent inherent noise in the original spectra, hence reducing possible noise-induced artefacts in the first used component curves.

### S1: Principal Component Analysis of the temporal development of Figure 3

The development over time of a sample of Type A, where Chlorophyll *b* (Chl*b*) was dissolved in pure methanol and diluted 1:1 in water after 20 min, was further analysed using principal component analysis (PCA) of the CD spectra in Figure 3. The three first component curves, often called basis spectra, are shown in Figure S1 as Phi1, Phi2 and Phi3. While Phi3 reflects the starting spectrum of Chl*b* in methanol, the coefficients shows that over time only the first two components give rise to significant changes in their coefficients. This means that there are two type of structures developing over time. It is interesting to note that both the coefficient for Phi1 and Phi2 has a lag phase where they are initially close to zero, and that Phi1's contribution to the spectrum starts at the third scan (47 min) where the Phi2 contribution does not start until the fifth scan (85 min). The first basis spectrum is clearly the strongest contribution to the, after about 3 hours, fully developed Type A form.

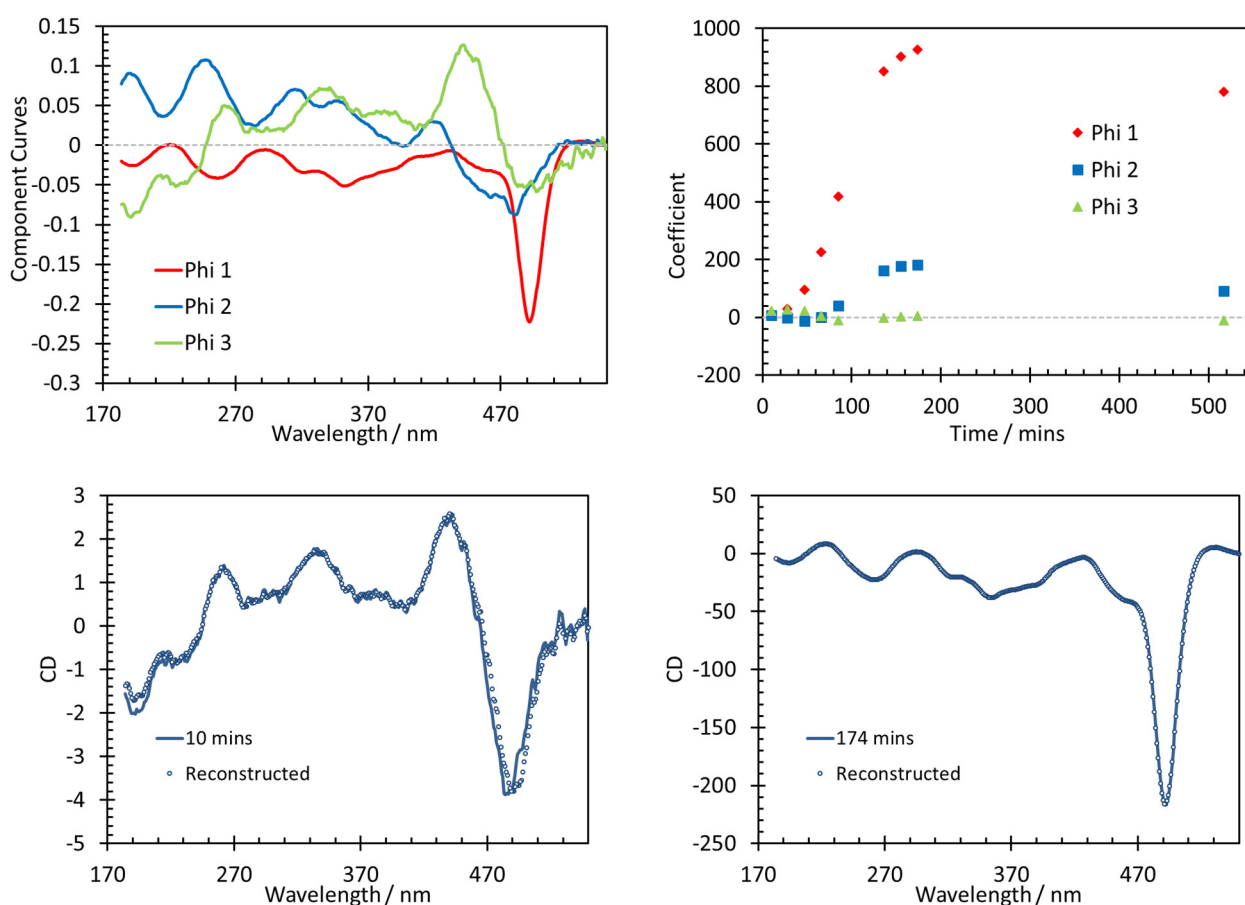


Figure S1: A principal component analysis of the time evolution of a Type A Chl*b* sample following (1:1) dilution in water. The principal components spectra, or basis curves, are shown in the top left panel, and the corresponding coefficients development over time are shown in the top right panel. The bottom panels are examples of the reconstruction of two of the spectra (10 and 174 min) using only the coefficient and basis curves for the components. The 10 min spectrum is mostly reconstructed from Phi3, representing the initial low magnitude spectrum, while the 174 min spectrum may be reconstructed from Phi1 and Phi2 alone.

## S2: Principal component analysis of temperature induced changes to Type A and B structures

The development of the CD spectrum of a Type A structure with temperature is shown in figure 4 of the main paper. By plotting the CD signal at various wavelengths (panel Fig 4d) and observing the anisotropy spectra, it was clear that the spectrum was merely scaling down with elevation of the temperature, until about 66°C after which the CD signal change was more rapid, dropping essentially to zero near 84°C. The results of a PCA on the CD spectra are shown in Figure S2-1. Only the first component curve has a coefficient while the others are essentially zero. The lack of development of any other components than Phi1 with temperature shows that the structure of the sample remains unchanged. This corroborates the conclusion in the main paper from the anisotropy spectra: this is an effect of temperature induced unordered structure that influences the coupling between the chromophores on the individual Chlb units, so that both the CD and absorption signal decreases equally with increased temperature

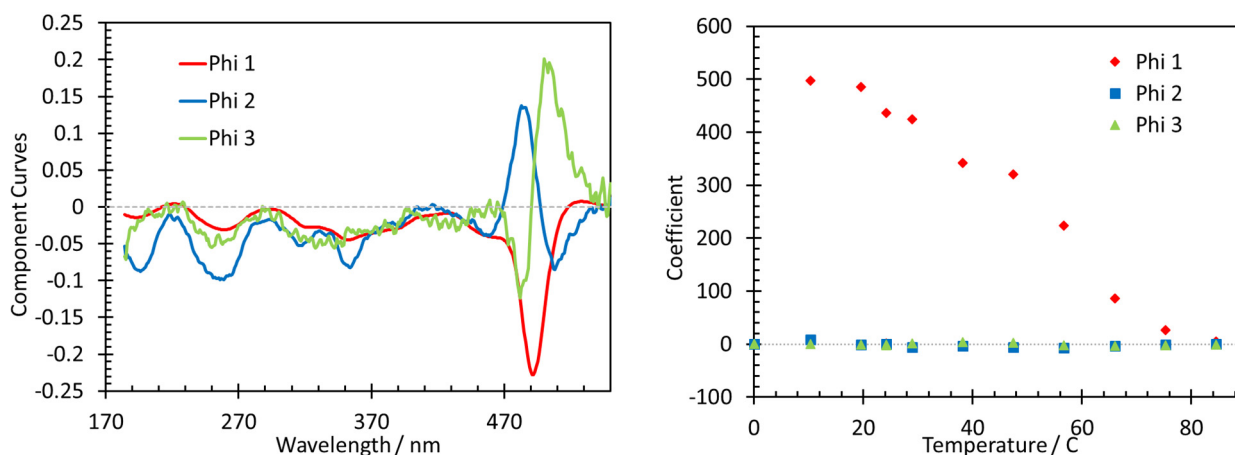


Figure S2-1: PCA of the temperature dependence of the Type A structure from Figure 5.

Such a simple development of the Type A structure is very different from the development of the Type B structure with temperature shown in Figure S2-2. Initially the CD signal of the main peak at 495 nm slightly drops in magnitude, with the anisotropy remaining constant, just as for the Type A structure. But this similarity is only observed until 38°C, where the magnitude increases until the anisotropy is nearly doubled at 52°C. Further increasing the temperature results in a signal drop, essentially reaching zero at 85°C.

PCA sheds further light on the development of the Type B structure with temperature. Shown in Fig S2-3 are the component curves and their corresponding coefficients. The coefficients of the third component curve, Phi3, is essentially zero, but the two other components show clear changes with temperature. The coefficients to Phi1 initially reflects the drop in signal until 38°C, after which it increases to reach a maximum at 52°C, where the value of the coefficient is about 20% higher than the initial coefficient near 6°C. Relatively speaking, the change in coefficient for the second spectral component Phi2 is much larger, as it starts from a value very close to zero. The curve is smooth and reaches a maximum near 57°C. Upon increasing the temperature further, both component coefficients trend to zero. This behaviour of the Type B component curves with temperature shows that as the temperature is increased a new type of structure evolves as represented by the second component (Phi2) while the initial structure, represented by the first component (Phi1) is maintained. At high temperature, both these structures are destroyed or possibly precipitate out of the beam. This is a markedly different structural change compared to the single structure observed in Type A vs temperature.

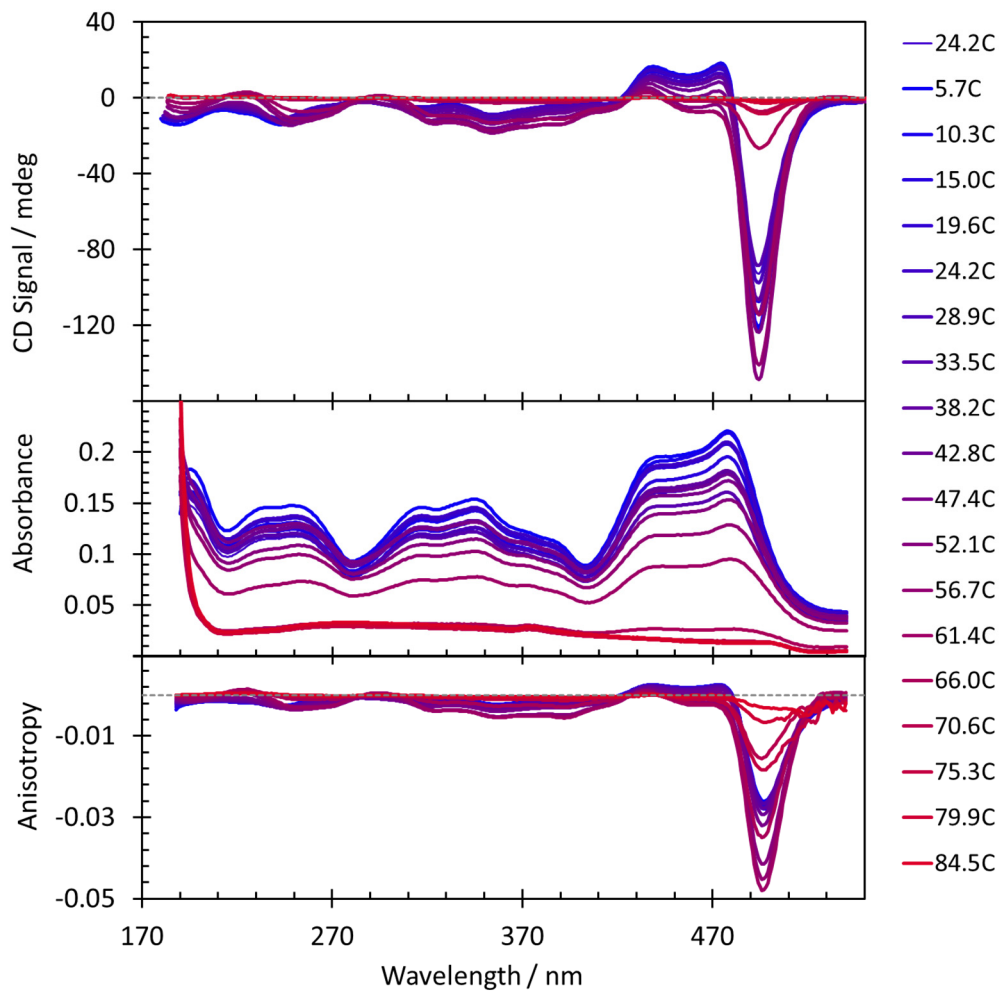


Figure S2-2: CD (top panel), absorption (middle panel) and anisotropy (bottom panel) spectral development of the Type B Chlb structure with temperature.

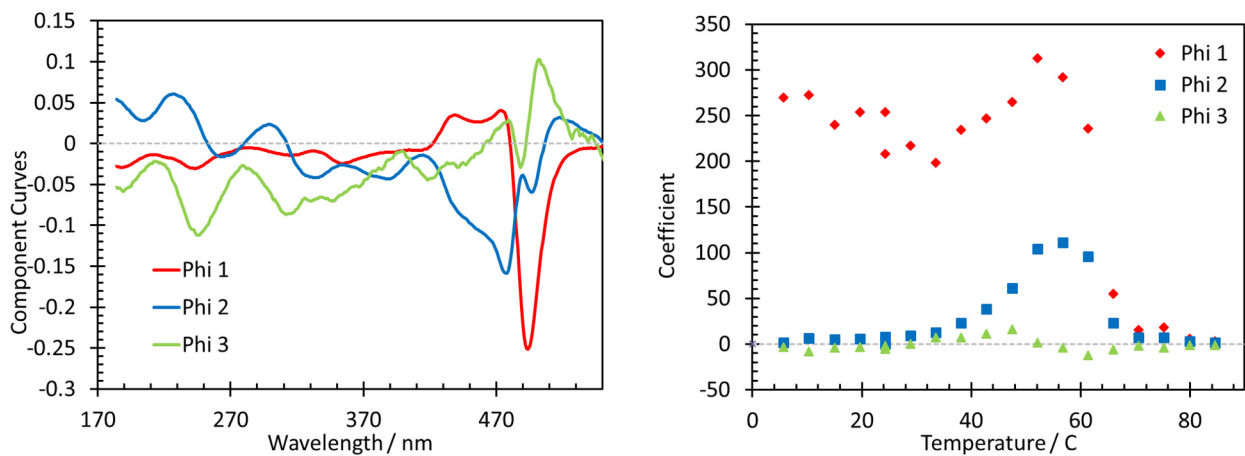


Figure S2-3: PCA of the Type B structural change with temperature of the CD spectra in Figure S2-2.

### S3: The conditions for developing Type A vs Type B structures

Dissolving Chlb fully in methanol took about 20 min at room temperature. The freshness of the dissolved sample before dilution (1:1) in water played a big role in the development of either Type A or Type B structures. It should be noted that in all cases, the samples were shielded from exposure to light by wrapping the containers in alu-foil. In Figure S3 a collection of anisotropy spectra are shown for various dilution times after dissolving the Chlb in methanol. We choose to show the anisotropy rather than the CD spectra, as variations in concentrations are normalized out when calculating the anisotropy by division of the absorbance (A);  $g = CD/A$ . Two spectra clearly develop into the same form: water dilution after 20 min in methanol at room temperature, and water dilution after 210 min where the dissolved Chlb was kept at 5°C. These are both of structure Type A. In contrast, the Type B structure was developed when the water is added 30, 60 and 80 minutes after dissolving in methanol and kept at room temperature. Thus leaving the Chlb/methanol at room temperature quickly ages the sample by magnesium loss, while storing the sample refrigerated keeps the sample fresh for hours.

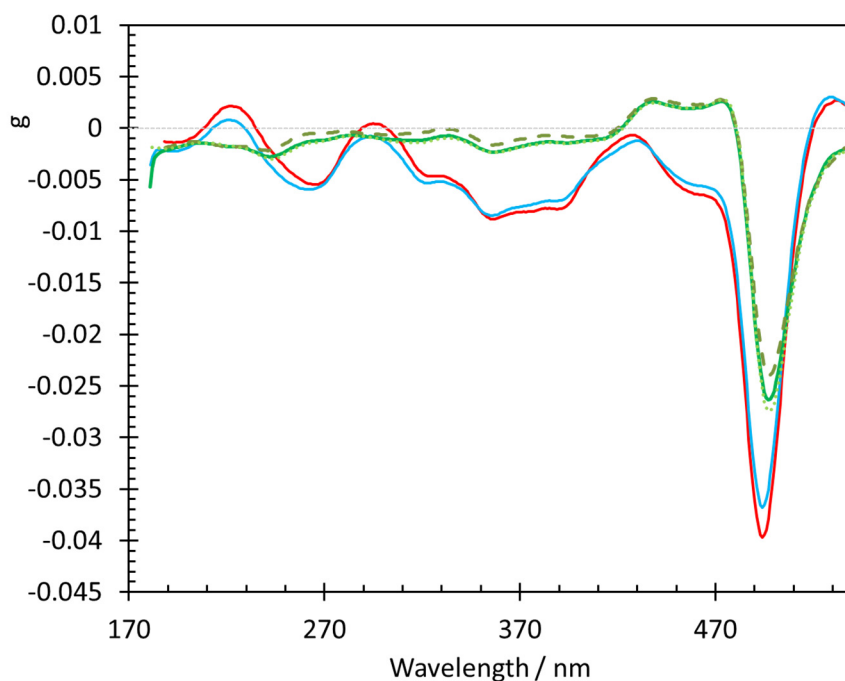


Figure S3: Anisotropy spectra of Chlb of fully developed Type A and B structures made from (1:1) dilution into water of Chlb/methanol of different freshness. Times from dissolving Chlb in methanol and storage conditions (RT = room temperature, 5°C = refrigerated) before dilution in water are: Red solid: 20 min/RT, Blue solid: 210 min/5°C, Green solid: 30 min/RT, Green dashed 60 min/RT and Green dotted 80 min/RT.

#### S4: Principal component analysis of the temporal development of structure Type C.

The Type C structure developed over time after added water as a (1:1) dilution of an aged Chlb/methanol sample (24 hours at 5°C, kept dark). The development of the CD spectrum is shown in figure 7 of the main paper, and shows a clear development of a structure starting from a near zero signal to a large signal with prominent bands near 455 nm (negative) and 500 nm (positive). The development looks like a smooth formation of a single structure. However, PCA of the set of data reveals a slightly more complicated picture. As with the previous principal component analyses of CD spectra, the third component coefficient is essentially zero, and only needed to represent the initial very low magnitude spectrum of Chlb/methanol in the early stages of development. The first component, Phi1, closely resembles the spectrum developed after 10 hours, and also has the dominating coefficient. But during the development of the Type C structure, an intermediate structure is revealed by the PCA as the coefficient for Phi2 first increases to reach a maximum after about 6 hours, and then reduces back down to zero, leaving only the final dominating spectral signature of the Type C structure.

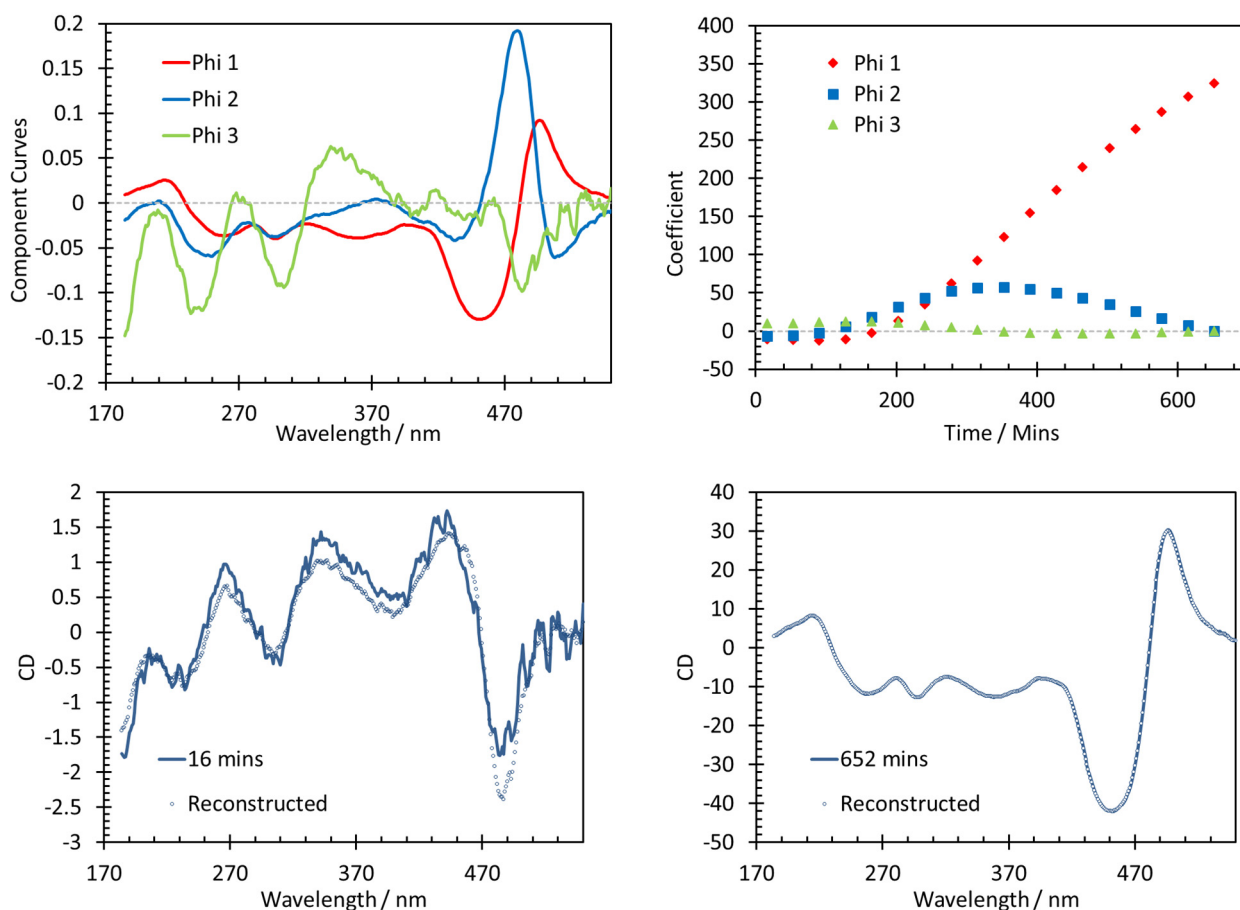


Figure S4: PCA of the CD spectra in Figure 7. The top left panel shows the component curves, and the top right panel shows the corresponding coefficients. The good quality of the reconstructions of the first and last spectra are shown in the two lower panels.

S5: Chlb dissolved in methanol.

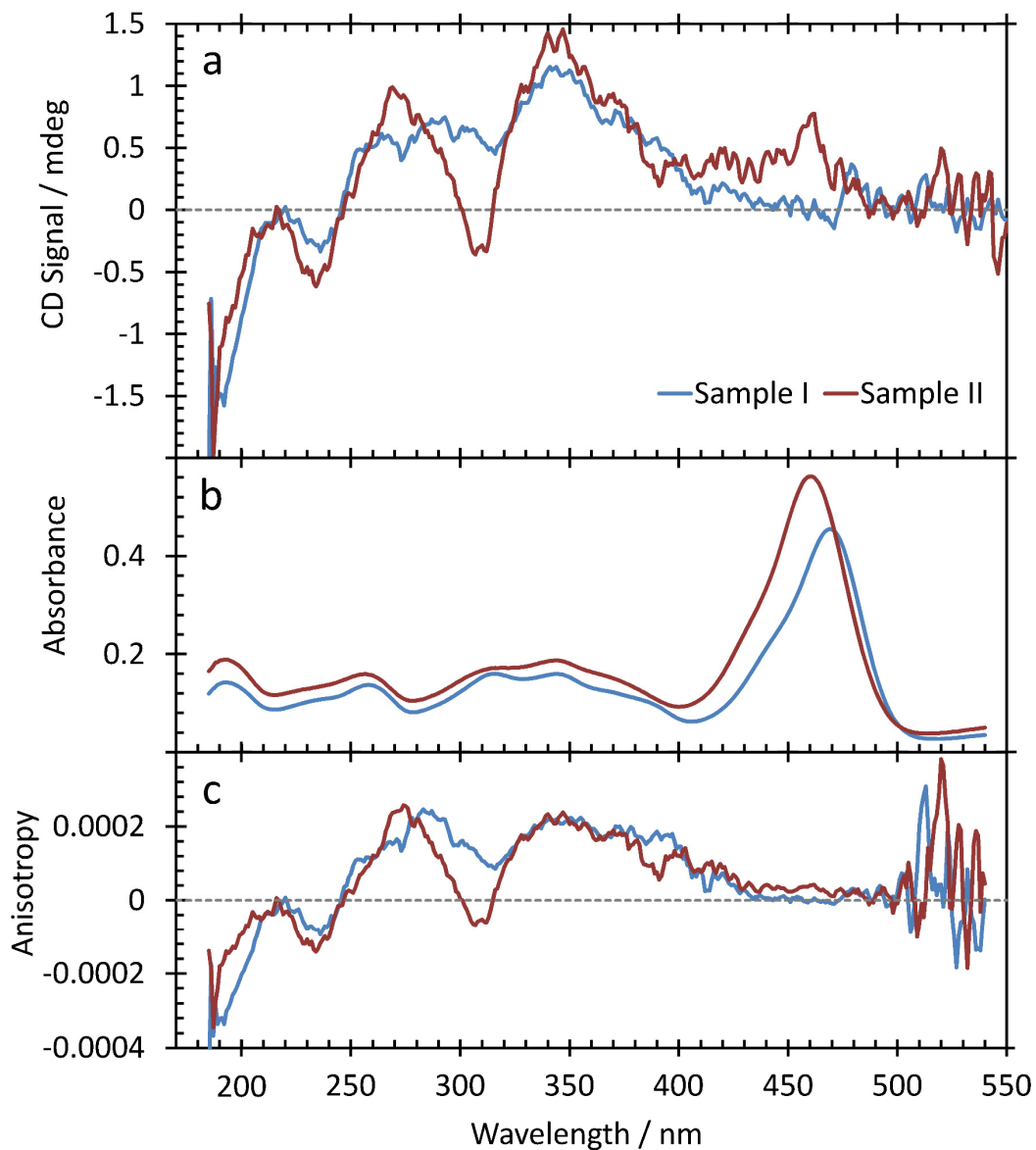


Figure S5: (a) CD spectra, (b) absorption spectra, and (c) anisotropy (CD/absorption) of Chlb in pure MeOH measured directly after Chlb was dissolved (Sample I) and the next day (Sample II).

## S6 Tabulated data

Figure 2: Chlb in methanol-water (1:1) measured 10 minutes to >8 hours after addition of water. The Chlb was dissolved in MeOH for 20 min at room temperature prior to addition of water.

Figure 2(a): CD spectra (mdeg).

| WL/nm | 10 mins | 28 mins | 47 min | 66 min | 85 min | 136 min | 155 min | 174 min | 517 mins |
|-------|---------|---------|--------|--------|--------|---------|---------|---------|----------|
| 550   | -0.02   | -0.03   | -0.42  | -0.09  | -0.59  | -0.34   | -0.72   | 0.18    | 0.55     |
| 549   | -0.32   | 0.03    | -0.28  | -0.21  | -0.68  | -0.44   | -0.56   | 0.5     | 0.54     |
| 548   | 0.06    | 0.34    | -0.12  | -0.14  | -0.35  | 0.28    | -0.04   | 1       | 0.7      |
| 547   | 0.4     | 0.15    | 0.3    | -0.27  | -0.08  | 0.37    | 0.43    | 0.62    | 0.75     |
| 546   | 0.34    | -0.13   | 0.32   | -0.44  | 0.04   | 0.53    | 0.95    | 0.56    | 0.89     |
| 545   | 0.17    | -0.04   | 0.21   | -0.43  | 0.3    | 0.86    | 1.35    | 0.73    | 1.37     |
| 544   | 0.07    | 0.05    | -0.23  | -0.53  | 0.3    | 1.14    | 1.83    | 1.01    | 1.68     |
| 543   | -0.02   | 0.22    | -0.45  | -0.26  | 0.16   | 1.36    | 2.12    | 1.59    | 1.9      |
| 542   | -0.01   | 0.12    | -0.09  | 0.1    | 0.47   | 2.04    | 2.45    | 1.88    | 2.35     |
| 541   | -0.06   | 0.15    | 0.03   | 0.52   | 0.69   | 2.36    | 2.65    | 2.3     | 2.75     |
| 540   | -0.07   | -0.08   | -0.09  | 0.62   | 1.14   | 2.43    | 2.75    | 2.92    | 2.93     |
| 539   | -0.18   | -0.33   | -0.51  | 0.74   | 1.51   | 2.69    | 3.15    | 3.3     | 3.33     |
| 538   | -0.26   | -0.42   | -0.71  | 0.29   | 1.5    | 2.98    | 3.44    | 3.67    | 3.6      |
| 537   | -0.05   | -0.37   | -0.94  | 0.26   | 1.75   | 3.21    | 3.36    | 4.14    | 3.8      |
| 536   | 0.03    | -0.43   | -0.62  | -0.04  | 1.9    | 3.51    | 4.06    | 4.34    | 4.26     |
| 535   | -0.01   | -0.12   | -0.38  | 0.11   | 1.83   | 3.75    | 4.57    | 4.61    | 4.56     |
| 534   | -0.19   | 0.03    | -0.14  | 0.26   | 1.95   | 4.07    | 4.96    | 5.01    | 4.88     |
| 533   | -0.23   | 0       | -0.1   | 0.54   | 1.9    | 4.45    | 5.33    | 5.21    | 5.26     |
| 532   | -0.42   | -0.15   | -0.11  | 0.5    | 1.85   | 4.84    | 5.27    | 5.23    | 5.41     |
| 531   | -0.18   | -0.1    | -0.16  | 0.69   | 2.06   | 4.92    | 4.96    | 5.23    | 5.4      |
| 530   | 0.05    | -0.36   | -0.23  | 0.4    | 2.25   | 4.97    | 5.12    | 5.05    | 5.33     |
| 529   | 0.29    | -0.24   | -0.28  | 0.38   | 2.21   | 4.8     | 5.17    | 4.8     | 5.37     |
| 528   | 0.3     | -0.27   | -0.5   | 0.49   | 2.05   | 4.8     | 5.18    | 4.77    | 5.51     |
| 527   | 0.34    | -0.17   | -0.59  | 0.39   | 1.55   | 4.6     | 4.59    | 4.71    | 5.37     |
| 526   | 0.08    | -0.2    | -0.62  | 0.43   | 1.33   | 4.58    | 4.14    | 4.45    | 5.11     |
| 525   | -0.14   | -0.42   | -0.95  | 0.31   | 1.17   | 4.03    | 3.58    | 3.9     | 4.87     |
| 524   | -0.31   | -0.79   | -1.2   | -0.01  | 1.31   | 3.68    | 3.12    | 3.35    | 4.33     |
| 523   | -0.46   | -0.91   | -1.28  | -0.35  | 1.28   | 2.78    | 2.53    | 2.7     | 3.91     |
| 522   | -0.44   | -0.95   | -1.75  | -0.71  | 1      | 1.85    | 2.09    | 2.01    | 3.45     |
| 521   | -0.37   | -0.77   | -1.84  | -1.25  | 0.5    | 0.61    | 1.19    | 1.17    | 2.64     |
| 520   | -0.39   | -0.84   | -1.95  | -1.6   | -0.07  | -0.46   | -0.02   | -0.14   | 1.62     |
| 519   | -0.48   | -0.88   | -2.24  | -2.13  | -0.68  | -1.71   | -1.57   | -1.77   | 0.59     |
| 518   | -0.43   | -0.99   | -2.33  | -2.49  | -1.45  | -3.02   | -3.45   | -3.81   | -0.77    |
| 517   | -0.55   | -1      | -2.47  | -2.84  | -2.43  | -4.96   | -5.78   | -6.12   | -2.53    |
| 516   | -0.38   | -1      | -2.97  | -3.45  | -3.62  | -7.4    | -8.04   | -8.68   | -4.57    |
| 515   | -0.4    | -1.13   | -3.12  | -4.29  | -5.18  | -10.45  | -10.91  | -11.52  | -6.99    |
| 514   | -0.47   | -1.42   | -3.45  | -5.09  | -6.78  | -13.59  | -14.22  | -14.84  | -9.8     |
| 513   | -0.6    | -1.74   | -4.04  | -6.24  | -8.53  | -17.1   | -18.18  | -18.93  | -12.94   |
| 512   | -0.65   | -1.96   | -4.52  | -7.07  | -10.46 | -21.2   | -22.67  | -23.74  | -16.62   |
| 511   | -0.74   | -2.14   | -5.12  | -8.32  | -12.67 | -26.1   | -28.02  | -29.1   | -21.02   |
| 510   | -0.91   | -2.44   | -5.76  | -9.74  | -15.15 | -31.65  | -34.04  | -35.14  | -26      |
| 509   | -1.28   | -2.73   | -6.63  | -11.48 | -18.02 | -38.15  | -40.81  | -42.06  | -31.62   |
| 508   | -1.45   | -3.02   | -7.58  | -13.48 | -21.3  | -45.31  | -48.24  | -49.78  | -37.97   |
| 507   | -1.38   | -3.41   | -8.75  | -15.6  | -24.92 | -53.21  | -56.69  | -58.47  | -44.96   |
| 506   | -1.23   | -3.5    | -9.77  | -17.54 | -28.82 | -61.69  | -65.86  | -68.18  | -52.89   |
| 505   | -1.36   | -3.86   | -10.79 | -19.94 | -33.22 | -71.15  | -76.08  | -78.62  | -61.55   |
| 504   | -1.68   | -4.25   | -11.61 | -22.46 | -38.22 | -81.38  | -87.14  | -89.86  | -70.96   |
| 503   | -1.91   | -4.73   | -12.67 | -25.21 | -43.56 | -92.55  | -98.83  | -101.99 | -81.1    |
| 502   | -2.07   | -5.24   | -13.95 | -28.31 | -48.96 | -104.07 | -111.14 | -114.69 | -91.83   |
| 501   | -2.33   | -5.84   | -15.53 | -31.3  | -54.7  | -116.08 | -124.01 | -127.54 | -102.82  |
| 500   | -2.42   | -6.3    | -16.99 | -34.26 | -60.59 | -128.07 | -136.98 | -141.11 | -114.22  |
| 499   | -2.61   | -6.73   | -18.15 | -37.21 | -66.33 | -140.14 | -149.92 | -154.51 | -125.44  |
| 498   | -2.82   | -7.24   | -18.96 | -40.11 | -72.19 | -152.07 | -162.37 | -167.53 | -136.61  |
| 497   | -2.85   | -7.8    | -19.8  | -42.79 | -77.41 | -163.52 | -174.52 | -180.19 | -147.23  |
| 496   | -2.84   | -8.06   | -20.68 | -45.25 | -81.96 | -173.82 | -185.57 | -191.43 | -157.06  |
| 495   | -2.91   | -8.33   | -21.53 | -47.32 | -85.99 | -182.88 | -194.97 | -200.78 | -165.46  |
| 494   | -2.95   | -8.35   | -22.01 | -48.78 | -89.38 | -190.06 | -202.48 | -208.38 | -172.24  |
| 493   | -3.18   | -8.2    | -22.31 | -49.76 | -91.87 | -194.93 | -207.67 | -213.49 | -176.91  |
| 492   | -3.44   | -8.11   | -22.13 | -50.31 | -93.37 | -197.38 | -210    | -216.12 | -179.22  |
| 491   | -3.62   | -8.11   | -21.81 | -50.13 | -93.32 | -197.14 | -209.87 | -215.82 | -178.9   |
| 490   | -3.73   | -7.88   | -20.97 | -49.16 | -92.09 | -194.15 | -206.89 | -212.59 | -176.16  |
| 489   | -3.74   | -7.74   | -20.04 | -47.61 | -89.56 | -188.74 | -201.2  | -206.55 | -170.96  |
| 488   | -3.72   | -7.41   | -18.74 | -45.28 | -85.95 | -181.19 | -192.98 | -198.09 | -163.73  |
| 487   | -3.87   | -6.77   | -17.41 | -42.58 | -81.72 | -171.8  | -182.68 | -187.66 | -154.93  |
| 486   | -3.84   | -6.13   | -15.73 | -39.5  | -76.66 | -161.36 | -171.14 | -175.64 | -144.65  |
| 485   | -3.84   | -5.64   | -14.07 | -36.11 | -70.91 | -149.79 | -158.59 | -162.46 | -133.4   |
| 484   | -3.87   | -4.95   | -12.28 | -32.4  | -64.85 | -137.34 | -145.55 | -149.12 | -121.65  |
| 483   | -3.85   | -4.51   | -10.83 | -28.93 | -58.73 | -124.69 | -132.41 | -135.96 | -109.79  |
| 482   | -3.47   | -4.2    | -9.22  | -25.7  | -52.65 | -112.5  | -119.35 | -122.8  | -98.32   |
| 481   | -3.35   | -3.66   | -7.71  | -22.66 | -47.09 | -100.81 | -106.94 | -110.34 | -87.75   |
| 480   | -3.06   | -3.23   | -6.29  | -19.92 | -42.06 | -90.55  | -95.95  | -98.79  | -78.2    |
| 479   | -2.86   | -2.72   | -5.12  | -17.49 | -37.42 | -81.18  | -86.17  | -88.32  | -69.83   |
| 478   | -2.76   | -1.93   | -4.23  | -15.2  | -33.34 | -72.9   | -77.65  | -79.12  | -62.48   |
| 477   | -2.67   | -1.71   | -3.51  | -13.37 | -29.95 | -65.89  | -70.23  | -71.66  | -56.13   |
| 476   | -2.4    | -1.51   | -3.03  | -11.9  | -27.11 | -60     | -63.73  | -65.01  | -50.83   |
| 475   | -2.33   | -1.44   | -2.68  | -10.77 | -24.82 | -54.93  | -58.27  | -59.61  | -46.49   |
| 474   | -2.09   | -1.14   | -2.27  | -9.97  | -23.13 | -50.91  | -53.82  | -55.36  | -42.97   |
| 473   | -1.89   | -0.68   | -2     | -9.4   | -21.61 | -47.67  | -50.34  | -51.85  | -40.16   |
| 472   | -1.78   | -0.17   | -1.72  | -9.03  | -20.37 | -45.3   | -47.83  | -49.11  | -38.11   |
| 471   | -1.62   | -0.11   | -1.4   | -8.62  | -19.33 | -43.47  | -45.93  | -47.04  | -36.48   |
| 470   | -1.38   | -0.05   | -1.13  | -8.07  | -18.62 | -41.78  | -44.53  | -45.32  | -35.29   |
| 469   | -1.19   | -0.19   | -0.95  | -7.62  | -18.09 | -40.59  | -43.37  | -44.08  | -34.37   |
| 468   | -0.91   | 0.1     | -0.96  | -7.29  | -17.88 | -39.77  | -42.36  | -43.19  | -33.71   |
| 467   | -0.65   | 0.36    | -0.92  | -7.09  | -17.66 | -39.3   | -41.54  | -42.44  | -33.12   |
| 466   | -0.48   | 0.78    | -0.83  | -7.02  | -17.46 | -39     | -40.84  | -42.01  | -32.83   |
| 465   | -0.11   | 0.92    | -0.7   | -6.8   | -17.15 | -38.67  | -40.42  | -41.53  | -32.6    |
| 464   | 0.09    | 0.71    | -0.52  | -6.64  | -17.06 | -38.39  | -40.45  | -41.14  | -32.35   |



|     |      |       |       |       |        |        |        |        |        |
|-----|------|-------|-------|-------|--------|--------|--------|--------|--------|
| 463 | 0.23 | 0.89  | -0.18 | -6.47 | -16.95 | -38.15 | -40.27 | -40.8  | -32.09 |
| 462 | 0.15 | 1.12  | -0.17 | -6.45 | -16.87 | -38.05 | -40.11 | -40.54 | -31.94 |
| 461 | 0.19 | 1.32  | -0.12 | -6.53 | -16.85 | -37.83 | -39.87 | -40.25 | -31.72 |
| 460 | 0.27 | 1.45  | -0.16 | -6.59 | -16.77 | -37.37 | -39.35 | -40.08 | -31.53 |
| 459 | 0.55 | 1.4   | -0.04 | -6.44 | -16.44 | -36.81 | -38.85 | -39.66 | -31.46 |
| 458 | 0.76 | 1.43  | 0.08  | -6.35 | -16.28 | -36.32 | -38.35 | -39.01 | -31.24 |
| 457 | 0.98 | 1.71  | 0.41  | -6.14 | -16.08 | -35.78 | -37.84 | -38.38 | -30.93 |
| 456 | 1.05 | 1.96  | 0.48  | -5.93 | -15.89 | -35.18 | -37.13 | -37.72 | -30.56 |
| 455 | 1.39 | 2.04  | 0.64  | -5.67 | -15.49 | -34.47 | -36.34 | -37.03 | -30.03 |
| 454 | 1.67 | 2.21  | 0.59  | -5.52 | -15.25 | -33.72 | -35.55 | -36.39 | -29.38 |
| 453 | 1.85 | 2.3   | 0.68  | -5.4  | -14.78 | -32.89 | -34.59 | -35.53 | -28.7  |
| 452 | 1.82 | 2.34  | 0.68  | -5.39 | -14.39 | -32.06 | -33.58 | -34.52 | -28.06 |
| 451 | 1.85 | 2.46  | 0.86  | -5.21 | -13.94 | -31.12 | -32.6  | -33.49 | -27.3  |
| 450 | 1.74 | 2.48  | 0.87  | -4.93 | -13.57 | -30.09 | -31.51 | -32.34 | -26.53 |
| 449 | 1.79 | 2.43  | 1.09  | -4.54 | -13.05 | -29.01 | -30.39 | -31.1  | -25.79 |
| 448 | 2.02 | 2.5   | 1.25  | -4.1  | -12.72 | -27.82 | -29.28 | -29.8  | -24.88 |
| 447 | 2.08 | 2.58  | 1.41  | -3.96 | -12.25 | -26.58 | -27.97 | -28.46 | -23.87 |
| 446 | 2.14 | 2.62  | 1.56  | -3.79 | -11.67 | -25.33 | -26.63 | -27.08 | -22.87 |
| 445 | 2.35 | 2.75  | 1.79  | -3.53 | -11.06 | -23.91 | -25.28 | -25.56 | -21.71 |
| 444 | 2.26 | 2.92  | 1.85  | -3.22 | -10.35 | -22.54 | -23.77 | -23.9  | -20.5  |
| 443 | 2.38 | 3.15  | 1.94  | -2.94 | -9.59  | -21.14 | -22.21 | -22.34 | -19.31 |
| 442 | 2.5  | 3.2   | 1.87  | -2.67 | -8.92  | -19.64 | -20.53 | -20.86 | -18.09 |
| 441 | 2.45 | 3.26  | 1.83  | -2.41 | -8.29  | -18.14 | -18.7  | -19.15 | -16.85 |
| 440 | 2.4  | 3.34  | 1.95  | -2.05 | -7.52  | -16.6  | -16.89 | -17.28 | -15.54 |
| 439 | 2.39 | 3.22  | 2.12  | -1.62 | -6.92  | -14.81 | -15.22 | -15.5  | -14.19 |
| 438 | 2.31 | 3.1   | 2.13  | -1.24 | -6.17  | -13.18 | -13.52 | -13.67 | -12.99 |
| 437 | 2.35 | 3.14  | 2.18  | -0.95 | -5.42  | -11.47 | -11.9  | -11.99 | -11.74 |
| 436 | 2.41 | 3.04  | 2.05  | -0.78 | -4.74  | -9.94  | -10.25 | -10.41 | -10.56 |
| 435 | 2.32 | 2.85  | 2.01  | -0.69 | -4.08  | -8.45  | -8.74  | -8.74  | -9.5   |
| 434 | 2.27 | 2.79  | 1.98  | -0.63 | -3.46  | -7.14  | -7.39  | -7.2   | -8.5   |
| 433 | 2.2  | 2.65  | 1.95  | -0.63 | -3.15  | -5.94  | -6.28  | -6.22  | -7.65  |
| 432 | 2.12 | 2.47  | 1.71  | -0.62 | -2.86  | -5.2   | -5.3   | -5.35  | -7.09  |
| 431 | 2.03 | 2.42  | 1.55  | -0.54 | -2.77  | -4.48  | -4.52  | -4.66  | -6.65  |
| 430 | 2.01 | 2.29  | 1.28  | -0.47 | -2.72  | -4.14  | -3.98  | -4.15  | -6.33  |
| 429 | 1.93 | 2.1   | 1.2   | -0.6  | -2.71  | -3.74  | -3.69  | -3.62  | -6.12  |
| 428 | 1.92 | 1.85  | 0.95  | -0.7  | -2.65  | -3.54  | -3.44  | -3.25  | -6.05  |
| 427 | 1.69 | 1.68  | 0.78  | -1    | -2.7   | -3.48  | -3.48  | -3.22  | -6.08  |
| 426 | 1.55 | 1.52  | 0.58  | -1.25 | -2.81  | -3.54  | -3.47  | -3.23  | -6.2   |
| 425 | 1.37 | 1.39  | 0.39  | -1.43 | -2.94  | -3.63  | -3.52  | -3.45  | -6.4   |
| 424 | 1.23 | 1.22  | 0.26  | -1.57 | -3.08  | -3.81  | -3.83  | -3.78  | -6.63  |
| 423 | 1.24 | 1.1   | 0.14  | -1.72 | -3.22  | -4.09  | -4.17  | -4.14  | -6.88  |
| 422 | 1.26 | 0.96  | -0.11 | -1.73 | -3.26  | -4.3   | -4.4   | -4.45  | -7.2   |
| 421 | 1.15 | 0.85  | -0.19 | -1.87 | -3.37  | -4.65  | -4.9   | -4.81  | -7.45  |
| 420 | 1.11 | 0.73  | -0.24 | -2    | -3.65  | -5.01  | -5.38  | -5.17  | -7.73  |
| 419 | 1.01 | 0.59  | -0.32 | -2.16 | -3.9   | -5.38  | -5.65  | -5.52  | -7.97  |
| 418 | 0.83 | 0.47  | -0.36 | -2.34 | -4.14  | -5.64  | -6     | -5.91  | -8.14  |
| 417 | 0.84 | 0.44  | -0.49 | -2.53 | -4.31  | -6.04  | -6.3   | -6.4   | -8.26  |
| 416 | 0.86 | 0.36  | -0.68 | -2.54 | -4.48  | -6.32  | -6.49  | -6.8   | -8.38  |
| 415 | 0.75 | 0.38  | -0.79 | -2.73 | -4.54  | -6.7   | -6.79  | -7.19  | -8.51  |
| 414 | 0.69 | 0.31  | -0.75 | -2.76 | -4.62  | -7.02  | -7.31  | -7.5   | -8.73  |
| 413 | 0.55 | 0.22  | -0.82 | -2.79 | -4.79  | -7.47  | -7.74  | -7.77  | -8.96  |
| 412 | 0.5  | 0.24  | -0.83 | -2.74 | -4.91  | -7.85  | -8.09  | -8.16  | -9.23  |
| 411 | 0.56 | 0.25  | -0.85 | -2.75 | -5.01  | -8.26  | -8.56  | -8.63  | -9.47  |
| 410 | 0.62 | 0.29  | -0.84 | -2.65 | -5.14  | -8.72  | -8.91  | -9.08  | -9.6   |
| 409 | 0.52 | 0.38  | -0.9  | -2.81 | -5.32  | -9.14  | -9.43  | -9.6   | -9.76  |
| 408 | 0.55 | 0.33  | -0.85 | -2.92 | -5.48  | -9.59  | -10.08 | -10.17 | -9.98  |
| 407 | 0.38 | 0.23  | -0.98 | -2.99 | -5.79  | -10.19 | -10.69 | -10.78 | -10.29 |
| 406 | 0.31 | 0.18  | -1.08 | -3.02 | -6.12  | -10.78 | -11.23 | -11.57 | -10.74 |
| 405 | 0.34 | 0.14  | -1.19 | -3.16 | -6.32  | -11.42 | -11.89 | -12.36 | -11.24 |
| 404 | 0.42 | 0.25  | -1.19 | -3.33 | -6.56  | -12.21 | -12.58 | -13.13 | -11.79 |
| 403 | 0.46 | 0.24  | -1.11 | -3.62 | -6.9   | -12.97 | -13.58 | -14.04 | -12.46 |
| 402 | 0.58 | 0.25  | -1.04 | -3.91 | -7.19  | -13.93 | -14.65 | -15    | -13.13 |
| 401 | 0.58 | 0.23  | -1.19 | -4.12 | -7.6   | -14.98 | -15.84 | -16.08 | -13.87 |
| 400 | 0.42 | 0.27  | -1.33 | -4.39 | -8.18  | -16.04 | -17.06 | -17.2  | -14.78 |
| 399 | 0.45 | 0.24  | -1.43 | -4.65 | -8.76  | -17.16 | -18.23 | -18.43 | -15.69 |
| 398 | 0.51 | 0.22  | -1.55 | -4.91 | -9.38  | -18.43 | -19.35 | -19.71 | -16.67 |
| 397 | 0.5  | 0.09  | -1.61 | -5.13 | -10.1  | -19.46 | -20.47 | -21.03 | -17.65 |
| 396 | 0.58 | 0.03  | -1.76 | -5.43 | -10.68 | -20.59 | -21.59 | -22.33 | -18.63 |
| 395 | 0.56 | 0.01  | -1.96 | -5.73 | -11.29 | -21.71 | -22.73 | -23.55 | -19.59 |
| 394 | 0.56 | 0.13  | -2.01 | -6.04 | -11.85 | -22.69 | -23.67 | -24.45 | -20.51 |
| 393 | 0.65 | 0.2   | -2.07 | -6.39 | -12.32 | -23.65 | -24.53 | -25.32 | -21.31 |
| 392 | 0.7  | 0.2   | -2.12 | -6.65 | -12.62 | -24.44 | -25.24 | -26    | -21.98 |
| 391 | 0.76 | 0.25  | -2.11 | -6.8  | -12.96 | -24.88 | -25.8  | -26.53 | -22.45 |
| 390 | 0.78 | 0.22  | -2.13 | -6.94 | -13.17 | -25.23 | -26.3  | -26.97 | -22.81 |
| 389 | 0.71 | 0.16  | -2.03 | -7.06 | -13.25 | -25.39 | -26.65 | -27.28 | -23.12 |
| 388 | 0.72 | 0.2   | -2.01 | -7.09 | -13.41 | -25.5  | -26.86 | -27.45 | -23.31 |
| 387 | 0.71 | 0.17  | -2.06 | -7.1  | -13.55 | -25.68 | -26.95 | -27.58 | -23.54 |
| 386 | 0.67 | 0.08  | -2.23 | -7.18 | -13.65 | -25.74 | -27.04 | -27.67 | -23.77 |
| 385 | 0.76 | 0.22  | -2.35 | -7.19 | -13.82 | -25.89 | -27.13 | -27.85 | -23.95 |
| 384 | 0.7  | 0.16  | -2.39 | -7.32 | -14    | -26.09 | -27.3  | -27.99 | -24.14 |
| 383 | 0.75 | 0.18  | -2.34 | -7.48 | -14.08 | -26.22 | -27.46 | -28.15 | -24.38 |
| 382 | 0.84 | 0.16  | -2.39 | -7.54 | -14.24 | -26.42 | -27.73 | -28.39 | -24.54 |
| 381 | 0.83 | 0.03  | -2.4  | -7.59 | -14.38 | -26.64 | -27.96 | -28.57 | -24.82 |
| 380 | 0.79 | -0.01 | -2.54 | -7.72 | -14.61 | -26.91 | -28.29 | -28.96 | -25.15 |
| 379 | 0.72 | 0.17  | -2.62 | -7.81 | -14.83 | -27.23 | -28.63 | -29.41 | -25.45 |
| 378 | 0.62 | 0.21  | -2.55 | -7.89 | -15.08 | -27.58 | -28.9  | -29.75 | -25.78 |
| 377 | 0.64 | 0.24  | -2.59 | -8.18 | -15.33 | -27.98 | -29.25 | -30.17 | -26.16 |
| 376 | 0.65 | 0.22  | -2.71 | -8.38 | -15.47 | -28.36 | -29.59 | -30.4  | -26.51 |
| 375 | 0.63 | 0.12  | -2.81 | -8.61 | -15.62 | -28.65 | -29.96 | -30.52 | -26.87 |
| 374 | 0.64 | 0.01  | -2.94 | -8.69 | -15.86 | -28.95 | -30.26 | -30.78 | -27.24 |
| 373 | 0.66 | 0.03  | -3.01 | -8.79 | -16.06 | -29.18 | -30.47 | -31.01 | -27.5  |
| 372 | 0.68 | -0.02 | -3.09 | -8.85 | -16.21 | -29.38 | -30.6  | -31.2  | -27.69 |
| 371 | 0.68 | -0.03 | -3.06 | -9.03 | -16.3  | -29.49 | -30.67 | -31.39 | -27.9  |
| 370 | 0.62 | 0     | -3.09 | -9.18 | -16.39 | -29.68 | -30.76 | -31.5  | -28.13 |
| 369 | 0.59 | -0.02 | -3.11 | -9.24 | -16.52 | -29.73 | -30.94 | -31.63 | -28.32 |
| 368 | 0.55 | -0.12 | -3.2  | -9.19 | -16.72 | -29.86 | -31.09 | -31.89 | -28.58 |
| 367 | 0.57 | -0.1  | -3.26 | -9.36 | -16.91 | -30.14 | -31.26 | -32.21 | -28.82 |
| 366 | 0.58 | -0.18 | -3.46 | -9.46 | -17.2  | -30.48 | -31.66 | -32.56 | -29.11 |
| 365 | 0.68 | -0.26 | -3.5  | -9.61 | -17.48 | -30.88 | -32.02 | -32.9  | -29.45 |

|     |      |       |       |        |        |        |        |        |        |
|-----|------|-------|-------|--------|--------|--------|--------|--------|--------|
| 364 | 0.85 | -0.21 | -3.51 | -9.76  | -17.68 | -31.36 | -32.38 | -33.22 | -29.86 |
| 363 | 0.85 | -0.14 | -3.64 | -9.96  | -17.94 | -31.79 | -32.88 | -33.68 | -30.35 |
| 362 | 0.86 | -0.07 | -3.84 | -10.15 | -18.27 | -32.25 | -33.46 | -34.24 | -30.83 |
| 361 | 0.82 | -0.03 | -3.84 | -10.51 | -18.57 | -32.75 | -34.01 | -34.8  | -31.4  |
| 360 | 0.8  | -0.1  | -3.94 | -10.66 | -18.95 | -33.34 | -34.63 | -35.43 | -32.02 |
| 359 | 0.81 | -0.26 | -3.92 | -10.9  | -19.27 | -33.94 | -35.17 | -36.03 | -32.62 |
| 358 | 0.81 | -0.31 | -3.86 | -11.04 | -19.62 | -34.46 | -35.75 | -36.61 | -33.28 |
| 357 | 0.86 | -0.28 | -4.03 | -11.26 | -19.96 | -34.94 | -36.31 | -37.2  | -33.92 |
| 356 | 0.86 | -0.29 | -4.2  | -11.49 | -20.29 | -35.39 | -36.91 | -37.75 | -34.44 |
| 355 | 0.94 | -0.19 | -4.18 | -11.65 | -20.58 | -35.7  | -37.27 | -38    | -34.81 |
| 354 | 1.09 | -0.11 | -4.31 | -11.82 | -20.81 | -35.91 | -37.28 | -38.08 | -35.08 |
| 353 | 1.13 | -0.08 | -4.33 | -11.87 | -20.86 | -35.89 | -37.18 | -37.97 | -35.19 |
| 352 | 1.2  | 0.04  | -4.21 | -11.83 | -20.83 | -35.57 | -36.83 | -37.68 | -35.05 |
| 351 | 1.19 | 0.2   | -4.14 | -11.72 | -20.58 | -34.99 | -36.28 | -37.15 | -34.79 |
| 350 | 1.2  | 0.21  | -3.98 | -11.53 | -20.17 | -34.31 | -35.58 | -36.48 | -34.32 |
| 349 | 1.25 | 0.21  | -3.77 | -11.33 | -19.7  | -33.49 | -34.71 | -35.57 | -33.67 |
| 348 | 1.35 | 0.13  | -3.72 | -11.14 | -19.15 | -32.53 | -33.69 | -34.49 | -32.91 |
| 347 | 1.39 | 0.2   | -3.63 | -10.78 | -18.54 | -31.45 | -32.59 | -33.23 | -32.07 |
| 346 | 1.39 | 0.24  | -3.47 | -10.46 | -18.03 | -30.35 | -31.39 | -32    | -31.05 |
| 345 | 1.41 | 0.38  | -3.37 | -10.04 | -17.45 | -29.17 | -30.22 | -30.77 | -30.05 |
| 344 | 1.52 | 0.46  | -3.24 | -9.69  | -16.78 | -28.02 | -29.01 | -29.55 | -29.1  |
| 343 | 1.61 | 0.58  | -3.06 | -9.37  | -16.03 | -26.96 | -27.88 | -28.36 | -28.17 |
| 342 | 1.7  | 0.67  | -2.94 | -9.07  | -15.38 | -25.91 | -26.84 | -27.27 | -27.3  |
| 341 | 1.7  | 0.77  | -2.8  | -8.79  | -14.87 | -24.96 | -25.87 | -26.19 | -26.53 |
| 340 | 1.63 | 0.76  | -2.65 | -8.47  | -14.52 | -24.11 | -24.97 | -25.36 | -25.77 |
| 339 | 1.7  | 0.77  | -2.52 | -8.18  | -14.16 | -23.38 | -24.19 | -24.78 | -25.08 |
| 338 | 1.71 | 0.76  | -2.39 | -7.93  | -13.84 | -22.67 | -23.48 | -24.21 | -24.49 |
| 337 | 1.72 | 0.77  | -2.29 | -7.67  | -13.44 | -22.08 | -22.9  | -23.57 | -23.94 |
| 336 | 1.77 | 0.78  | -2.24 | -7.47  | -13.14 | -21.61 | -22.31 | -23    | -23.43 |
| 335 | 1.77 | 0.79  | -2.28 | -7.37  | -12.81 | -21.14 | -21.8  | -22.34 | -22.93 |
| 334 | 1.77 | 0.84  | -2.23 | -7.27  | -12.61 | -20.67 | -21.31 | -21.72 | -22.46 |
| 333 | 1.78 | 0.87  | -2.17 | -7.2   | -12.41 | -20.28 | -20.91 | -21.3  | -22.07 |
| 332 | 1.67 | 0.87  | -2.15 | -7.13  | -12.24 | -19.83 | -20.58 | -20.91 | -21.77 |
| 331 | 1.66 | 0.84  | -2.15 | -7.08  | -12.14 | -19.48 | -20.24 | -20.64 | -21.51 |
| 330 | 1.67 | 0.8   | -2.22 | -7.03  | -12.13 | -19.33 | -20    | -20.54 | -21.34 |
| 329 | 1.58 | 0.77  | -2.29 | -7.07  | -12.07 | -19.22 | -19.91 | -20.4  | -21.27 |
| 328 | 1.54 | 0.74  | -2.26 | -7.08  | -12.08 | -19.25 | -19.78 | -20.26 | -21.27 |
| 327 | 1.52 | 0.75  | -2.34 | -7.19  | -12.15 | -19.37 | -19.82 | -20.2  | -21.39 |
| 326 | 1.42 | 0.67  | -2.47 | -7.25  | -12.13 | -19.4  | -19.85 | -20.23 | -21.51 |
| 325 | 1.41 | 0.61  | -2.55 | -7.3   | -12.17 | -19.43 | -19.83 | -20.36 | -21.62 |
| 324 | 1.41 | 0.49  | -2.64 | -7.4   | -12.2  | -19.37 | -19.76 | -20.41 | -21.68 |
| 323 | 1.36 | 0.38  | -2.62 | -7.49  | -12.25 | -19.29 | -19.74 | -20.35 | -21.69 |
| 322 | 1.31 | 0.3   | -2.77 | -7.63  | -12.27 | -19.14 | -19.54 | -20.13 | -21.61 |
| 321 | 1.35 | 0.27  | -2.91 | -7.66  | -12.2  | -18.8  | -19.25 | -19.74 | -21.46 |
| 320 | 1.33 | 0.16  | -2.99 | -7.55  | -12.07 | -18.32 | -18.76 | -19.26 | -21.17 |
| 319 | 1.26 | 0.12  | -2.85 | -7.41  | -11.8  | -17.66 | -18.16 | -18.55 | -20.72 |
| 318 | 1.19 | 0.1   | -2.81 | -7.25  | -11.38 | -16.84 | -17.32 | -17.67 | -20.08 |
| 317 | 1.12 | 0.12  | -2.64 | -6.96  | -10.86 | -15.92 | -16.34 | -16.6  | -19.28 |
| 316 | 1.09 | 0.09  | -2.71 | -6.67  | -10.26 | -14.89 | -15.2  | -15.42 | -18.34 |
| 315 | 1.04 | 0.05  | -2.73 | -6.26  | -9.55  | -13.72 | -13.95 | -14.14 | -17.42 |
| 314 | 0.94 | -0.04 | -2.65 | -5.8   | -8.91  | -12.53 | -12.59 | -12.81 | -16.33 |
| 313 | 0.87 | -0.03 | -2.47 | -5.38  | -8.26  | -11.15 | -11.23 | -11.37 | -15.15 |
| 312 | 0.8  | -0.01 | -2.29 | -5.02  | -7.49  | -9.79  | -9.77  | -9.97  | -13.98 |
| 311 | 0.74 | 0.01  | -2.09 | -4.73  | -6.76  | -8.42  | -8.58  | -8.64  | -12.78 |
| 310 | 0.82 | 0     | -1.97 | -4.37  | -6.01  | -7.16  | -7.31  | -7.31  | -11.59 |
| 309 | 0.79 | -0.01 | -1.86 | -4.03  | -5.32  | -6     | -6.1   | -6.12  | -10.51 |
| 308 | 0.68 | 0.06  | -1.64 | -3.59  | -4.71  | -4.89  | -5.04  | -4.98  | -9.42  |
| 307 | 0.65 | 0.14  | -1.48 | -3.19  | -4.16  | -3.84  | -4.04  | -3.91  | -8.48  |
| 306 | 0.54 | 0.12  | -1.26 | -2.83  | -3.62  | -2.96  | -3.11  | -3.01  | -7.59  |
| 305 | 0.63 | 0.23  | -1.14 | -2.53  | -3.1   | -2.15  | -2.33  | -2.21  | -6.71  |
| 304 | 0.71 | 0.17  | -1.12 | -2.28  | -2.63  | -1.59  | -1.57  | -1.48  | -6     |
| 303 | 0.8  | 0.13  | -1.07 | -2.05  | -2.14  | -1.08  | -0.86  | -0.83  | -5.3   |
| 302 | 0.78 | 0.16  | -0.93 | -1.86  | -1.8   | -0.45  | -0.27  | -0.27  | -4.69  |
| 301 | 0.83 | 0.11  | -0.84 | -1.68  | -1.53  | 0.04   | 0.36   | 0.35   | -4.18  |
| 300 | 0.79 | 0.12  | -0.8  | -1.38  | -1.25  | 0.58   | 0.86   | 0.81   | -3.65  |
| 299 | 0.74 | 0.22  | -0.8  | -1.14  | -1.08  | 0.77   | 1.17   | 1.16   | -3.19  |
| 298 | 0.71 | 0.24  | -0.75 | -0.99  | -0.79  | 0.96   | 1.32   | 1.46   | -2.81  |
| 297 | 0.71 | 0.23  | -0.56 | -0.83  | -0.65  | 1.15   | 1.38   | 1.51   | -2.52  |
| 296 | 0.7  | 0.22  | -0.43 | -0.81  | -0.64  | 1.33   | 1.33   | 1.48   | -2.33  |
| 295 | 0.8  | 0.2   | -0.33 | -0.82  | -0.6   | 1.35   | 1.33   | 1.53   | -2.21  |
| 294 | 0.83 | 0.29  | -0.41 | -0.77  | -0.53  | 1.2    | 1.26   | 1.4    | -2.19  |
| 293 | 0.81 | 0.32  | -0.39 | -0.78  | -0.52  | 1.01   | 1.09   | 1.32   | -2.2   |
| 292 | 0.68 | 0.3   | -0.38 | -0.86  | -0.57  | 0.77   | 0.84   | 1.15   | -2.24  |
| 291 | 0.6  | 0.26  | -0.35 | -0.9   | -0.76  | 0.47   | 0.63   | 0.71   | -2.39  |
| 290 | 0.6  | 0.23  | -0.38 | -0.94  | -0.92  | 0.15   | 0.25   | 0.33   | -2.57  |
| 289 | 0.58 | 0.24  | -0.46 | -1.03  | -1.15  | -0.24  | -0.18  | -0.15  | -2.79  |
| 288 | 0.62 | 0.26  | -0.56 | -1.09  | -1.31  | -0.77  | -0.62  | -0.68  | -3.09  |
| 287 | 0.63 | 0.25  | -0.52 | -1.13  | -1.47  | -1.3   | -1.16  | -1.13  | -3.35  |
| 286 | 0.53 | 0.28  | -0.49 | -1.27  | -1.75  | -1.71  | -1.66  | -1.64  | -3.65  |
| 285 | 0.52 | 0.41  | -0.56 | -1.44  | -2.03  | -2.22  | -2.25  | -2.27  | -4.05  |
| 284 | 0.5  | 0.41  | -0.61 | -1.71  | -2.36  | -2.81  | -2.94  | -2.97  | -4.56  |
| 283 | 0.53 | 0.39  | -0.77 | -1.93  | -2.86  | -3.51  | -3.69  | -3.75  | -5.12  |
| 282 | 0.58 | 0.26  | -0.87 | -2.3   | -3.29  | -4.31  | -4.49  | -4.65  | -5.79  |
| 281 | 0.66 | 0.15  | -1    | -2.55  | -3.78  | -5.26  | -5.43  | -5.53  | -6.54  |
| 280 | 0.55 | -0.06 | -1.18 | -2.9   | -4.27  | -6.29  | -6.5   | -6.55  | -7.34  |
| 279 | 0.53 | -0.06 | -1.32 | -3.16  | -4.88  | -7.43  | -7.65  | -7.67  | -8.26  |
| 278 | 0.49 | -0.07 | -1.46 | -3.45  | -5.57  | -8.62  | -8.9   | -8.95  | -9.26  |
| 277 | 0.43 | -0.05 | -1.62 | -3.76  | -6.37  | -9.79  | -10.14 | -10.33 | -10.39 |
| 276 | 0.49 | -0.04 | -1.74 | -4.33  | -7.18  | -11.02 | -11.43 | -11.72 | -11.6  |
| 275 | 0.65 | -0.02 | -1.91 | -4.83  | -7.94  | -12.37 | -12.78 | -13.1  | -12.88 |
| 274 | 0.71 | -0.03 | -2.05 | -5.34  | -8.69  | -13.7  | -14.15 | -14.37 | -14.13 |
| 273 | 0.83 | 0.06  | -2.22 | -5.82  | -9.53  | -14.92 | -15.39 | -15.63 | -15.37 |
| 272 | 0.88 | 0.19  | -2.38 | -6.23  | -10.32 | -16    | -16.6  | -16.82 | -16.57 |
| 271 | 0.87 | 0.27  | -2.53 | -6.63  | -11.03 | -16.99 | -17.6  | -18.03 | -17.67 |
| 270 | 0.94 | 0.21  | -2.75 | -7.12  | -11.61 | -17.99 | -18.5  | -18.97 | -18.68 |
| 269 | 1.05 | 0.19  | -2.81 | -7.5   | -12.08 | -18.92 | -19.3  | -19.86 | -19.64 |
| 268 | 1.11 | 0.16  | -3.06 | -7.8   | -12.51 | -19.68 | -20.12 | -20.64 | -20.47 |
| 267 | 1.17 | 0.11  | -3.26 | -8.07  | -12.99 | -20.25 | -20.73 | -21.34 | -21.2  |
| 266 | 1.19 | 0.22  | -3.4  | -8.23  | -13.46 | -20.66 | -21.32 | -21.82 | -21.91 |

|     |       |       |       |       |        |        |        |        |        |
|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| 265 | 1.22  | 0.23  | -3.43 | -8.38 | -13.78 | -21.09 | -21.65 | -22.13 | -22.48 |
| 264 | 1.24  | 0.09  | -3.55 | -8.64 | -14.01 | -21.45 | -21.99 | -22.39 | -22.95 |
| 263 | 1.29  | 0.11  | -3.64 | -8.92 | -14.19 | -21.68 | -22.17 | -22.55 | -23.43 |
| 262 | 1.39  | 0.06  | -3.84 | -9.13 | -14.28 | -21.76 | -22.3  | -22.81 | -23.79 |
| 261 | 1.38  | 0.02  | -3.91 | -9.23 | -14.41 | -21.62 | -22.27 | -22.91 | -24.03 |
| 260 | 1.37  | 0     | -3.92 | -9.37 | -14.51 | -21.41 | -22.18 | -22.75 | -24.16 |
| 259 | 1.25  | -0.14 | -3.96 | -9.47 | -14.47 | -21.31 | -21.96 | -22.33 | -24.16 |
| 258 | 1.19  | -0.29 | -4.04 | -9.53 | -14.39 | -21.07 | -21.72 | -21.92 | -24.05 |
| 257 | 1.16  | -0.32 | -4.3  | -9.56 | -14.23 | -20.75 | -21.26 | -21.4  | -23.99 |
| 256 | 1.12  | -0.34 | -4.45 | -9.46 | -14.06 | -20.39 | -20.74 | -20.96 | -23.84 |
| 255 | 1.01  | -0.35 | -4.46 | -9.34 | -13.81 | -19.75 | -20.16 | -20.5  | -23.6  |
| 254 | 0.98  | -0.41 | -4.47 | -9.3  | -13.59 | -19.09 | -19.6  | -19.93 | -23.19 |
| 253 | 1     | -0.46 | -4.41 | -9.25 | -13.24 | -18.36 | -18.9  | -19.28 | -22.71 |
| 252 | 0.93  | -0.69 | -4.44 | -9.2  | -12.89 | -17.73 | -18.11 | -18.58 | -22.2  |
| 251 | 0.8   | -0.9  | -4.56 | -9.13 | -12.55 | -16.94 | -17.29 | -17.69 | -21.69 |
| 250 | 0.7   | -1.01 | -4.65 | -8.87 | -12.07 | -16.18 | -16.37 | -16.77 | -21.15 |
| 249 | 0.54  | -1.17 | -4.66 | -8.63 | -11.54 | -15.27 | -15.53 | -15.89 | -20.51 |
| 248 | 0.49  | -1.27 | -4.7  | -8.39 | -11.12 | -14.39 | -14.72 | -14.99 | -19.72 |
| 247 | 0.39  | -1.33 | -4.61 | -8.18 | -10.68 | -13.43 | -13.77 | -14.19 | -18.9  |
| 246 | 0.25  | -1.52 | -4.52 | -7.98 | -10.18 | -12.53 | -12.77 | -13.24 | -18.03 |
| 245 | -0.03 | -1.64 | -4.44 | -7.7  | -9.75  | -11.55 | -11.83 | -12.09 | -17.09 |
| 244 | -0.16 | -1.73 | -4.47 | -7.31 | -9.16  | -10.58 | -10.74 | -10.98 | -16.22 |
| 243 | -0.3  | -1.8  | -4.45 | -6.92 | -8.52  | -9.63  | -9.81  | -9.93  | -15.29 |
| 242 | -0.3  | -1.8  | -4.37 | -6.52 | -7.88  | -8.69  | -8.77  | -8.84  | -14.28 |
| 241 | -0.42 | -1.8  | -4.23 | -6.17 | -7.2   | -7.67  | -7.67  | -7.86  | -13.25 |
| 240 | -0.4  | -1.79 | -4.07 | -5.9  | -6.57  | -6.57  | -6.54  | -6.63  | -12.17 |
| 239 | -0.49 | -1.77 | -3.85 | -5.49 | -5.84  | -5.43  | -5.28  | -5.3   | -11.03 |
| 238 | -0.54 | -1.69 | -3.63 | -5.04 | -5.09  | -4.16  | -4.01  | -3.98  | -9.89  |
| 237 | -0.59 | -1.72 | -3.45 | -4.46 | -4.21  | -2.85  | -2.65  | -2.71  | -8.7   |
| 236 | -0.59 | -1.77 | -3.23 | -3.88 | -3.42  | -1.5   | -1.28  | -1.43  | -7.44  |
| 235 | -0.7  | -1.77 | -2.95 | -3.3  | -2.55  | -0.17  | 0.11   | -0.1   | -6.11  |
| 234 | -0.76 | -1.74 | -2.8  | -2.75 | -1.76  | 1.04   | 1.39   | 1.31   | -4.81  |
| 233 | -0.82 | -1.7  | -2.46 | -2.26 | -0.86  | 2.25   | 2.58   | 2.67   | -3.52  |
| 232 | -0.78 | -1.55 | -2.13 | -1.71 | -0.03  | 3.48   | 3.68   | 3.97   | -2.29  |
| 231 | -0.81 | -1.59 | -2.03 | -1.24 | 0.71   | 4.55   | 4.8    | 5.01   | -1.16  |
| 230 | -0.72 | -1.63 | -1.85 | -0.78 | 1.26   | 5.49   | 5.77   | 5.87   | -0.08  |
| 229 | -0.71 | -1.57 | -1.61 | -0.37 | 1.74   | 6.22   | 6.62   | 6.65   | 0.77   |
| 228 | -0.77 | -1.52 | -1.46 | -0.08 | 2.18   | 6.75   | 7.36   | 7.33   | 1.5    |
| 227 | -0.83 | -1.57 | -1.29 | 0.11  | 2.54   | 7.24   | 7.8    | 7.85   | 2.13   |
| 226 | -0.85 | -1.53 | -1.19 | 0.32  | 2.84   | 7.63   | 8.24   | 8.19   | 2.63   |
| 225 | -0.88 | -1.55 | -1.2  | 0.5   | 3.08   | 7.88   | 8.44   | 8.4    | 3      |
| 224 | -0.75 | -1.53 | -1.13 | 0.67  | 3.2    | 8.03   | 8.5    | 8.43   | 3.29   |
| 223 | -0.79 | -1.44 | -0.98 | 0.73  | 3.37   | 8      | 8.46   | 8.48   | 3.36   |
| 222 | -0.88 | -1.32 | -0.86 | 0.71  | 3.38   | 7.81   | 8.36   | 8.45   | 3.4    |
| 221 | -0.96 | -1.31 | -0.83 | 0.68  | 3.3    | 7.59   | 8.09   | 8.36   | 3.48   |
| 220 | -0.85 | -1.09 | -0.76 | 0.66  | 3.18   | 7.4    | 7.97   | 8.14   | 3.41   |
| 219 | -0.78 | -1.04 | -0.78 | 0.68  | 2.99   | 7.17   | 7.62   | 7.81   | 3.25   |
| 218 | -0.72 | -1.02 | -0.75 | 0.68  | 2.76   | 6.89   | 7.18   | 7.3    | 3.03   |
| 217 | -0.8  | -1.01 | -0.8  | 0.54  | 2.56   | 6.45   | 6.77   | 6.76   | 2.63   |
| 216 | -0.89 | -0.99 | -0.82 | 0.37  | 2.28   | 5.86   | 6.16   | 6.11   | 2.21   |
| 215 | -0.9  | -1.09 | -0.87 | 0.06  | 1.88   | 5.15   | 5.38   | 5.44   | 1.76   |
| 214 | -0.78 | -1.03 | -1.05 | -0.19 | 1.48   | 4.48   | 4.67   | 4.73   | 1.24   |
| 213 | -0.77 | -1.11 | -1.3  | -0.43 | 0.97   | 3.76   | 3.85   | 3.94   | 0.63   |
| 212 | -0.83 | -1.11 | -1.39 | -0.59 | 0.6    | 3      | 2.94   | 3.12   | -0.01  |
| 211 | -0.82 | -1.17 | -1.58 | -0.93 | 0.08   | 2.2    | 2.18   | 2.31   | -0.84  |
| 210 | -0.88 | -1.25 | -1.67 | -1.33 | -0.41  | 1.31   | 1.29   | 1.38   | -1.63  |
| 209 | -0.9  | -1.4  | -1.72 | -1.71 | -0.99  | 0.38   | 0.42   | 0.56   | -2.36  |
| 208 | -0.97 | -1.51 | -2.04 | -2.03 | -1.6   | -0.38  | -0.33  | -0.21  | -3.15  |
| 207 | -1.01 | -1.64 | -2.28 | -2.4  | -2.32  | -1.12  | -1.11  | -1.07  | -3.95  |
| 206 | -1.16 | -1.76 | -2.48 | -2.74 | -2.82  | -1.86  | -1.92  | -1.86  | -4.78  |
| 205 | -1.18 | -1.88 | -2.68 | -3.11 | -3.28  | -2.56  | -2.55  | -2.68  | -5.54  |
| 204 | -1.25 | -2.01 | -2.94 | -3.53 | -3.67  | -3.26  | -3.28  | -3.59  | -6.24  |
| 203 | -1.44 | -2.2  | -3.11 | -3.91 | -4.14  | -3.99  | -4.03  | -4.24  | -6.96  |
| 202 | -1.6  | -2.31 | -3.4  | -4.23 | -4.59  | -4.56  | -4.7   | -4.82  | -7.68  |
| 201 | -1.66 | -2.4  | -3.56 | -4.55 | -5.11  | -5.16  | -5.38  | -5.37  | -8.31  |
| 200 | -1.73 | -2.56 | -3.65 | -4.86 | -5.51  | -5.74  | -5.9   | -5.85  | -8.96  |
| 199 | -1.74 | -2.79 | -3.84 | -5.1  | -5.86  | -6.35  | -6.31  | -6.5   | -9.55  |
| 198 | -1.87 | -2.89 | -4.13 | -5.44 | -6.18  | -6.79  | -6.68  | -7.01  | -10.03 |
| 197 | -1.92 | -2.94 | -4.3  | -5.7  | -6.48  | -7.17  | -7.02  | -7.31  | -10.5  |
| 196 | -1.93 | -2.93 | -4.51 | -5.98 | -6.58  | -7.31  | -7.38  | -7.49  | -10.8  |
| 195 | -1.96 | -2.9  | -4.7  | -6.12 | -6.73  | -7.46  | -7.66  | -7.63  | -11.02 |
| 194 | -1.97 | -2.93 | -4.73 | -6.18 | -6.82  | -7.44  | -7.65  | -7.66  | -11.12 |
| 193 | -1.91 | -3.1  | -4.7  | -6.13 | -6.83  | -7.41  | -7.58  | -7.71  | -11.15 |
| 192 | -2.03 | -3.1  | -4.75 | -6.09 | -6.73  | -7.31  | -7.38  | -7.59  | -11.07 |
| 191 | -2    | -3.17 | -4.77 | -6.08 | -6.74  | -7.14  | -7.2   | -7.4   | -11    |
| 190 | -2.01 | -3.12 | -4.72 | -6.05 | -6.52  | -6.86  | -6.96  | -7.13  | -10.83 |
| 189 | -2.02 | -3.01 | -4.75 | -5.91 | -6.34  | -6.54  | -6.63  | -6.87  | -10.64 |
| 188 | -1.94 | -2.86 | -4.71 | -5.65 | -6.1   | -6.19  | -6.2   | -6.44  | -10.25 |
| 187 | -1.83 | -2.65 | -4.45 | -5.36 | -5.68  | -5.6   | -5.67  | -5.99  | -9.73  |
| 186 | -1.7  | -2.56 | -4.31 | -5.14 | -5.37  | -5.24  | -5.22  | -5.47  | -9.21  |
| 185 | -1.64 | -2.54 | -4.06 | -4.98 | -5.13  | -4.58  | -4.9   | -4.8   | -8.61  |
| 184 | -1.56 | -2.63 | -3.86 | -4.64 | -4.48  | -3.91  | -4.24  | -4.13  | -7.85  |
| 183 | -1.86 | -2.7  | -3.75 | -4.27 | -3.98  | -3.06  | -4.01  | -3.4   | -7.46  |
| 182 | -1.17 | -2.7  | -3.61 | -3.33 | -2.48  | -2.75  | -2.43  | -2.98  | -6.68  |

Figure 2(b): Absorption spectra.

| WL/nm | 10 mins | 28 mins | 47 min | 66 min | 85 min | 136 min | 155 min | 174 min | 517 mins |
|-------|---------|---------|--------|--------|--------|---------|---------|---------|----------|
| 540   | 0.048   | 0.052   | 0.054  | 0.055  | 0.055  | 0.056   | 0.056   | 0.057   | 0.052    |
| 539   | 0.048   | 0.052   | 0.054  | 0.055  | 0.055  | 0.056   | 0.056   | 0.057   | 0.053    |
| 538   | 0.048   | 0.053   | 0.054  | 0.055  | 0.055  | 0.056   | 0.056   | 0.057   | 0.052    |
| 537   | 0.048   | 0.052   | 0.054  | 0.055  | 0.056  | 0.056   | 0.056   | 0.057   | 0.053    |
| 536   | 0.048   | 0.052   | 0.054  | 0.055  | 0.056  | 0.056   | 0.057   | 0.058   | 0.053    |
| 535   | 0.048   | 0.052   | 0.054  | 0.055  | 0.056  | 0.056   | 0.057   | 0.058   | 0.053    |
| 534   | 0.049   | 0.053   | 0.055  | 0.055  | 0.056  | 0.057   | 0.058   | 0.058   | 0.053    |
| 533   | 0.049   | 0.053   | 0.055  | 0.056  | 0.057  | 0.057   | 0.058   | 0.059   | 0.054    |

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 532 | 0.049 | 0.053 | 0.055 | 0.056 | 0.057 | 0.058 | 0.058 | 0.059 | 0.054 |
| 531 | 0.05  | 0.053 | 0.055 | 0.056 | 0.057 | 0.058 | 0.059 | 0.059 | 0.055 |
| 530 | 0.05  | 0.054 | 0.056 | 0.057 | 0.058 | 0.059 | 0.06  | 0.06  | 0.055 |
| 529 | 0.05  | 0.055 | 0.056 | 0.057 | 0.059 | 0.059 | 0.06  | 0.061 | 0.056 |
| 528 | 0.051 | 0.056 | 0.057 | 0.058 | 0.059 | 0.06  | 0.061 | 0.061 | 0.057 |
| 527 | 0.052 | 0.056 | 0.058 | 0.059 | 0.06  | 0.061 | 0.061 | 0.062 | 0.057 |
| 526 | 0.052 | 0.057 | 0.058 | 0.06  | 0.061 | 0.062 | 0.063 | 0.063 | 0.058 |
| 525 | 0.053 | 0.057 | 0.059 | 0.061 | 0.061 | 0.063 | 0.063 | 0.064 | 0.059 |
| 524 | 0.054 | 0.058 | 0.06  | 0.061 | 0.063 | 0.064 | 0.064 | 0.065 | 0.06  |
| 523 | 0.055 | 0.059 | 0.061 | 0.062 | 0.063 | 0.065 | 0.065 | 0.066 | 0.061 |
| 522 | 0.056 | 0.061 | 0.062 | 0.063 | 0.065 | 0.066 | 0.067 | 0.067 | 0.062 |
| 521 | 0.057 | 0.062 | 0.064 | 0.065 | 0.066 | 0.068 | 0.068 | 0.068 | 0.063 |
| 520 | 0.058 | 0.062 | 0.065 | 0.066 | 0.067 | 0.069 | 0.069 | 0.07  | 0.064 |
| 519 | 0.06  | 0.064 | 0.067 | 0.068 | 0.069 | 0.07  | 0.071 | 0.071 | 0.066 |
| 518 | 0.061 | 0.066 | 0.068 | 0.069 | 0.071 | 0.072 | 0.072 | 0.073 | 0.068 |
| 517 | 0.063 | 0.068 | 0.07  | 0.071 | 0.072 | 0.074 | 0.074 | 0.074 | 0.069 |
| 516 | 0.065 | 0.069 | 0.072 | 0.073 | 0.074 | 0.075 | 0.076 | 0.076 | 0.071 |
| 515 | 0.067 | 0.072 | 0.074 | 0.075 | 0.076 | 0.077 | 0.078 | 0.078 | 0.073 |
| 514 | 0.069 | 0.074 | 0.076 | 0.077 | 0.078 | 0.08  | 0.08  | 0.08  | 0.075 |
| 513 | 0.071 | 0.076 | 0.078 | 0.08  | 0.081 | 0.082 | 0.082 | 0.083 | 0.077 |
| 512 | 0.074 | 0.079 | 0.081 | 0.082 | 0.083 | 0.085 | 0.085 | 0.085 | 0.08  |
| 511 | 0.076 | 0.081 | 0.083 | 0.085 | 0.086 | 0.087 | 0.087 | 0.088 | 0.082 |
| 510 | 0.079 | 0.084 | 0.086 | 0.088 | 0.089 | 0.089 | 0.09  | 0.09  | 0.085 |
| 509 | 0.082 | 0.087 | 0.09  | 0.091 | 0.092 | 0.093 | 0.093 | 0.094 | 0.088 |
| 508 | 0.084 | 0.09  | 0.093 | 0.093 | 0.095 | 0.096 | 0.096 | 0.097 | 0.091 |
| 507 | 0.088 | 0.093 | 0.096 | 0.097 | 0.098 | 0.1   | 0.099 | 0.1   | 0.095 |
| 506 | 0.092 | 0.097 | 0.1   | 0.101 | 0.102 | 0.103 | 0.104 | 0.104 | 0.098 |
| 505 | 0.096 | 0.101 | 0.104 | 0.105 | 0.106 | 0.107 | 0.107 | 0.108 | 0.102 |
| 504 | 0.099 | 0.105 | 0.108 | 0.109 | 0.11  | 0.111 | 0.111 | 0.112 | 0.106 |
| 503 | 0.104 | 0.109 | 0.112 | 0.114 | 0.114 | 0.115 | 0.115 | 0.116 | 0.11  |
| 502 | 0.108 | 0.114 | 0.117 | 0.118 | 0.119 | 0.12  | 0.12  | 0.12  | 0.115 |
| 501 | 0.113 | 0.118 | 0.122 | 0.123 | 0.124 | 0.124 | 0.124 | 0.125 | 0.119 |
| 500 | 0.117 | 0.123 | 0.127 | 0.128 | 0.129 | 0.129 | 0.129 | 0.129 | 0.124 |
| 499 | 0.122 | 0.129 | 0.132 | 0.133 | 0.134 | 0.134 | 0.134 | 0.134 | 0.129 |
| 498 | 0.128 | 0.134 | 0.137 | 0.138 | 0.139 | 0.139 | 0.139 | 0.139 | 0.134 |
| 497 | 0.133 | 0.139 | 0.143 | 0.144 | 0.144 | 0.144 | 0.144 | 0.144 | 0.14  |
| 496 | 0.139 | 0.145 | 0.148 | 0.149 | 0.15  | 0.149 | 0.149 | 0.149 | 0.145 |
| 495 | 0.144 | 0.15  | 0.154 | 0.155 | 0.156 | 0.154 | 0.154 | 0.154 | 0.15  |
| 494 | 0.15  | 0.156 | 0.16  | 0.161 | 0.161 | 0.159 | 0.159 | 0.159 | 0.155 |
| 493 | 0.156 | 0.162 | 0.165 | 0.166 | 0.166 | 0.164 | 0.164 | 0.164 | 0.16  |
| 492 | 0.162 | 0.168 | 0.172 | 0.173 | 0.172 | 0.169 | 0.168 | 0.169 | 0.166 |
| 491 | 0.168 | 0.175 | 0.178 | 0.178 | 0.177 | 0.173 | 0.173 | 0.174 | 0.17  |
| 490 | 0.175 | 0.181 | 0.184 | 0.184 | 0.182 | 0.178 | 0.177 | 0.178 | 0.175 |
| 489 | 0.181 | 0.187 | 0.19  | 0.189 | 0.188 | 0.182 | 0.182 | 0.182 | 0.179 |
| 488 | 0.187 | 0.193 | 0.195 | 0.195 | 0.192 | 0.186 | 0.185 | 0.186 | 0.184 |
| 487 | 0.194 | 0.199 | 0.201 | 0.2   | 0.197 | 0.189 | 0.189 | 0.189 | 0.187 |
| 486 | 0.2   | 0.205 | 0.207 | 0.205 | 0.202 | 0.193 | 0.192 | 0.192 | 0.19  |
| 485 | 0.206 | 0.211 | 0.213 | 0.21  | 0.206 | 0.195 | 0.194 | 0.195 | 0.193 |
| 484 | 0.213 | 0.217 | 0.218 | 0.215 | 0.21  | 0.198 | 0.197 | 0.197 | 0.196 |
| 483 | 0.219 | 0.222 | 0.223 | 0.22  | 0.213 | 0.2   | 0.199 | 0.199 | 0.198 |
| 482 | 0.225 | 0.228 | 0.228 | 0.223 | 0.216 | 0.201 | 0.2   | 0.2   | 0.199 |
| 481 | 0.23  | 0.233 | 0.233 | 0.227 | 0.219 | 0.203 | 0.202 | 0.201 | 0.2   |
| 480 | 0.236 | 0.238 | 0.237 | 0.231 | 0.222 | 0.204 | 0.202 | 0.202 | 0.201 |
| 479 | 0.241 | 0.243 | 0.241 | 0.234 | 0.224 | 0.204 | 0.203 | 0.202 | 0.201 |
| 478 | 0.246 | 0.247 | 0.244 | 0.236 | 0.225 | 0.204 | 0.202 | 0.202 | 0.201 |
| 477 | 0.251 | 0.251 | 0.248 | 0.239 | 0.227 | 0.204 | 0.203 | 0.202 | 0.2   |
| 476 | 0.255 | 0.255 | 0.251 | 0.241 | 0.228 | 0.204 | 0.202 | 0.201 | 0.2   |
| 475 | 0.259 | 0.258 | 0.254 | 0.243 | 0.229 | 0.203 | 0.201 | 0.201 | 0.199 |
| 474 | 0.263 | 0.261 | 0.255 | 0.244 | 0.23  | 0.203 | 0.2   | 0.2   | 0.198 |
| 473 | 0.266 | 0.264 | 0.257 | 0.245 | 0.23  | 0.202 | 0.199 | 0.199 | 0.197 |
| 472 | 0.269 | 0.266 | 0.259 | 0.246 | 0.23  | 0.201 | 0.198 | 0.198 | 0.196 |
| 471 | 0.271 | 0.267 | 0.26  | 0.247 | 0.23  | 0.2   | 0.197 | 0.197 | 0.195 |
| 470 | 0.272 | 0.268 | 0.261 | 0.247 | 0.23  | 0.199 | 0.196 | 0.196 | 0.193 |
| 469 | 0.274 | 0.269 | 0.261 | 0.247 | 0.23  | 0.198 | 0.196 | 0.195 | 0.193 |
| 468 | 0.275 | 0.27  | 0.261 | 0.247 | 0.23  | 0.198 | 0.195 | 0.195 | 0.192 |
| 467 | 0.275 | 0.269 | 0.261 | 0.246 | 0.229 | 0.197 | 0.194 | 0.193 | 0.191 |
| 466 | 0.274 | 0.269 | 0.26  | 0.245 | 0.228 | 0.196 | 0.193 | 0.192 | 0.19  |
| 465 | 0.274 | 0.268 | 0.259 | 0.245 | 0.227 | 0.195 | 0.193 | 0.192 | 0.19  |
| 464 | 0.273 | 0.267 | 0.258 | 0.243 | 0.226 | 0.195 | 0.192 | 0.192 | 0.189 |
| 463 | 0.272 | 0.266 | 0.257 | 0.242 | 0.225 | 0.194 | 0.191 | 0.191 | 0.189 |
| 462 | 0.27  | 0.264 | 0.255 | 0.241 | 0.224 | 0.193 | 0.191 | 0.191 | 0.188 |
| 461 | 0.268 | 0.262 | 0.253 | 0.239 | 0.223 | 0.192 | 0.191 | 0.19  | 0.188 |
| 460 | 0.266 | 0.259 | 0.251 | 0.237 | 0.221 | 0.192 | 0.19  | 0.189 | 0.187 |
| 459 | 0.263 | 0.257 | 0.248 | 0.235 | 0.219 | 0.191 | 0.189 | 0.188 | 0.187 |
| 458 | 0.261 | 0.254 | 0.246 | 0.233 | 0.217 | 0.19  | 0.188 | 0.188 | 0.186 |
| 457 | 0.258 | 0.252 | 0.244 | 0.231 | 0.216 | 0.189 | 0.188 | 0.187 | 0.185 |
| 456 | 0.255 | 0.249 | 0.241 | 0.228 | 0.214 | 0.189 | 0.187 | 0.187 | 0.185 |
| 455 | 0.252 | 0.246 | 0.239 | 0.226 | 0.212 | 0.188 | 0.186 | 0.186 | 0.184 |
| 454 | 0.249 | 0.243 | 0.236 | 0.224 | 0.21  | 0.187 | 0.185 | 0.185 | 0.183 |
| 453 | 0.246 | 0.24  | 0.234 | 0.222 | 0.209 | 0.186 | 0.185 | 0.184 | 0.183 |
| 452 | 0.243 | 0.237 | 0.231 | 0.22  | 0.207 | 0.185 | 0.184 | 0.184 | 0.182 |
| 451 | 0.241 | 0.235 | 0.228 | 0.218 | 0.205 | 0.184 | 0.183 | 0.183 | 0.182 |
| 450 | 0.237 | 0.232 | 0.226 | 0.215 | 0.203 | 0.183 | 0.182 | 0.182 | 0.181 |
| 449 | 0.235 | 0.229 | 0.223 | 0.213 | 0.202 | 0.183 | 0.182 | 0.182 | 0.18  |
| 448 | 0.232 | 0.226 | 0.221 | 0.211 | 0.2   | 0.182 | 0.181 | 0.181 | 0.18  |
| 447 | 0.229 | 0.224 | 0.218 | 0.209 | 0.198 | 0.181 | 0.18  | 0.181 | 0.179 |
| 446 | 0.225 | 0.221 | 0.215 | 0.207 | 0.197 | 0.18  | 0.18  | 0.18  | 0.178 |
| 445 | 0.222 | 0.217 | 0.213 | 0.204 | 0.195 | 0.179 | 0.179 | 0.179 | 0.178 |
| 444 | 0.218 | 0.214 | 0.21  | 0.202 | 0.193 | 0.178 | 0.178 | 0.178 | 0.177 |
| 443 | 0.215 | 0.211 | 0.207 | 0.199 | 0.191 | 0.177 | 0.178 | 0.178 | 0.177 |
| 442 | 0.211 | 0.207 | 0.204 | 0.197 | 0.189 | 0.177 | 0.177 | 0.177 | 0.176 |
| 441 | 0.207 | 0.204 | 0.2   | 0.194 | 0.187 | 0.176 | 0.176 | 0.176 | 0.175 |
| 440 | 0.203 | 0.199 | 0.197 | 0.191 | 0.185 | 0.174 | 0.175 | 0.175 | 0.174 |
| 439 | 0.198 | 0.196 | 0.193 | 0.188 | 0.182 | 0.174 | 0.174 | 0.175 | 0.173 |
| 438 | 0.194 | 0.191 | 0.189 | 0.184 | 0.179 | 0.172 | 0.172 | 0.173 | 0.172 |
| 437 | 0.189 | 0.186 | 0.184 | 0.181 | 0.177 | 0.17  | 0.171 | 0.172 | 0.171 |
| 436 | 0.183 | 0.181 | 0.18  | 0.177 | 0.174 | 0.169 | 0.17  | 0.17  | 0.169 |
| 435 | 0.178 | 0.176 | 0.176 | 0.173 | 0.171 | 0.167 | 0.168 | 0.168 | 0.167 |
| 434 | 0.172 | 0.171 | 0.171 | 0.169 | 0.167 | 0.164 | 0.165 | 0.166 | 0.166 |

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 433 | 0.166 | 0.165 | 0.166 | 0.165 | 0.163 | 0.161 | 0.163 | 0.164 | 0.163 |
| 432 | 0.161 | 0.16  | 0.161 | 0.16  | 0.16  | 0.159 | 0.16  | 0.161 | 0.161 |
| 431 | 0.155 | 0.155 | 0.156 | 0.156 | 0.156 | 0.156 | 0.158 | 0.159 | 0.158 |
| 430 | 0.149 | 0.149 | 0.151 | 0.151 | 0.151 | 0.153 | 0.154 | 0.156 | 0.155 |
| 429 | 0.144 | 0.144 | 0.146 | 0.147 | 0.147 | 0.15  | 0.152 | 0.153 | 0.152 |
| 428 | 0.138 | 0.139 | 0.141 | 0.142 | 0.143 | 0.146 | 0.148 | 0.149 | 0.149 |
| 427 | 0.133 | 0.134 | 0.136 | 0.138 | 0.139 | 0.143 | 0.145 | 0.146 | 0.145 |
| 426 | 0.128 | 0.129 | 0.131 | 0.133 | 0.135 | 0.14  | 0.141 | 0.143 | 0.142 |
| 425 | 0.122 | 0.124 | 0.126 | 0.129 | 0.131 | 0.136 | 0.138 | 0.139 | 0.138 |
| 424 | 0.118 | 0.119 | 0.122 | 0.125 | 0.128 | 0.133 | 0.135 | 0.136 | 0.134 |
| 423 | 0.113 | 0.115 | 0.118 | 0.12  | 0.124 | 0.129 | 0.13  | 0.132 | 0.131 |
| 422 | 0.109 | 0.111 | 0.114 | 0.117 | 0.119 | 0.126 | 0.128 | 0.128 | 0.128 |
| 421 | 0.105 | 0.107 | 0.11  | 0.113 | 0.116 | 0.122 | 0.124 | 0.125 | 0.124 |
| 420 | 0.101 | 0.104 | 0.107 | 0.11  | 0.113 | 0.119 | 0.121 | 0.122 | 0.121 |
| 419 | 0.097 | 0.1   | 0.103 | 0.106 | 0.109 | 0.116 | 0.117 | 0.119 | 0.117 |
| 418 | 0.095 | 0.097 | 0.1   | 0.103 | 0.106 | 0.113 | 0.115 | 0.116 | 0.114 |
| 417 | 0.092 | 0.094 | 0.097 | 0.1   | 0.103 | 0.11  | 0.112 | 0.112 | 0.111 |
| 416 | 0.088 | 0.091 | 0.094 | 0.097 | 0.1   | 0.106 | 0.108 | 0.11  | 0.108 |
| 415 | 0.086 | 0.089 | 0.092 | 0.095 | 0.098 | 0.104 | 0.106 | 0.107 | 0.105 |
| 414 | 0.084 | 0.086 | 0.089 | 0.092 | 0.096 | 0.101 | 0.103 | 0.104 | 0.102 |
| 413 | 0.081 | 0.084 | 0.087 | 0.09  | 0.093 | 0.099 | 0.101 | 0.102 | 0.1   |
| 412 | 0.08  | 0.082 | 0.085 | 0.088 | 0.091 | 0.096 | 0.098 | 0.099 | 0.097 |
| 411 | 0.078 | 0.08  | 0.083 | 0.086 | 0.089 | 0.094 | 0.095 | 0.097 | 0.095 |
| 410 | 0.076 | 0.078 | 0.082 | 0.085 | 0.087 | 0.092 | 0.093 | 0.095 | 0.093 |
| 409 | 0.075 | 0.077 | 0.08  | 0.083 | 0.086 | 0.09  | 0.092 | 0.093 | 0.091 |
| 408 | 0.074 | 0.077 | 0.079 | 0.081 | 0.084 | 0.089 | 0.09  | 0.091 | 0.089 |
| 407 | 0.073 | 0.076 | 0.078 | 0.08  | 0.083 | 0.087 | 0.089 | 0.09  | 0.088 |
| 406 | 0.072 | 0.075 | 0.078 | 0.08  | 0.082 | 0.087 | 0.088 | 0.089 | 0.087 |
| 405 | 0.072 | 0.074 | 0.077 | 0.079 | 0.082 | 0.086 | 0.087 | 0.089 | 0.086 |
| 404 | 0.072 | 0.074 | 0.077 | 0.079 | 0.081 | 0.085 | 0.087 | 0.088 | 0.086 |
| 403 | 0.072 | 0.074 | 0.077 | 0.079 | 0.081 | 0.085 | 0.087 | 0.088 | 0.085 |
| 402 | 0.072 | 0.075 | 0.077 | 0.08  | 0.082 | 0.085 | 0.087 | 0.088 | 0.086 |
| 401 | 0.073 | 0.076 | 0.078 | 0.08  | 0.082 | 0.086 | 0.088 | 0.089 | 0.086 |
| 400 | 0.074 | 0.077 | 0.079 | 0.081 | 0.083 | 0.087 | 0.089 | 0.09  | 0.087 |
| 399 | 0.075 | 0.078 | 0.08  | 0.083 | 0.084 | 0.088 | 0.089 | 0.09  | 0.088 |
| 398 | 0.077 | 0.079 | 0.082 | 0.084 | 0.086 | 0.089 | 0.091 | 0.092 | 0.09  |
| 397 | 0.078 | 0.081 | 0.083 | 0.085 | 0.088 | 0.091 | 0.092 | 0.093 | 0.091 |
| 396 | 0.08  | 0.083 | 0.085 | 0.087 | 0.089 | 0.092 | 0.093 | 0.095 | 0.093 |
| 395 | 0.082 | 0.085 | 0.087 | 0.089 | 0.091 | 0.094 | 0.096 | 0.097 | 0.094 |
| 394 | 0.084 | 0.087 | 0.089 | 0.091 | 0.093 | 0.096 | 0.097 | 0.098 | 0.096 |
| 393 | 0.086 | 0.089 | 0.091 | 0.093 | 0.095 | 0.097 | 0.099 | 0.1   | 0.097 |
| 392 | 0.089 | 0.091 | 0.093 | 0.095 | 0.096 | 0.099 | 0.1   | 0.101 | 0.099 |
| 391 | 0.091 | 0.093 | 0.095 | 0.097 | 0.098 | 0.101 | 0.102 | 0.103 | 0.1   |
| 390 | 0.093 | 0.095 | 0.097 | 0.099 | 0.1   | 0.102 | 0.103 | 0.104 | 0.102 |
| 389 | 0.095 | 0.097 | 0.099 | 0.1   | 0.102 | 0.103 | 0.104 | 0.105 | 0.103 |
| 388 | 0.097 | 0.099 | 0.101 | 0.102 | 0.103 | 0.104 | 0.105 | 0.106 | 0.104 |
| 387 | 0.099 | 0.101 | 0.103 | 0.104 | 0.104 | 0.105 | 0.106 | 0.107 | 0.105 |
| 386 | 0.1   | 0.102 | 0.104 | 0.104 | 0.105 | 0.105 | 0.106 | 0.107 | 0.105 |
| 385 | 0.102 | 0.104 | 0.106 | 0.106 | 0.106 | 0.106 | 0.107 | 0.108 | 0.106 |
| 384 | 0.103 | 0.106 | 0.107 | 0.107 | 0.107 | 0.107 | 0.108 | 0.109 | 0.107 |
| 383 | 0.105 | 0.107 | 0.108 | 0.108 | 0.108 | 0.108 | 0.108 | 0.11  | 0.107 |
| 382 | 0.106 | 0.108 | 0.109 | 0.109 | 0.108 | 0.108 | 0.109 | 0.11  | 0.108 |
| 381 | 0.108 | 0.109 | 0.11  | 0.11  | 0.109 | 0.109 | 0.109 | 0.111 | 0.108 |
| 380 | 0.108 | 0.11  | 0.111 | 0.111 | 0.11  | 0.109 | 0.11  | 0.111 | 0.109 |
| 379 | 0.11  | 0.112 | 0.112 | 0.112 | 0.111 | 0.11  | 0.111 | 0.112 | 0.109 |
| 378 | 0.111 | 0.113 | 0.114 | 0.113 | 0.112 | 0.111 | 0.111 | 0.113 | 0.11  |
| 377 | 0.112 | 0.114 | 0.115 | 0.114 | 0.113 | 0.111 | 0.112 | 0.113 | 0.111 |
| 376 | 0.113 | 0.115 | 0.115 | 0.115 | 0.113 | 0.112 | 0.112 | 0.114 | 0.112 |
| 375 | 0.114 | 0.116 | 0.117 | 0.116 | 0.114 | 0.113 | 0.113 | 0.114 | 0.112 |
| 374 | 0.116 | 0.117 | 0.118 | 0.117 | 0.115 | 0.113 | 0.114 | 0.115 | 0.113 |
| 373 | 0.117 | 0.118 | 0.119 | 0.117 | 0.116 | 0.114 | 0.114 | 0.116 | 0.114 |
| 372 | 0.118 | 0.12  | 0.12  | 0.119 | 0.117 | 0.115 | 0.115 | 0.117 | 0.114 |
| 371 | 0.119 | 0.121 | 0.121 | 0.119 | 0.118 | 0.115 | 0.116 | 0.117 | 0.115 |
| 370 | 0.121 | 0.122 | 0.122 | 0.121 | 0.118 | 0.116 | 0.116 | 0.117 | 0.115 |
| 369 | 0.122 | 0.123 | 0.123 | 0.122 | 0.119 | 0.116 | 0.117 | 0.118 | 0.116 |
| 368 | 0.123 | 0.124 | 0.124 | 0.122 | 0.12  | 0.116 | 0.117 | 0.118 | 0.116 |
| 367 | 0.124 | 0.125 | 0.125 | 0.123 | 0.121 | 0.117 | 0.118 | 0.119 | 0.117 |
| 366 | 0.125 | 0.126 | 0.126 | 0.124 | 0.121 | 0.117 | 0.118 | 0.119 | 0.117 |
| 365 | 0.126 | 0.127 | 0.127 | 0.125 | 0.122 | 0.118 | 0.119 | 0.12  | 0.118 |
| 364 | 0.127 | 0.128 | 0.128 | 0.126 | 0.123 | 0.119 | 0.119 | 0.121 | 0.119 |
| 363 | 0.128 | 0.129 | 0.129 | 0.127 | 0.124 | 0.12  | 0.12  | 0.122 | 0.12  |
| 362 | 0.129 | 0.13  | 0.13  | 0.128 | 0.125 | 0.12  | 0.121 | 0.122 | 0.12  |
| 361 | 0.13  | 0.131 | 0.131 | 0.129 | 0.126 | 0.121 | 0.122 | 0.124 | 0.122 |
| 360 | 0.131 | 0.132 | 0.132 | 0.13  | 0.127 | 0.122 | 0.123 | 0.124 | 0.123 |
| 359 | 0.133 | 0.133 | 0.133 | 0.131 | 0.128 | 0.124 | 0.124 | 0.125 | 0.123 |
| 358 | 0.134 | 0.135 | 0.135 | 0.132 | 0.129 | 0.125 | 0.125 | 0.127 | 0.125 |
| 357 | 0.135 | 0.136 | 0.135 | 0.133 | 0.131 | 0.126 | 0.127 | 0.128 | 0.126 |
| 356 | 0.137 | 0.138 | 0.137 | 0.135 | 0.132 | 0.128 | 0.128 | 0.13  | 0.128 |
| 355 | 0.138 | 0.139 | 0.139 | 0.136 | 0.134 | 0.129 | 0.13  | 0.131 | 0.13  |
| 354 | 0.14  | 0.141 | 0.14  | 0.138 | 0.135 | 0.131 | 0.131 | 0.133 | 0.131 |
| 353 | 0.141 | 0.142 | 0.142 | 0.139 | 0.136 | 0.133 | 0.133 | 0.134 | 0.133 |
| 352 | 0.143 | 0.144 | 0.143 | 0.141 | 0.138 | 0.133 | 0.134 | 0.135 | 0.134 |
| 351 | 0.144 | 0.145 | 0.144 | 0.142 | 0.139 | 0.135 | 0.135 | 0.136 | 0.135 |
| 350 | 0.146 | 0.146 | 0.145 | 0.143 | 0.14  | 0.136 | 0.136 | 0.138 | 0.136 |
| 349 | 0.147 | 0.147 | 0.146 | 0.144 | 0.141 | 0.137 | 0.137 | 0.139 | 0.137 |
| 348 | 0.147 | 0.148 | 0.147 | 0.145 | 0.142 | 0.138 | 0.138 | 0.139 | 0.138 |
| 347 | 0.148 | 0.148 | 0.148 | 0.146 | 0.142 | 0.138 | 0.138 | 0.14  | 0.138 |
| 346 | 0.148 | 0.149 | 0.148 | 0.146 | 0.143 | 0.138 | 0.139 | 0.14  | 0.139 |
| 345 | 0.149 | 0.149 | 0.148 | 0.146 | 0.142 | 0.138 | 0.138 | 0.14  | 0.139 |
| 344 | 0.149 | 0.149 | 0.149 | 0.146 | 0.143 | 0.138 | 0.138 | 0.14  | 0.138 |
| 343 | 0.149 | 0.149 | 0.148 | 0.146 | 0.142 | 0.138 | 0.138 | 0.14  | 0.138 |
| 342 | 0.149 | 0.149 | 0.148 | 0.145 | 0.142 | 0.137 | 0.138 | 0.139 | 0.138 |
| 341 | 0.148 | 0.149 | 0.148 | 0.145 | 0.141 | 0.137 | 0.137 | 0.139 | 0.137 |
| 340 | 0.148 | 0.148 | 0.148 | 0.145 | 0.141 | 0.136 | 0.137 | 0.139 | 0.137 |
| 339 | 0.148 | 0.148 | 0.147 | 0.145 | 0.141 | 0.136 | 0.137 | 0.138 | 0.137 |
| 338 | 0.147 | 0.147 | 0.146 | 0.144 | 0.14  | 0.135 | 0.136 | 0.137 | 0.136 |
| 337 | 0.146 | 0.147 | 0.146 | 0.143 | 0.14  | 0.135 | 0.135 | 0.137 | 0.136 |
| 336 | 0.146 | 0.146 | 0.145 | 0.143 | 0.139 | 0.135 | 0.135 | 0.136 | 0.135 |
| 335 | 0.146 | 0.146 | 0.145 | 0.143 | 0.139 | 0.134 | 0.135 | 0.136 | 0.135 |

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 334 | 0.146 | 0.146 | 0.145 | 0.142 | 0.138 | 0.134 | 0.134 | 0.135 | 0.134 |
| 333 | 0.145 | 0.145 | 0.144 | 0.142 | 0.138 | 0.133 | 0.134 | 0.135 | 0.134 |
| 332 | 0.144 | 0.145 | 0.143 | 0.141 | 0.137 | 0.133 | 0.133 | 0.134 | 0.134 |
| 331 | 0.145 | 0.145 | 0.144 | 0.141 | 0.137 | 0.132 | 0.133 | 0.134 | 0.133 |
| 330 | 0.144 | 0.144 | 0.143 | 0.14  | 0.137 | 0.132 | 0.132 | 0.133 | 0.132 |
| 329 | 0.144 | 0.144 | 0.143 | 0.14  | 0.136 | 0.131 | 0.132 | 0.133 | 0.132 |
| 328 | 0.144 | 0.144 | 0.143 | 0.14  | 0.136 | 0.131 | 0.131 | 0.133 | 0.131 |
| 327 | 0.144 | 0.143 | 0.142 | 0.139 | 0.135 | 0.131 | 0.131 | 0.132 | 0.131 |
| 326 | 0.143 | 0.144 | 0.142 | 0.139 | 0.136 | 0.13  | 0.131 | 0.132 | 0.131 |
| 325 | 0.144 | 0.144 | 0.143 | 0.14  | 0.136 | 0.13  | 0.131 | 0.132 | 0.131 |
| 324 | 0.144 | 0.144 | 0.143 | 0.14  | 0.136 | 0.131 | 0.131 | 0.132 | 0.131 |
| 323 | 0.144 | 0.144 | 0.143 | 0.14  | 0.136 | 0.131 | 0.131 | 0.133 | 0.131 |
| 322 | 0.145 | 0.145 | 0.143 | 0.14  | 0.136 | 0.131 | 0.131 | 0.133 | 0.131 |
| 321 | 0.145 | 0.145 | 0.143 | 0.14  | 0.136 | 0.131 | 0.132 | 0.133 | 0.132 |
| 320 | 0.145 | 0.145 | 0.144 | 0.141 | 0.136 | 0.131 | 0.132 | 0.133 | 0.132 |
| 319 | 0.145 | 0.145 | 0.144 | 0.141 | 0.137 | 0.131 | 0.132 | 0.133 | 0.132 |
| 318 | 0.146 | 0.146 | 0.144 | 0.141 | 0.137 | 0.132 | 0.132 | 0.133 | 0.132 |
| 317 | 0.146 | 0.146 | 0.144 | 0.141 | 0.137 | 0.132 | 0.132 | 0.133 | 0.132 |
| 316 | 0.146 | 0.146 | 0.144 | 0.141 | 0.137 | 0.131 | 0.132 | 0.133 | 0.132 |
| 315 | 0.146 | 0.146 | 0.144 | 0.141 | 0.136 | 0.131 | 0.131 | 0.133 | 0.132 |
| 314 | 0.146 | 0.145 | 0.143 | 0.14  | 0.136 | 0.13  | 0.131 | 0.132 | 0.131 |
| 313 | 0.145 | 0.145 | 0.143 | 0.14  | 0.135 | 0.13  | 0.13  | 0.132 | 0.13  |
| 312 | 0.144 | 0.143 | 0.142 | 0.139 | 0.134 | 0.129 | 0.129 | 0.131 | 0.13  |
| 311 | 0.143 | 0.142 | 0.141 | 0.137 | 0.133 | 0.128 | 0.129 | 0.13  | 0.129 |
| 310 | 0.142 | 0.141 | 0.14  | 0.136 | 0.132 | 0.127 | 0.128 | 0.129 | 0.128 |
| 309 | 0.141 | 0.14  | 0.138 | 0.135 | 0.131 | 0.126 | 0.126 | 0.128 | 0.126 |
| 308 | 0.139 | 0.139 | 0.137 | 0.133 | 0.13  | 0.125 | 0.125 | 0.127 | 0.125 |
| 307 | 0.137 | 0.137 | 0.135 | 0.132 | 0.128 | 0.123 | 0.124 | 0.125 | 0.124 |
| 306 | 0.136 | 0.135 | 0.134 | 0.131 | 0.127 | 0.122 | 0.123 | 0.124 | 0.123 |
| 305 | 0.134 | 0.134 | 0.132 | 0.129 | 0.125 | 0.121 | 0.121 | 0.122 | 0.121 |
| 304 | 0.132 | 0.132 | 0.13  | 0.127 | 0.124 | 0.119 | 0.12  | 0.121 | 0.12  |
| 303 | 0.13  | 0.13  | 0.128 | 0.126 | 0.122 | 0.118 | 0.118 | 0.119 | 0.118 |
| 302 | 0.128 | 0.128 | 0.126 | 0.124 | 0.121 | 0.116 | 0.117 | 0.118 | 0.117 |
| 301 | 0.126 | 0.126 | 0.125 | 0.122 | 0.119 | 0.115 | 0.115 | 0.117 | 0.115 |
| 300 | 0.124 | 0.124 | 0.122 | 0.12  | 0.117 | 0.113 | 0.113 | 0.115 | 0.113 |
| 299 | 0.122 | 0.122 | 0.121 | 0.118 | 0.115 | 0.111 | 0.112 | 0.113 | 0.112 |
| 298 | 0.12  | 0.12  | 0.119 | 0.116 | 0.114 | 0.11  | 0.111 | 0.112 | 0.11  |
| 297 | 0.118 | 0.118 | 0.117 | 0.115 | 0.112 | 0.108 | 0.109 | 0.11  | 0.109 |
| 296 | 0.115 | 0.116 | 0.115 | 0.113 | 0.11  | 0.106 | 0.108 | 0.109 | 0.107 |
| 295 | 0.114 | 0.114 | 0.113 | 0.111 | 0.109 | 0.105 | 0.106 | 0.107 | 0.106 |
| 294 | 0.112 | 0.112 | 0.111 | 0.11  | 0.107 | 0.104 | 0.104 | 0.106 | 0.104 |
| 293 | 0.11  | 0.111 | 0.109 | 0.108 | 0.106 | 0.103 | 0.103 | 0.104 | 0.103 |
| 292 | 0.108 | 0.109 | 0.108 | 0.107 | 0.104 | 0.101 | 0.102 | 0.103 | 0.102 |
| 291 | 0.106 | 0.107 | 0.106 | 0.105 | 0.103 | 0.1   | 0.101 | 0.102 | 0.101 |
| 290 | 0.105 | 0.106 | 0.105 | 0.104 | 0.101 | 0.099 | 0.1   | 0.101 | 0.1   |
| 289 | 0.103 | 0.104 | 0.103 | 0.102 | 0.1   | 0.098 | 0.098 | 0.1   | 0.098 |
| 288 | 0.101 | 0.102 | 0.102 | 0.101 | 0.099 | 0.097 | 0.097 | 0.099 | 0.097 |
| 287 | 0.1   | 0.101 | 0.101 | 0.1   | 0.098 | 0.096 | 0.097 | 0.098 | 0.097 |
| 286 | 0.098 | 0.099 | 0.099 | 0.098 | 0.097 | 0.095 | 0.096 | 0.097 | 0.096 |
| 285 | 0.097 | 0.098 | 0.099 | 0.098 | 0.096 | 0.095 | 0.095 | 0.096 | 0.095 |
| 284 | 0.096 | 0.097 | 0.097 | 0.096 | 0.095 | 0.094 | 0.095 | 0.096 | 0.094 |
| 283 | 0.095 | 0.096 | 0.097 | 0.096 | 0.094 | 0.093 | 0.094 | 0.095 | 0.094 |
| 282 | 0.095 | 0.096 | 0.096 | 0.096 | 0.094 | 0.093 | 0.094 | 0.095 | 0.094 |
| 281 | 0.094 | 0.095 | 0.095 | 0.095 | 0.094 | 0.093 | 0.094 | 0.095 | 0.094 |
| 280 | 0.094 | 0.095 | 0.096 | 0.096 | 0.094 | 0.093 | 0.094 | 0.095 | 0.094 |
| 279 | 0.095 | 0.096 | 0.096 | 0.096 | 0.094 | 0.093 | 0.094 | 0.096 | 0.094 |
| 278 | 0.095 | 0.097 | 0.097 | 0.097 | 0.095 | 0.095 | 0.095 | 0.096 | 0.095 |
| 277 | 0.097 | 0.099 | 0.099 | 0.099 | 0.097 | 0.096 | 0.097 | 0.098 | 0.096 |
| 276 | 0.099 | 0.101 | 0.1   | 0.1   | 0.099 | 0.097 | 0.098 | 0.099 | 0.098 |
| 275 | 0.102 | 0.103 | 0.103 | 0.102 | 0.1   | 0.099 | 0.1   | 0.101 | 0.1   |
| 274 | 0.105 | 0.106 | 0.105 | 0.105 | 0.103 | 0.102 | 0.102 | 0.103 | 0.102 |
| 273 | 0.107 | 0.109 | 0.108 | 0.108 | 0.105 | 0.104 | 0.104 | 0.105 | 0.104 |
| 272 | 0.111 | 0.112 | 0.112 | 0.11  | 0.108 | 0.106 | 0.107 | 0.108 | 0.107 |
| 271 | 0.114 | 0.115 | 0.114 | 0.113 | 0.11  | 0.108 | 0.109 | 0.11  | 0.109 |
| 270 | 0.117 | 0.118 | 0.117 | 0.116 | 0.113 | 0.11  | 0.111 | 0.112 | 0.111 |
| 269 | 0.12  | 0.121 | 0.12  | 0.118 | 0.116 | 0.113 | 0.113 | 0.115 | 0.114 |
| 268 | 0.123 | 0.124 | 0.123 | 0.121 | 0.118 | 0.115 | 0.116 | 0.117 | 0.116 |
| 267 | 0.126 | 0.127 | 0.125 | 0.123 | 0.12  | 0.117 | 0.118 | 0.119 | 0.118 |
| 266 | 0.128 | 0.129 | 0.128 | 0.125 | 0.122 | 0.119 | 0.12  | 0.121 | 0.12  |
| 265 | 0.13  | 0.131 | 0.129 | 0.127 | 0.125 | 0.121 | 0.122 | 0.123 | 0.122 |
| 264 | 0.132 | 0.132 | 0.131 | 0.129 | 0.126 | 0.123 | 0.124 | 0.125 | 0.124 |
| 263 | 0.134 | 0.134 | 0.133 | 0.131 | 0.128 | 0.125 | 0.125 | 0.126 | 0.126 |
| 262 | 0.135 | 0.135 | 0.134 | 0.132 | 0.13  | 0.126 | 0.127 | 0.128 | 0.127 |
| 261 | 0.136 | 0.136 | 0.135 | 0.133 | 0.131 | 0.127 | 0.128 | 0.13  | 0.128 |
| 260 | 0.136 | 0.137 | 0.136 | 0.134 | 0.131 | 0.129 | 0.129 | 0.13  | 0.13  |
| 259 | 0.136 | 0.137 | 0.136 | 0.134 | 0.132 | 0.13  | 0.13  | 0.132 | 0.131 |
| 258 | 0.136 | 0.137 | 0.136 | 0.135 | 0.133 | 0.131 | 0.131 | 0.133 | 0.132 |
| 257 | 0.136 | 0.137 | 0.136 | 0.135 | 0.133 | 0.131 | 0.132 | 0.133 | 0.133 |
| 256 | 0.135 | 0.136 | 0.136 | 0.135 | 0.133 | 0.132 | 0.133 | 0.134 | 0.133 |
| 255 | 0.134 | 0.135 | 0.135 | 0.134 | 0.133 | 0.132 | 0.133 | 0.134 | 0.134 |
| 254 | 0.133 | 0.135 | 0.135 | 0.134 | 0.133 | 0.132 | 0.133 | 0.135 | 0.134 |
| 253 | 0.132 | 0.133 | 0.134 | 0.133 | 0.133 | 0.132 | 0.134 | 0.135 | 0.134 |
| 252 | 0.131 | 0.133 | 0.133 | 0.133 | 0.132 | 0.132 | 0.133 | 0.135 | 0.134 |
| 251 | 0.13  | 0.132 | 0.132 | 0.132 | 0.132 | 0.133 | 0.133 | 0.135 | 0.135 |
| 250 | 0.129 | 0.13  | 0.131 | 0.131 | 0.131 | 0.132 | 0.133 | 0.135 | 0.135 |
| 249 | 0.128 | 0.13  | 0.13  | 0.131 | 0.131 | 0.132 | 0.133 | 0.135 | 0.134 |
| 248 | 0.126 | 0.128 | 0.129 | 0.13  | 0.131 | 0.132 | 0.133 | 0.134 | 0.134 |
| 247 | 0.125 | 0.127 | 0.129 | 0.129 | 0.13  | 0.131 | 0.132 | 0.134 | 0.134 |
| 246 | 0.125 | 0.126 | 0.127 | 0.129 | 0.129 | 0.131 | 0.132 | 0.134 | 0.133 |
| 245 | 0.123 | 0.126 | 0.127 | 0.128 | 0.129 | 0.131 | 0.132 | 0.133 | 0.132 |
| 244 | 0.123 | 0.125 | 0.126 | 0.127 | 0.128 | 0.13  | 0.131 | 0.132 | 0.132 |
| 243 | 0.122 | 0.124 | 0.125 | 0.127 | 0.128 | 0.129 | 0.131 | 0.132 | 0.132 |
| 242 | 0.122 | 0.124 | 0.125 | 0.126 | 0.127 | 0.129 | 0.13  | 0.132 | 0.132 |
| 241 | 0.121 | 0.123 | 0.125 | 0.126 | 0.127 | 0.129 | 0.13  | 0.132 | 0.131 |
| 240 | 0.121 | 0.123 | 0.125 | 0.126 | 0.127 | 0.129 | 0.13  | 0.131 | 0.131 |
| 239 | 0.121 | 0.123 | 0.124 | 0.125 | 0.126 | 0.129 | 0.13  | 0.131 | 0.131 |
| 238 | 0.12  | 0.122 | 0.124 | 0.125 | 0.126 | 0.129 | 0.13  | 0.131 | 0.13  |
| 237 | 0.119 | 0.122 | 0.123 | 0.125 | 0.126 | 0.128 | 0.13  | 0.131 | 0.13  |
| 236 | 0.119 | 0.121 | 0.123 | 0.125 | 0.126 | 0.128 | 0.129 | 0.13  | 0.13  |

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 235 | 0.118 | 0.121 | 0.123 | 0.124 | 0.125 | 0.128 | 0.129 | 0.13  | 0.13  |
| 234 | 0.118 | 0.12  | 0.122 | 0.124 | 0.125 | 0.128 | 0.129 | 0.13  | 0.129 |
| 233 | 0.117 | 0.12  | 0.121 | 0.123 | 0.124 | 0.127 | 0.128 | 0.13  | 0.129 |
| 232 | 0.116 | 0.119 | 0.121 | 0.122 | 0.123 | 0.126 | 0.127 | 0.129 | 0.128 |
| 231 | 0.116 | 0.118 | 0.12  | 0.122 | 0.123 | 0.126 | 0.127 | 0.128 | 0.128 |
| 230 | 0.114 | 0.117 | 0.119 | 0.12  | 0.122 | 0.125 | 0.126 | 0.127 | 0.127 |
| 229 | 0.114 | 0.116 | 0.118 | 0.12  | 0.121 | 0.124 | 0.125 | 0.126 | 0.126 |
| 228 | 0.113 | 0.115 | 0.117 | 0.119 | 0.12  | 0.123 | 0.124 | 0.126 | 0.125 |
| 227 | 0.112 | 0.114 | 0.116 | 0.118 | 0.119 | 0.122 | 0.123 | 0.125 | 0.124 |
| 226 | 0.111 | 0.113 | 0.115 | 0.117 | 0.118 | 0.121 | 0.122 | 0.124 | 0.123 |
| 225 | 0.11  | 0.112 | 0.114 | 0.116 | 0.117 | 0.121 | 0.122 | 0.123 | 0.122 |
| 224 | 0.109 | 0.111 | 0.113 | 0.115 | 0.116 | 0.12  | 0.121 | 0.122 | 0.121 |
| 223 | 0.108 | 0.11  | 0.112 | 0.114 | 0.115 | 0.118 | 0.119 | 0.121 | 0.12  |
| 222 | 0.106 | 0.109 | 0.111 | 0.113 | 0.114 | 0.117 | 0.118 | 0.119 | 0.119 |
| 221 | 0.106 | 0.109 | 0.11  | 0.112 | 0.113 | 0.116 | 0.117 | 0.118 | 0.118 |
| 220 | 0.105 | 0.108 | 0.11  | 0.111 | 0.112 | 0.115 | 0.116 | 0.118 | 0.117 |
| 219 | 0.105 | 0.108 | 0.109 | 0.111 | 0.112 | 0.115 | 0.116 | 0.117 | 0.116 |
| 218 | 0.105 | 0.107 | 0.109 | 0.11  | 0.111 | 0.114 | 0.115 | 0.116 | 0.115 |
| 217 | 0.105 | 0.107 | 0.109 | 0.11  | 0.111 | 0.113 | 0.115 | 0.116 | 0.115 |
| 216 | 0.105 | 0.108 | 0.109 | 0.11  | 0.111 | 0.113 | 0.114 | 0.115 | 0.114 |
| 215 | 0.106 | 0.108 | 0.11  | 0.111 | 0.111 | 0.113 | 0.114 | 0.116 | 0.115 |
| 214 | 0.107 | 0.109 | 0.111 | 0.112 | 0.112 | 0.114 | 0.115 | 0.116 | 0.115 |
| 213 | 0.109 | 0.111 | 0.112 | 0.113 | 0.113 | 0.115 | 0.116 | 0.117 | 0.116 |
| 212 | 0.111 | 0.113 | 0.114 | 0.115 | 0.115 | 0.116 | 0.117 | 0.119 | 0.118 |
| 211 | 0.113 | 0.116 | 0.117 | 0.117 | 0.117 | 0.118 | 0.119 | 0.12  | 0.119 |
| 210 | 0.116 | 0.119 | 0.12  | 0.12  | 0.12  | 0.121 | 0.122 | 0.123 | 0.122 |
| 209 | 0.12  | 0.122 | 0.123 | 0.123 | 0.123 | 0.124 | 0.125 | 0.126 | 0.125 |
| 208 | 0.124 | 0.126 | 0.127 | 0.127 | 0.126 | 0.127 | 0.128 | 0.129 | 0.128 |
| 207 | 0.128 | 0.13  | 0.131 | 0.131 | 0.13  | 0.131 | 0.132 | 0.133 | 0.132 |
| 206 | 0.132 | 0.134 | 0.135 | 0.135 | 0.134 | 0.134 | 0.135 | 0.136 | 0.135 |
| 205 | 0.137 | 0.139 | 0.139 | 0.139 | 0.138 | 0.138 | 0.139 | 0.141 | 0.14  |
| 204 | 0.141 | 0.143 | 0.143 | 0.143 | 0.143 | 0.142 | 0.143 | 0.144 | 0.144 |
| 203 | 0.145 | 0.147 | 0.148 | 0.147 | 0.146 | 0.146 | 0.147 | 0.148 | 0.147 |
| 202 | 0.149 | 0.151 | 0.151 | 0.151 | 0.149 | 0.149 | 0.15  | 0.151 | 0.151 |
| 201 | 0.153 | 0.155 | 0.155 | 0.154 | 0.153 | 0.153 | 0.153 | 0.155 | 0.154 |
| 200 | 0.156 | 0.158 | 0.158 | 0.157 | 0.156 | 0.155 | 0.156 | 0.157 | 0.157 |
| 199 | 0.159 | 0.161 | 0.16  | 0.16  | 0.158 | 0.158 | 0.158 | 0.16  | 0.159 |
| 198 | 0.162 | 0.164 | 0.163 | 0.162 | 0.161 | 0.16  | 0.161 | 0.162 | 0.162 |
| 197 | 0.164 | 0.166 | 0.166 | 0.166 | 0.163 | 0.162 | 0.163 | 0.164 | 0.164 |
| 196 | 0.166 | 0.168 | 0.167 | 0.166 | 0.165 | 0.166 | 0.164 | 0.166 | 0.166 |
| 195 | 0.167 | 0.169 | 0.169 | 0.167 | 0.165 | 0.164 | 0.165 | 0.167 | 0.167 |
| 194 | 0.168 | 0.169 | 0.169 | 0.168 | 0.166 | 0.164 | 0.165 | 0.167 | 0.167 |
| 193 | 0.168 | 0.17  | 0.17  | 0.167 | 0.166 | 0.164 | 0.165 | 0.166 | 0.167 |
| 192 | 0.168 | 0.17  | 0.168 | 0.167 | 0.165 | 0.163 | 0.164 | 0.165 | 0.166 |
| 191 | 0.167 | 0.168 | 0.167 | 0.165 | 0.163 | 0.161 | 0.162 | 0.163 | 0.164 |
| 190 | 0.166 | 0.166 | 0.165 | 0.163 | 0.161 | 0.159 | 0.159 | 0.16  | 0.161 |

Figure 3: Chlb in methanol-water (1:1) at different pigment concentrations. A linear dependence seems to account for the data.

Figure 3(a): CD data (mdeg).

| WL/nm | Full concentration | 1/2 conc. | 1/4 conc. | 1/8 conc. | 1/16 conc. |
|-------|--------------------|-----------|-----------|-----------|------------|
| 550   | 0.55               | -0.06     | -0.02     | 0.02      | 0.11       |
| 549   | 0.54               | -0.09     | -0.28     | 0.08      | -0.10      |
| 548   | 0.70               | 0.04      | -0.15     | 0.21      | -0.07      |
| 547   | 0.75               | 0.20      | -0.12     | 0.27      | -0.18      |
| 546   | 0.89               | 0.54      | 0.10      | 0.11      | -0.14      |
| 545   | 1.37               | 0.60      | 0.35      | 0.10      | -0.04      |
| 544   | 1.68               | 0.77      | 0.30      | 0.00      | -0.03      |
| 543   | 1.90               | 0.94      | 0.30      | 0.04      | -0.22      |
| 542   | 2.35               | 1.07      | 0.29      | 0.07      | -0.08      |
| 541   | 2.75               | 1.16      | 0.43      | 0.15      | 0.17       |
| 540   | 2.93               | 1.38      | 0.44      | 0.19      | 0.39       |
| 539   | 3.33               | 1.34      | 0.61      | 0.34      | 0.48       |
| 538   | 3.60               | 1.59      | 0.46      | 0.44      | 0.57       |
| 537   | 3.80               | 1.60      | 0.62      | 0.60      | 0.49       |
| 536   | 4.26               | 1.91      | 0.52      | 0.47      | 0.45       |
| 535   | 4.56               | 2.09      | 0.70      | 0.45      | 0.30       |
| 534   | 4.88               | 2.28      | 0.95      | 0.43      | 0.10       |
| 533   | 5.26               | 2.26      | 1.07      | 0.55      | 0.09       |
| 532   | 5.41               | 2.24      | 1.05      | 0.68      | 0.10       |
| 531   | 5.40               | 1.98      | 1.00      | 0.77      | 0.19       |
| 530   | 5.33               | 2.19      | 0.87      | 0.62      | 0.33       |
| 529   | 5.37               | 2.23      | 1.04      | 0.71      | 0.43       |
| 528   | 5.51               | 2.30      | 1.18      | 0.66      | 0.28       |
| 527   | 5.37               | 2.12      | 1.17      | 0.65      | 0.16       |
| 526   | 5.11               | 2.06      | 1.22      | 0.83      | 0.24       |
| 525   | 4.87               | 1.80      | 0.86      | 0.65      | 0.31       |
| 524   | 4.33               | 1.67      | 0.53      | 0.29      | 0.33       |
| 523   | 3.91               | 1.48      | 0.47      | 0.26      | 0.31       |
| 522   | 3.45               | 1.27      | 0.43      | 0.05      | 0.15       |
| 521   | 2.64               | 1.19      | 0.53      | 0.05      | 0.03       |
| 520   | 1.62               | 0.90      | 0.54      | 0.17      | 0.07       |
| 519   | 0.59               | 0.23      | 0.07      | 0.04      | -0.12      |
| 518   | -0.77              | -0.57     | -0.28     | -0.10     | -0.12      |
| 517   | -2.53              | -1.50     | -0.62     | -0.28     | -0.21      |
| 516   | -4.57              | -2.48     | -0.90     | -0.54     | -0.09      |
| 515   | -6.99              | -3.43     | -1.37     | -0.87     | -0.17      |
| 514   | -9.80              | -4.77     | -1.94     | -1.15     | -0.32      |
| 513   | -12.94             | -6.36     | -2.71     | -1.37     | -0.71      |
| 512   | -16.62             | -8.13     | -3.49     | -1.73     | -1.01      |
| 511   | -21.02             | -10.16    | -4.42     | -2.25     | -1.23      |
| 510   | -26.00             | -12.48    | -5.54     | -2.83     | -1.39      |

|     |         |        |        |        |        |
|-----|---------|--------|--------|--------|--------|
| 509 | -31.62  | -15.08 | -6.83  | -3.55  | -1.74  |
| 508 | -37.97  | -18.20 | -8.44  | -4.28  | -2.20  |
| 507 | -44.96  | -21.56 | -9.92  | -5.04  | -2.71  |
| 506 | -52.89  | -25.20 | -11.52 | -5.91  | -3.12  |
| 505 | -61.55  | -29.14 | -13.30 | -6.91  | -3.52  |
| 504 | -70.96  | -33.59 | -15.32 | -7.89  | -4.02  |
| 503 | -81.10  | -38.27 | -17.48 | -8.99  | -4.72  |
| 502 | -91.83  | -43.39 | -19.90 | -10.18 | -5.50  |
| 501 | -102.82 | -48.44 | -22.13 | -11.37 | -6.10  |
| 500 | -114.22 | -53.68 | -24.53 | -12.73 | -6.69  |
| 499 | -125.44 | -58.94 | -26.91 | -14.09 | -7.17  |
| 498 | -136.61 | -64.19 | -29.39 | -15.34 | -7.71  |
| 497 | -147.23 | -69.17 | -31.71 | -16.52 | -8.19  |
| 496 | -157.06 | -73.83 | -33.84 | -17.56 | -8.82  |
| 495 | -165.46 | -77.78 | -35.61 | -18.42 | -9.36  |
| 494 | -172.24 | -80.90 | -37.04 | -19.18 | -9.89  |
| 493 | -176.91 | -83.21 | -38.09 | -19.80 | -10.32 |
| 492 | -179.22 | -84.33 | -38.66 | -20.02 | -10.56 |
| 491 | -178.90 | -84.28 | -38.62 | -20.00 | -10.37 |
| 490 | -176.16 | -83.09 | -38.04 | -19.78 | -10.22 |
| 489 | -170.96 | -80.82 | -36.99 | -19.33 | -9.92  |
| 488 | -163.73 | -77.48 | -35.43 | -18.60 | -9.51  |
| 487 | -154.93 | -73.32 | -33.65 | -17.66 | -9.09  |
| 486 | -144.65 | -68.46 | -31.41 | -16.38 | -8.62  |
| 485 | -133.40 | -63.14 | -28.98 | -15.04 | -7.90  |
| 484 | -121.65 | -57.69 | -26.42 | -13.72 | -7.21  |
| 483 | -109.79 | -52.25 | -23.94 | -12.44 | -6.48  |
| 482 | -98.32  | -46.88 | -21.43 | -11.22 | -5.75  |
| 481 | -87.75  | -41.84 | -19.18 | -9.95  | -5.12  |
| 480 | -78.20  | -37.25 | -17.08 | -8.76  | -4.64  |
| 479 | -69.83  | -33.18 | -15.23 | -7.84  | -4.14  |
| 478 | -62.48  | -29.57 | -13.54 | -7.04  | -3.64  |
| 477 | -56.13  | -26.60 | -12.16 | -6.32  | -3.10  |
| 476 | -50.83  | -24.13 | -10.96 | -5.83  | -2.78  |
| 475 | -46.49  | -22.12 | -9.99  | -5.29  | -2.67  |
| 474 | -42.97  | -20.51 | -9.22  | -4.75  | -2.49  |
| 473 | -40.16  | -19.28 | -8.70  | -4.48  | -2.36  |
| 472 | -38.11  | -18.25 | -8.29  | -4.25  | -2.15  |
| 471 | -36.48  | -17.46 | -7.97  | -4.08  | -1.94  |
| 470 | -35.29  | -16.90 | -7.68  | -4.00  | -1.97  |
| 469 | -34.37  | -16.39 | -7.42  | -3.94  | -2.06  |
| 468 | -33.71  | -16.08 | -7.42  | -3.82  | -2.04  |
| 467 | -33.12  | -15.84 | -7.39  | -3.77  | -2.07  |
| 466 | -32.83  | -15.67 | -7.26  | -3.72  | -1.92  |
| 465 | -32.60  | -15.44 | -7.12  | -3.64  | -1.90  |
| 464 | -32.35  | -15.33 | -7.09  | -3.66  | -1.97  |
| 463 | -32.09  | -15.22 | -7.01  | -3.67  | -1.91  |
| 462 | -31.94  | -15.18 | -6.99  | -3.68  | -1.88  |
| 461 | -31.72  | -15.09 | -6.89  | -3.63  | -1.92  |
| 460 | -31.53  | -15.00 | -6.86  | -3.55  | -1.78  |
| 459 | -31.46  | -14.88 | -6.83  | -3.39  | -1.74  |
| 458 | -31.24  | -14.75 | -6.85  | -3.35  | -1.78  |
| 457 | -30.93  | -14.60 | -6.76  | -3.30  | -1.70  |
| 456 | -30.56  | -14.39 | -6.53  | -3.34  | -1.72  |
| 455 | -30.03  | -14.03 | -6.35  | -3.31  | -1.75  |
| 454 | -29.38  | -13.77 | -6.36  | -3.28  | -1.68  |
| 453 | -28.70  | -13.53 | -6.25  | -3.16  | -1.61  |
| 452 | -28.06  | -13.21 | -6.21  | -3.10  | -1.60  |
| 451 | -27.30  | -12.87 | -6.05  | -3.01  | -1.58  |
| 450 | -26.53  | -12.45 | -5.83  | -2.92  | -1.50  |
| 449 | -25.79  | -12.05 | -5.65  | -2.83  | -1.40  |
| 448 | -24.88  | -11.62 | -5.41  | -2.77  | -1.38  |
| 447 | -23.87  | -11.23 | -5.10  | -2.69  | -1.31  |
| 446 | -22.87  | -10.80 | -4.85  | -2.58  | -1.19  |
| 445 | -21.71  | -10.32 | -4.56  | -2.47  | -1.17  |
| 444 | -20.50  | -9.82  | -4.34  | -2.31  | -1.11  |
| 443 | -19.31  | -9.18  | -4.21  | -2.15  | -1.09  |
| 442 | -18.09  | -8.54  | -4.05  | -2.06  | -1.13  |
| 441 | -16.85  | -7.91  | -3.77  | -1.95  | -1.06  |
| 440 | -15.54  | -7.28  | -3.43  | -1.79  | -0.85  |
| 439 | -14.19  | -6.64  | -3.05  | -1.65  | -0.75  |
| 438 | -12.99  | -6.01  | -2.74  | -1.46  | -0.65  |
| 437 | -11.74  | -5.40  | -2.49  | -1.26  | -0.66  |
| 436 | -10.56  | -4.92  | -2.31  | -1.10  | -0.62  |
| 435 | -9.50   | -4.45  | -2.04  | -1.02  | -0.56  |
| 434 | -8.50   | -4.01  | -1.82  | -0.96  | -0.48  |
| 433 | -7.65   | -3.59  | -1.60  | -0.89  | -0.43  |
| 432 | -7.09   | -3.22  | -1.55  | -0.85  | -0.41  |
| 431 | -6.65   | -3.04  | -1.41  | -0.73  | -0.43  |
| 430 | -6.33   | -2.85  | -1.35  | -0.64  | -0.41  |
| 429 | -6.12   | -2.80  | -1.31  | -0.61  | -0.33  |
| 428 | -6.05   | -2.82  | -1.25  | -0.63  | -0.26  |
| 427 | -6.08   | -2.88  | -1.28  | -0.68  | -0.25  |
| 426 | -6.20   | -2.96  | -1.32  | -0.73  | -0.29  |
| 425 | -6.40   | -3.10  | -1.38  | -0.65  | -0.35  |
| 424 | -6.63   | -3.12  | -1.48  | -0.61  | -0.42  |
| 423 | -6.88   | -3.23  | -1.57  | -0.61  | -0.44  |
| 422 | -7.20   | -3.35  | -1.54  | -0.73  | -0.43  |
| 421 | -7.45   | -3.39  | -1.57  | -0.82  | -0.44  |
| 420 | -7.73   | -3.57  | -1.63  | -0.90  | -0.41  |
| 419 | -7.97   | -3.69  | -1.72  | -0.87  | -0.39  |
| 418 | -8.14   | -3.79  | -1.80  | -0.86  | -0.42  |
| 417 | -8.26   | -3.85  | -1.86  | -0.87  | -0.41  |
| 416 | -8.38   | -3.91  | -1.82  | -0.90  | -0.42  |
| 415 | -8.51   | -3.96  | -1.85  | -0.92  | -0.45  |
| 414 | -8.73   | -4.09  | -1.87  | -0.93  | -0.40  |
| 413 | -8.96   | -4.20  | -1.90  | -0.90  | -0.40  |
| 412 | -9.23   | -4.28  | -1.94  | -0.93  | -0.44  |
| 411 | -9.47   | -4.33  | -2.03  | -0.94  | -0.46  |



|     |        |        |       |       |       |
|-----|--------|--------|-------|-------|-------|
| 410 | -9.60  | -4.43  | -2.01 | -0.97 | -0.45 |
| 409 | -9.76  | -4.57  | -2.07 | -1.03 | -0.49 |
| 408 | -9.98  | -4.73  | -2.19 | -1.12 | -0.50 |
| 407 | -10.29 | -4.84  | -2.27 | -1.14 | -0.50 |
| 406 | -10.74 | -4.99  | -2.37 | -1.15 | -0.51 |
| 405 | -11.24 | -5.18  | -2.47 | -1.18 | -0.61 |
| 404 | -11.79 | -5.44  | -2.48 | -1.24 | -0.66 |
| 403 | -12.46 | -5.73  | -2.62 | -1.35 | -0.74 |
| 402 | -13.13 | -6.01  | -2.81 | -1.51 | -0.81 |
| 401 | -13.87 | -6.35  | -2.95 | -1.64 | -0.79 |
| 400 | -14.78 | -6.88  | -3.13 | -1.70 | -0.78 |
| 399 | -15.69 | -7.38  | -3.34 | -1.79 | -0.94 |
| 398 | -16.67 | -7.85  | -3.52 | -1.83 | -1.09 |
| 397 | -17.65 | -8.32  | -3.76 | -1.92 | -1.15 |
| 396 | -18.63 | -8.73  | -4.00 | -2.09 | -1.18 |
| 395 | -19.59 | -9.17  | -4.24 | -2.23 | -1.14 |
| 394 | -20.51 | -9.63  | -4.39 | -2.27 | -1.04 |
| 393 | -21.31 | -9.96  | -4.55 | -2.37 | -1.10 |
| 392 | -21.98 | -10.27 | -4.71 | -2.45 | -1.20 |
| 391 | -22.45 | -10.50 | -4.87 | -2.54 | -1.29 |
| 390 | -22.81 | -10.66 | -5.02 | -2.60 | -1.35 |
| 389 | -23.12 | -10.84 | -5.15 | -2.56 | -1.36 |
| 388 | -23.31 | -10.93 | -5.18 | -2.52 | -1.37 |
| 387 | -23.54 | -11.02 | -5.20 | -2.56 | -1.40 |
| 386 | -23.77 | -11.14 | -5.19 | -2.56 | -1.38 |
| 385 | -23.95 | -11.20 | -5.19 | -2.65 | -1.42 |
| 384 | -24.14 | -11.29 | -5.25 | -2.75 | -1.40 |
| 383 | -24.38 | -11.39 | -5.26 | -2.74 | -1.31 |
| 382 | -24.54 | -11.46 | -5.30 | -2.73 | -1.35 |
| 381 | -24.82 | -11.55 | -5.38 | -2.73 | -1.38 |
| 380 | -25.15 | -11.67 | -5.44 | -2.73 | -1.40 |
| 379 | -25.45 | -11.81 | -5.46 | -2.81 | -1.46 |
| 378 | -25.78 | -11.96 | -5.58 | -2.91 | -1.51 |
| 377 | -26.16 | -12.18 | -5.68 | -2.97 | -1.55 |
| 376 | -26.51 | -12.37 | -5.81 | -3.00 | -1.58 |
| 375 | -26.87 | -12.55 | -5.87 | -3.05 | -1.59 |
| 374 | -27.24 | -12.67 | -5.91 | -3.10 | -1.51 |
| 373 | -27.50 | -12.80 | -5.90 | -3.12 | -1.51 |
| 372 | -27.69 | -12.86 | -6.01 | -3.18 | -1.56 |
| 371 | -27.90 | -13.01 | -6.05 | -3.21 | -1.59 |
| 370 | -28.13 | -13.16 | -6.16 | -3.22 | -1.63 |
| 369 | -28.32 | -13.26 | -6.15 | -3.22 | -1.69 |
| 368 | -28.58 | -13.31 | -6.21 | -3.30 | -1.70 |
| 367 | -28.82 | -13.42 | -6.23 | -3.32 | -1.74 |
| 366 | -29.11 | -13.55 | -6.35 | -3.39 | -1.82 |
| 365 | -29.45 | -13.72 | -6.43 | -3.40 | -1.82 |
| 364 | -29.86 | -13.93 | -6.53 | -3.42 | -1.78 |
| 363 | -30.35 | -14.10 | -6.61 | -3.43 | -1.81 |
| 362 | -30.83 | -14.35 | -6.73 | -3.50 | -1.80 |
| 361 | -31.40 | -14.63 | -6.82 | -3.52 | -1.82 |
| 360 | -32.02 | -14.92 | -6.92 | -3.57 | -1.90 |
| 359 | -32.62 | -15.17 | -7.09 | -3.68 | -1.93 |
| 358 | -33.28 | -15.51 | -7.21 | -3.82 | -1.98 |
| 357 | -33.92 | -15.74 | -7.36 | -3.85 | -1.99 |
| 356 | -34.44 | -16.00 | -7.51 | -3.87 | -2.03 |
| 355 | -34.81 | -16.22 | -7.60 | -3.84 | -2.03 |
| 354 | -35.08 | -16.33 | -7.65 | -3.86 | -2.03 |
| 353 | -35.19 | -16.35 | -7.71 | -3.96 | -1.98 |
| 352 | -35.05 | -16.32 | -7.64 | -4.00 | -1.94 |
| 351 | -34.79 | -16.15 | -7.60 | -3.95 | -1.92 |
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| 349 | -33.67 | -15.60 | -7.29 | -3.75 | -2.00 |
| 348 | -32.91 | -15.25 | -7.17 | -3.66 | -1.98 |
| 347 | -32.07 | -14.85 | -6.99 | -3.55 | -1.88 |
| 346 | -31.05 | -14.35 | -6.72 | -3.49 | -1.80 |
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| 344 | -29.10 | -13.30 | -6.27 | -3.23 | -1.68 |
| 343 | -28.17 | -12.89 | -6.04 | -3.16 | -1.68 |
| 342 | -27.30 | -12.52 | -5.91 | -3.03 | -1.62 |
| 341 | -26.53 | -12.25 | -5.79 | -2.92 | -1.56 |
| 340 | -25.77 | -11.91 | -5.62 | -2.86 | -1.54 |
| 339 | -25.08 | -11.57 | -5.46 | -2.79 | -1.47 |
| 338 | -24.49 | -11.27 | -5.33 | -2.76 | -1.42 |
| 337 | -23.94 | -10.96 | -5.24 | -2.73 | -1.43 |
| 336 | -23.43 | -10.68 | -5.12 | -2.62 | -1.43 |
| 335 | -22.93 | -10.50 | -5.01 | -2.56 | -1.39 |
| 334 | -22.46 | -10.30 | -4.92 | -2.49 | -1.36 |
| 333 | -22.07 | -10.14 | -4.82 | -2.42 | -1.29 |
| 332 | -21.77 | -10.04 | -4.74 | -2.43 | -1.23 |
| 331 | -21.51 | -9.89  | -4.72 | -2.36 | -1.20 |
| 330 | -21.34 | -9.76  | -4.69 | -2.29 | -1.17 |
| 329 | -21.27 | -9.75  | -4.65 | -2.32 | -1.19 |
| 328 | -21.27 | -9.70  | -4.65 | -2.35 | -1.22 |
| 327 | -21.39 | -9.75  | -4.64 | -2.42 | -1.23 |
| 326 | -21.51 | -9.83  | -4.63 | -2.51 | -1.25 |
| 325 | -21.62 | -9.84  | -4.63 | -2.52 | -1.27 |
| 324 | -21.68 | -9.88  | -4.67 | -2.50 | -1.25 |
| 323 | -21.69 | -9.94  | -4.72 | -2.52 | -1.30 |
| 322 | -21.61 | -9.90  | -4.78 | -2.47 | -1.31 |
| 321 | -21.46 | -9.87  | -4.70 | -2.41 | -1.26 |
| 320 | -21.17 | -9.74  | -4.61 | -2.37 | -1.19 |
| 319 | -20.72 | -9.48  | -4.45 | -2.31 | -1.19 |
| 318 | -20.08 | -9.17  | -4.34 | -2.22 | -1.16 |
| 317 | -19.28 | -8.80  | -4.24 | -2.17 | -1.16 |
| 316 | -18.34 | -8.34  | -4.07 | -2.05 | -1.10 |
| 315 | -17.42 | -7.95  | -3.79 | -1.90 | -1.01 |
| 314 | -16.33 | -7.44  | -3.47 | -1.76 | -0.88 |
| 313 | -15.15 | -6.87  | -3.16 | -1.62 | -0.85 |
| 312 | -13.98 | -6.27  | -2.99 | -1.46 | -0.79 |

|     |        |        |       |       |       |
|-----|--------|--------|-------|-------|-------|
| 311 | -12.78 | -5.75  | -2.81 | -1.33 | -0.73 |
| 310 | -11.59 | -5.22  | -2.61 | -1.23 | -0.61 |
| 309 | -10.51 | -4.75  | -2.32 | -1.13 | -0.52 |
| 308 | -9.42  | -4.26  | -2.07 | -1.03 | -0.47 |
| 307 | -8.48  | -3.76  | -1.81 | -0.93 | -0.48 |
| 306 | -7.59  | -3.33  | -1.71 | -0.79 | -0.48 |
| 305 | -6.71  | -2.97  | -1.47 | -0.65 | -0.40 |
| 304 | -6.00  | -2.62  | -1.28 | -0.63 | -0.34 |
| 303 | -5.30  | -2.31  | -1.06 | -0.57 | -0.30 |
| 302 | -4.69  | -2.05  | -0.89 | -0.48 | -0.24 |
| 301 | -4.18  | -1.81  | -0.76 | -0.44 | -0.20 |
| 300 | -3.65  | -1.61  | -0.77 | -0.36 | -0.19 |
| 299 | -3.19  | -1.44  | -0.72 | -0.32 | -0.17 |
| 298 | -2.81  | -1.19  | -0.64 | -0.26 | -0.17 |
| 297 | -2.52  | -1.02  | -0.57 | -0.24 | -0.20 |
| 296 | -2.33  | -0.95  | -0.51 | -0.22 | -0.18 |
| 295 | -2.21  | -0.92  | -0.44 | -0.26 | -0.13 |
| 294 | -2.19  | -0.91  | -0.41 | -0.26 | -0.11 |
| 293 | -2.20  | -0.96  | -0.45 | -0.26 | -0.10 |
| 292 | -2.24  | -1.04  | -0.51 | -0.24 | -0.16 |
| 291 | -2.39  | -1.13  | -0.56 | -0.24 | -0.17 |
| 290 | -2.57  | -1.16  | -0.63 | -0.22 | -0.18 |
| 289 | -2.79  | -1.25  | -0.70 | -0.24 | -0.18 |
| 288 | -3.09  | -1.34  | -0.73 | -0.30 | -0.12 |
| 287 | -3.35  | -1.43  | -0.78 | -0.36 | -0.12 |
| 286 | -3.65  | -1.65  | -0.82 | -0.41 | -0.18 |
| 285 | -4.05  | -1.86  | -0.87 | -0.46 | -0.21 |
| 284 | -4.56  | -2.07  | -0.99 | -0.53 | -0.29 |
| 283 | -5.12  | -2.34  | -1.15 | -0.58 | -0.33 |
| 282 | -5.79  | -2.61  | -1.31 | -0.66 | -0.30 |
| 281 | -6.54  | -2.86  | -1.48 | -0.74 | -0.31 |
| 280 | -7.34  | -3.26  | -1.66 | -0.86 | -0.37 |
| 279 | -8.26  | -3.67  | -1.83 | -0.98 | -0.50 |
| 278 | -9.26  | -4.18  | -2.02 | -1.08 | -0.61 |
| 277 | -10.39 | -4.73  | -2.24 | -1.21 | -0.73 |
| 276 | -11.60 | -5.19  | -2.52 | -1.36 | -0.80 |
| 275 | -12.88 | -5.66  | -2.80 | -1.49 | -0.82 |
| 274 | -14.13 | -6.27  | -3.11 | -1.63 | -0.87 |
| 273 | -15.37 | -6.86  | -3.37 | -1.73 | -0.89 |
| 272 | -16.57 | -7.48  | -3.61 | -1.84 | -0.91 |
| 271 | -17.67 | -8.09  | -3.88 | -1.98 | -0.94 |
| 270 | -18.68 | -8.52  | -4.10 | -2.10 | -1.00 |
| 269 | -19.64 | -8.88  | -4.25 | -2.18 | -1.06 |
| 268 | -20.47 | -9.25  | -4.44 | -2.23 | -1.10 |
| 267 | -21.20 | -9.56  | -4.62 | -2.28 | -1.17 |
| 266 | -21.91 | -9.84  | -4.73 | -2.34 | -1.27 |
| 265 | -22.48 | -10.14 | -4.84 | -2.45 | -1.31 |
| 264 | -22.95 | -10.40 | -4.98 | -2.58 | -1.39 |
| 263 | -23.43 | -10.57 | -5.05 | -2.66 | -1.45 |
| 262 | -23.79 | -10.70 | -5.16 | -2.68 | -1.44 |
| 261 | -24.03 | -10.78 | -5.25 | -2.74 | -1.44 |
| 260 | -24.16 | -10.80 | -5.25 | -2.74 | -1.50 |
| 259 | -24.16 | -10.84 | -5.26 | -2.77 | -1.47 |
| 258 | -24.05 | -10.87 | -5.21 | -2.78 | -1.48 |
| 257 | -23.99 | -10.83 | -5.15 | -2.73 | -1.45 |
| 256 | -23.84 | -10.74 | -5.12 | -2.65 | -1.44 |
| 255 | -23.60 | -10.56 | -5.05 | -2.61 | -1.40 |
| 254 | -23.19 | -10.34 | -4.97 | -2.55 | -1.37 |
| 253 | -22.71 | -10.12 | -4.86 | -2.52 | -1.29 |
| 252 | -22.20 | -9.93  | -4.80 | -2.53 | -1.34 |
| 251 | -21.69 | -9.67  | -4.69 | -2.52 | -1.30 |
| 250 | -21.15 | -9.44  | -4.62 | -2.44 | -1.34 |
| 249 | -20.51 | -9.16  | -4.54 | -2.32 | -1.34 |
| 248 | -19.72 | -8.85  | -4.37 | -2.20 | -1.29 |
| 247 | -18.90 | -8.49  | -4.18 | -2.10 | -1.17 |
| 246 | -18.03 | -8.09  | -4.00 | -2.03 | -1.12 |
| 245 | -17.09 | -7.71  | -3.72 | -1.95 | -1.06 |
| 244 | -16.22 | -7.32  | -3.52 | -1.88 | -1.01 |
| 243 | -15.29 | -6.94  | -3.33 | -1.77 | -0.95 |
| 242 | -14.28 | -6.49  | -3.06 | -1.65 | -0.91 |
| 241 | -13.25 | -6.00  | -2.88 | -1.49 | -0.84 |
| 240 | -12.17 | -5.48  | -2.68 | -1.34 | -0.79 |
| 239 | -11.03 | -4.94  | -2.42 | -1.22 | -0.70 |
| 238 | -9.89  | -4.40  | -2.18 | -1.09 | -0.60 |
| 237 | -8.70  | -3.82  | -1.89 | -1.00 | -0.54 |
| 236 | -7.44  | -3.25  | -1.61 | -0.82 | -0.45 |
| 235 | -6.11  | -2.64  | -1.29 | -0.60 | -0.38 |
| 234 | -4.81  | -2.09  | -0.99 | -0.48 | -0.34 |
| 233 | -3.52  | -1.52  | -0.73 | -0.38 | -0.25 |
| 232 | -2.29  | -0.96  | -0.46 | -0.20 | -0.18 |
| 231 | -1.16  | -0.43  | -0.24 | -0.12 | -0.15 |
| 230 | -0.08  | 0.05   | -0.09 | 0.07  | -0.02 |
| 229 | 0.77   | 0.41   | 0.09  | 0.18  | 0.08  |
| 228 | 1.50   | 0.76   | 0.29  | 0.24  | 0.15  |
| 227 | 2.13   | 1.02   | 0.45  | 0.30  | 0.13  |
| 226 | 2.63   | 1.29   | 0.60  | 0.35  | 0.13  |
| 225 | 3.00   | 1.44   | 0.67  | 0.39  | 0.12  |
| 224 | 3.29   | 1.54   | 0.72  | 0.42  | 0.13  |
| 223 | 3.36   | 1.55   | 0.71  | 0.43  | 0.13  |
| 222 | 3.40   | 1.61   | 0.64  | 0.40  | 0.14  |
| 221 | 3.48   | 1.60   | 0.58  | 0.42  | 0.15  |
| 220 | 3.41   | 1.61   | 0.58  | 0.39  | 0.18  |
| 219 | 3.25   | 1.56   | 0.58  | 0.38  | 0.15  |
| 218 | 3.03   | 1.52   | 0.64  | 0.32  | 0.08  |
| 217 | 2.63   | 1.31   | 0.67  | 0.35  | 0.03  |
| 216 | 2.21   | 1.14   | 0.53  | 0.35  | 0.03  |
| 215 | 1.76   | 0.88   | 0.41  | 0.31  | 0.05  |
| 214 | 1.24   | 0.62   | 0.30  | 0.26  | 0.07  |
| 213 | 0.63   | 0.36   | 0.14  | 0.18  | 0.06  |

|     |        |       |       |       |       |
|-----|--------|-------|-------|-------|-------|
| 212 | -0.01  | 0.12  | 0.00  | 0.06  | 0.01  |
| 211 | -0.84  | -0.30 | -0.19 | -0.06 | -0.03 |
| 210 | -1.63  | -0.67 | -0.43 | -0.13 | -0.10 |
| 209 | -2.36  | -1.02 | -0.60 | -0.25 | -0.15 |
| 208 | -3.15  | -1.38 | -0.74 | -0.37 | -0.20 |
| 207 | -3.95  | -1.79 | -0.90 | -0.46 | -0.25 |
| 206 | -4.78  | -2.17 | -1.03 | -0.61 | -0.36 |
| 205 | -5.54  | -2.52 | -1.14 | -0.66 | -0.39 |
| 204 | -6.24  | -2.87 | -1.29 | -0.71 | -0.42 |
| 203 | -6.96  | -3.21 | -1.50 | -0.79 | -0.46 |
| 202 | -7.68  | -3.51 | -1.64 | -0.86 | -0.47 |
| 201 | -8.31  | -3.83 | -1.78 | -0.90 | -0.49 |
| 200 | -8.96  | -4.08 | -1.93 | -1.01 | -0.48 |
| 199 | -9.55  | -4.36 | -2.09 | -1.10 | -0.52 |
| 198 | -10.03 | -4.58 | -2.24 | -1.22 | -0.51 |
| 197 | -10.50 | -4.75 | -2.29 | -1.25 | -0.54 |
| 196 | -10.80 | -4.86 | -2.30 | -1.27 | -0.56 |
| 195 | -11.02 | -4.94 | -2.35 | -1.22 | -0.57 |
| 194 | -11.12 | -4.97 | -2.43 | -1.21 | -0.58 |
| 193 | -11.15 | -5.01 | -2.54 | -1.21 | -0.62 |
| 192 | -11.07 | -4.98 | -2.55 | -1.24 | -0.65 |
| 191 | -11.00 | -4.94 | -2.51 | -1.19 | -0.75 |
| 190 | -10.83 | -4.89 | -2.45 | -1.16 | -0.75 |
| 189 | -10.64 | -4.82 | -2.40 | -1.11 | -0.71 |
| 188 | -10.25 | -4.68 | -2.33 | -1.09 | -0.68 |
| 187 | -9.73  | -4.49 | -2.18 | -1.01 | -0.60 |
| 186 | -9.21  | -4.32 | -2.10 | -1.05 | -0.63 |
| 185 | -8.61  | -3.96 | -1.74 | -1.00 | -0.63 |
| 184 | -7.85  | -3.54 | -1.62 | -0.87 | -0.59 |
| 183 | -7.46  | -3.35 | -1.00 | -0.73 | -0.59 |
| 182 | -6.68  | -3.26 | -1.74 | -0.25 | -0.90 |

Figure 3(b): Absorption spectra.

| WL/nm | Full concentration | 1/2 conc. | 1/4 conc. | 1/8 conc. | 1/16 conc. |
|-------|--------------------|-----------|-----------|-----------|------------|
| 540   | 0.052              | 0.022     | 0.015     | 0.010     | 0.008      |
| 539   | 0.053              | 0.022     | 0.015     | 0.010     | 0.008      |
| 538   | 0.052              | 0.022     | 0.016     | 0.010     | 0.008      |
| 537   | 0.053              | 0.022     | 0.015     | 0.010     | 0.008      |
| 536   | 0.053              | 0.022     | 0.015     | 0.010     | 0.008      |
| 535   | 0.053              | 0.022     | 0.016     | 0.010     | 0.008      |
| 534   | 0.053              | 0.022     | 0.015     | 0.010     | 0.008      |
| 533   | 0.054              | 0.023     | 0.015     | 0.010     | 0.008      |
| 532   | 0.054              | 0.023     | 0.015     | 0.010     | 0.008      |
| 531   | 0.055              | 0.023     | 0.016     | 0.010     | 0.008      |
| 530   | 0.055              | 0.023     | 0.016     | 0.010     | 0.008      |
| 529   | 0.056              | 0.023     | 0.016     | 0.011     | 0.008      |
| 528   | 0.057              | 0.024     | 0.016     | 0.011     | 0.008      |
| 527   | 0.057              | 0.024     | 0.017     | 0.011     | 0.008      |
| 526   | 0.058              | 0.025     | 0.017     | 0.011     | 0.008      |
| 525   | 0.059              | 0.025     | 0.017     | 0.011     | 0.008      |
| 524   | 0.060              | 0.025     | 0.017     | 0.011     | 0.008      |
| 523   | 0.061              | 0.026     | 0.017     | 0.011     | 0.008      |
| 522   | 0.062              | 0.026     | 0.017     | 0.011     | 0.008      |
| 521   | 0.063              | 0.027     | 0.018     | 0.011     | 0.008      |
| 520   | 0.064              | 0.028     | 0.018     | 0.011     | 0.009      |
| 519   | 0.066              | 0.028     | 0.018     | 0.012     | 0.009      |
| 518   | 0.068              | 0.029     | 0.019     | 0.012     | 0.009      |
| 517   | 0.069              | 0.030     | 0.019     | 0.012     | 0.009      |
| 516   | 0.071              | 0.030     | 0.020     | 0.012     | 0.009      |
| 515   | 0.073              | 0.032     | 0.020     | 0.012     | 0.009      |
| 514   | 0.075              | 0.033     | 0.020     | 0.013     | 0.009      |
| 513   | 0.077              | 0.034     | 0.021     | 0.013     | 0.009      |
| 512   | 0.080              | 0.035     | 0.022     | 0.013     | 0.009      |
| 511   | 0.082              | 0.036     | 0.022     | 0.013     | 0.010      |
| 510   | 0.085              | 0.037     | 0.022     | 0.014     | 0.010      |
| 509   | 0.088              | 0.039     | 0.023     | 0.014     | 0.010      |
| 508   | 0.091              | 0.040     | 0.024     | 0.015     | 0.010      |
| 507   | 0.095              | 0.042     | 0.025     | 0.014     | 0.010      |
| 506   | 0.098              | 0.044     | 0.026     | 0.015     | 0.010      |
| 505   | 0.102              | 0.045     | 0.026     | 0.016     | 0.010      |
| 504   | 0.106              | 0.047     | 0.027     | 0.016     | 0.011      |
| 503   | 0.110              | 0.049     | 0.028     | 0.016     | 0.011      |
| 502   | 0.115              | 0.051     | 0.029     | 0.017     | 0.011      |
| 501   | 0.119              | 0.054     | 0.030     | 0.017     | 0.011      |
| 500   | 0.124              | 0.056     | 0.031     | 0.018     | 0.012      |
| 499   | 0.129              | 0.058     | 0.032     | 0.018     | 0.012      |
| 498   | 0.134              | 0.061     | 0.033     | 0.019     | 0.012      |
| 497   | 0.140              | 0.063     | 0.034     | 0.020     | 0.013      |
| 496   | 0.145              | 0.066     | 0.035     | 0.020     | 0.013      |
| 495   | 0.150              | 0.068     | 0.037     | 0.021     | 0.013      |
| 494   | 0.155              | 0.071     | 0.038     | 0.021     | 0.014      |
| 493   | 0.160              | 0.073     | 0.039     | 0.022     | 0.014      |
| 492   | 0.166              | 0.076     | 0.040     | 0.022     | 0.014      |
| 491   | 0.170              | 0.078     | 0.041     | 0.023     | 0.014      |
| 490   | 0.175              | 0.080     | 0.042     | 0.023     | 0.014      |
| 489   | 0.179              | 0.082     | 0.043     | 0.024     | 0.015      |
| 488   | 0.184              | 0.084     | 0.044     | 0.024     | 0.015      |
| 487   | 0.187              | 0.086     | 0.044     | 0.025     | 0.015      |
| 486   | 0.190              | 0.088     | 0.045     | 0.025     | 0.015      |
| 485   | 0.193              | 0.089     | 0.046     | 0.025     | 0.016      |
| 484   | 0.196              | 0.090     | 0.047     | 0.026     | 0.016      |
| 483   | 0.198              | 0.091     | 0.047     | 0.026     | 0.016      |
| 482   | 0.199              | 0.092     | 0.047     | 0.026     | 0.016      |
| 481   | 0.200              | 0.092     | 0.047     | 0.026     | 0.016      |
| 480   | 0.201              | 0.092     | 0.047     | 0.026     | 0.016      |

|     |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|
| 479 | 0.201 | 0.093 | 0.048 | 0.026 | 0.016 |
| 478 | 0.201 | 0.093 | 0.048 | 0.026 | 0.016 |
| 477 | 0.200 | 0.093 | 0.048 | 0.026 | 0.016 |
| 476 | 0.200 | 0.092 | 0.047 | 0.026 | 0.016 |
| 475 | 0.199 | 0.092 | 0.047 | 0.026 | 0.016 |
| 474 | 0.198 | 0.091 | 0.047 | 0.026 | 0.016 |
| 473 | 0.197 | 0.091 | 0.047 | 0.025 | 0.016 |
| 472 | 0.196 | 0.090 | 0.046 | 0.026 | 0.016 |
| 471 | 0.195 | 0.090 | 0.046 | 0.025 | 0.016 |
| 470 | 0.193 | 0.089 | 0.046 | 0.025 | 0.016 |
| 469 | 0.193 | 0.089 | 0.046 | 0.025 | 0.016 |
| 468 | 0.192 | 0.088 | 0.046 | 0.025 | 0.016 |
| 467 | 0.191 | 0.088 | 0.045 | 0.025 | 0.015 |
| 466 | 0.190 | 0.088 | 0.045 | 0.025 | 0.016 |
| 465 | 0.190 | 0.088 | 0.045 | 0.025 | 0.015 |
| 464 | 0.189 | 0.087 | 0.045 | 0.025 | 0.016 |
| 463 | 0.189 | 0.087 | 0.045 | 0.025 | 0.015 |
| 462 | 0.188 | 0.087 | 0.045 | 0.025 | 0.016 |
| 461 | 0.188 | 0.086 | 0.045 | 0.025 | 0.015 |
| 460 | 0.187 | 0.086 | 0.045 | 0.024 | 0.015 |
| 459 | 0.187 | 0.086 | 0.044 | 0.025 | 0.015 |
| 458 | 0.186 | 0.085 | 0.044 | 0.024 | 0.015 |
| 457 | 0.185 | 0.085 | 0.044 | 0.024 | 0.015 |
| 456 | 0.185 | 0.085 | 0.044 | 0.024 | 0.015 |
| 455 | 0.184 | 0.084 | 0.044 | 0.024 | 0.015 |
| 454 | 0.183 | 0.084 | 0.044 | 0.024 | 0.015 |
| 453 | 0.183 | 0.084 | 0.044 | 0.024 | 0.015 |
| 452 | 0.182 | 0.083 | 0.043 | 0.024 | 0.015 |
| 451 | 0.182 | 0.083 | 0.043 | 0.024 | 0.015 |
| 450 | 0.181 | 0.083 | 0.043 | 0.024 | 0.015 |
| 449 | 0.180 | 0.082 | 0.043 | 0.024 | 0.015 |
| 448 | 0.180 | 0.082 | 0.043 | 0.024 | 0.015 |
| 447 | 0.179 | 0.082 | 0.043 | 0.024 | 0.015 |
| 446 | 0.178 | 0.081 | 0.042 | 0.023 | 0.015 |
| 445 | 0.178 | 0.081 | 0.043 | 0.023 | 0.015 |
| 444 | 0.177 | 0.080 | 0.042 | 0.023 | 0.015 |
| 443 | 0.177 | 0.080 | 0.042 | 0.023 | 0.015 |
| 442 | 0.176 | 0.080 | 0.042 | 0.023 | 0.015 |
| 441 | 0.175 | 0.079 | 0.042 | 0.023 | 0.014 |
| 440 | 0.174 | 0.079 | 0.042 | 0.023 | 0.014 |
| 439 | 0.173 | 0.079 | 0.041 | 0.023 | 0.014 |
| 438 | 0.172 | 0.078 | 0.041 | 0.023 | 0.014 |
| 437 | 0.171 | 0.077 | 0.041 | 0.023 | 0.014 |
| 436 | 0.169 | 0.076 | 0.040 | 0.023 | 0.014 |
| 435 | 0.167 | 0.075 | 0.040 | 0.022 | 0.014 |
| 434 | 0.166 | 0.075 | 0.040 | 0.022 | 0.014 |
| 433 | 0.163 | 0.073 | 0.039 | 0.022 | 0.014 |
| 432 | 0.161 | 0.072 | 0.038 | 0.021 | 0.013 |
| 431 | 0.158 | 0.071 | 0.038 | 0.021 | 0.013 |
| 430 | 0.155 | 0.069 | 0.037 | 0.021 | 0.013 |
| 429 | 0.152 | 0.068 | 0.037 | 0.020 | 0.013 |
| 428 | 0.149 | 0.066 | 0.036 | 0.020 | 0.013 |
| 427 | 0.145 | 0.065 | 0.035 | 0.020 | 0.013 |
| 426 | 0.142 | 0.063 | 0.034 | 0.019 | 0.012 |
| 425 | 0.138 | 0.061 | 0.033 | 0.019 | 0.012 |
| 424 | 0.134 | 0.060 | 0.033 | 0.019 | 0.012 |
| 423 | 0.131 | 0.058 | 0.032 | 0.018 | 0.012 |
| 422 | 0.128 | 0.056 | 0.031 | 0.018 | 0.011 |
| 421 | 0.124 | 0.055 | 0.030 | 0.017 | 0.011 |
| 420 | 0.121 | 0.053 | 0.030 | 0.017 | 0.011 |
| 419 | 0.117 | 0.051 | 0.029 | 0.016 | 0.011 |
| 418 | 0.114 | 0.050 | 0.028 | 0.016 | 0.011 |
| 417 | 0.111 | 0.048 | 0.027 | 0.016 | 0.011 |
| 416 | 0.108 | 0.047 | 0.027 | 0.015 | 0.010 |
| 415 | 0.105 | 0.045 | 0.026 | 0.015 | 0.010 |
| 414 | 0.102 | 0.044 | 0.025 | 0.015 | 0.010 |
| 413 | 0.100 | 0.043 | 0.025 | 0.015 | 0.010 |
| 412 | 0.097 | 0.042 | 0.025 | 0.014 | 0.010 |
| 411 | 0.095 | 0.040 | 0.024 | 0.014 | 0.010 |
| 410 | 0.093 | 0.040 | 0.024 | 0.014 | 0.010 |
| 409 | 0.091 | 0.039 | 0.023 | 0.014 | 0.009 |
| 408 | 0.089 | 0.038 | 0.023 | 0.014 | 0.009 |
| 407 | 0.088 | 0.037 | 0.022 | 0.013 | 0.009 |
| 406 | 0.087 | 0.037 | 0.022 | 0.013 | 0.009 |
| 405 | 0.086 | 0.036 | 0.022 | 0.013 | 0.009 |
| 404 | 0.086 | 0.036 | 0.022 | 0.013 | 0.009 |
| 403 | 0.085 | 0.036 | 0.022 | 0.013 | 0.009 |
| 402 | 0.086 | 0.036 | 0.022 | 0.013 | 0.009 |
| 401 | 0.086 | 0.037 | 0.022 | 0.013 | 0.009 |
| 400 | 0.087 | 0.037 | 0.022 | 0.014 | 0.009 |
| 399 | 0.088 | 0.037 | 0.022 | 0.013 | 0.009 |
| 398 | 0.090 | 0.038 | 0.023 | 0.014 | 0.010 |
| 397 | 0.091 | 0.039 | 0.023 | 0.014 | 0.010 |
| 396 | 0.093 | 0.040 | 0.023 | 0.014 | 0.010 |
| 395 | 0.094 | 0.040 | 0.024 | 0.014 | 0.010 |
| 394 | 0.096 | 0.041 | 0.024 | 0.015 | 0.010 |
| 393 | 0.097 | 0.042 | 0.025 | 0.015 | 0.010 |
| 392 | 0.099 | 0.043 | 0.025 | 0.015 | 0.010 |
| 391 | 0.100 | 0.043 | 0.025 | 0.015 | 0.010 |
| 390 | 0.102 | 0.044 | 0.025 | 0.015 | 0.010 |
| 389 | 0.103 | 0.044 | 0.026 | 0.015 | 0.010 |
| 388 | 0.104 | 0.045 | 0.026 | 0.015 | 0.010 |
| 387 | 0.105 | 0.045 | 0.026 | 0.015 | 0.010 |
| 386 | 0.105 | 0.045 | 0.026 | 0.015 | 0.010 |
| 385 | 0.106 | 0.046 | 0.027 | 0.016 | 0.010 |
| 384 | 0.107 | 0.046 | 0.027 | 0.016 | 0.010 |
| 383 | 0.107 | 0.047 | 0.027 | 0.016 | 0.011 |
| 382 | 0.108 | 0.047 | 0.027 | 0.016 | 0.011 |
| 381 | 0.108 | 0.047 | 0.027 | 0.016 | 0.010 |

|     |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|
| 380 | 0.109 | 0.047 | 0.027 | 0.016 | 0.011 |
| 379 | 0.109 | 0.047 | 0.027 | 0.016 | 0.011 |
| 378 | 0.110 | 0.048 | 0.028 | 0.016 | 0.011 |
| 377 | 0.111 | 0.048 | 0.028 | 0.016 | 0.011 |
| 376 | 0.112 | 0.048 | 0.028 | 0.016 | 0.011 |
| 375 | 0.112 | 0.049 | 0.028 | 0.016 | 0.011 |
| 374 | 0.113 | 0.049 | 0.028 | 0.016 | 0.011 |
| 373 | 0.114 | 0.049 | 0.028 | 0.016 | 0.011 |
| 372 | 0.114 | 0.050 | 0.028 | 0.016 | 0.011 |
| 371 | 0.115 | 0.050 | 0.028 | 0.017 | 0.011 |
| 370 | 0.115 | 0.050 | 0.028 | 0.017 | 0.011 |
| 369 | 0.116 | 0.050 | 0.029 | 0.017 | 0.011 |
| 368 | 0.116 | 0.050 | 0.029 | 0.017 | 0.011 |
| 367 | 0.117 | 0.051 | 0.029 | 0.017 | 0.011 |
| 366 | 0.117 | 0.051 | 0.029 | 0.017 | 0.011 |
| 365 | 0.118 | 0.051 | 0.029 | 0.017 | 0.011 |
| 364 | 0.119 | 0.051 | 0.029 | 0.017 | 0.011 |
| 363 | 0.120 | 0.052 | 0.030 | 0.017 | 0.012 |
| 362 | 0.120 | 0.052 | 0.030 | 0.017 | 0.011 |
| 361 | 0.122 | 0.053 | 0.030 | 0.017 | 0.012 |
| 360 | 0.123 | 0.053 | 0.030 | 0.018 | 0.012 |
| 359 | 0.123 | 0.054 | 0.030 | 0.017 | 0.012 |
| 358 | 0.125 | 0.055 | 0.031 | 0.018 | 0.012 |
| 357 | 0.126 | 0.055 | 0.031 | 0.018 | 0.012 |
| 356 | 0.128 | 0.056 | 0.032 | 0.018 | 0.012 |
| 355 | 0.130 | 0.057 | 0.032 | 0.018 | 0.012 |
| 354 | 0.131 | 0.057 | 0.032 | 0.019 | 0.012 |
| 353 | 0.133 | 0.058 | 0.033 | 0.019 | 0.013 |
| 352 | 0.134 | 0.059 | 0.033 | 0.019 | 0.013 |
| 351 | 0.135 | 0.059 | 0.033 | 0.019 | 0.013 |
| 350 | 0.136 | 0.060 | 0.034 | 0.019 | 0.013 |
| 349 | 0.137 | 0.060 | 0.034 | 0.019 | 0.013 |
| 348 | 0.138 | 0.061 | 0.034 | 0.019 | 0.013 |
| 347 | 0.138 | 0.061 | 0.034 | 0.020 | 0.013 |
| 346 | 0.139 | 0.061 | 0.034 | 0.020 | 0.013 |
| 345 | 0.139 | 0.061 | 0.034 | 0.020 | 0.013 |
| 344 | 0.138 | 0.061 | 0.034 | 0.019 | 0.013 |
| 343 | 0.138 | 0.061 | 0.034 | 0.020 | 0.013 |
| 342 | 0.138 | 0.060 | 0.034 | 0.019 | 0.013 |
| 341 | 0.137 | 0.060 | 0.034 | 0.020 | 0.013 |
| 340 | 0.137 | 0.060 | 0.034 | 0.019 | 0.013 |
| 339 | 0.137 | 0.060 | 0.034 | 0.019 | 0.013 |
| 338 | 0.136 | 0.060 | 0.033 | 0.019 | 0.013 |
| 337 | 0.136 | 0.060 | 0.033 | 0.019 | 0.013 |
| 336 | 0.135 | 0.059 | 0.033 | 0.019 | 0.013 |
| 335 | 0.135 | 0.059 | 0.033 | 0.020 | 0.013 |
| 334 | 0.134 | 0.059 | 0.033 | 0.019 | 0.013 |
| 333 | 0.134 | 0.059 | 0.033 | 0.019 | 0.013 |
| 332 | 0.134 | 0.058 | 0.033 | 0.019 | 0.013 |
| 331 | 0.133 | 0.058 | 0.033 | 0.019 | 0.013 |
| 330 | 0.132 | 0.058 | 0.033 | 0.019 | 0.013 |
| 329 | 0.132 | 0.058 | 0.033 | 0.019 | 0.013 |
| 328 | 0.131 | 0.057 | 0.032 | 0.019 | 0.013 |
| 327 | 0.131 | 0.057 | 0.033 | 0.019 | 0.013 |
| 326 | 0.131 | 0.057 | 0.033 | 0.019 | 0.013 |
| 325 | 0.131 | 0.057 | 0.032 | 0.019 | 0.013 |
| 324 | 0.131 | 0.057 | 0.033 | 0.019 | 0.013 |
| 323 | 0.131 | 0.057 | 0.033 | 0.019 | 0.013 |
| 322 | 0.131 | 0.057 | 0.033 | 0.019 | 0.013 |
| 321 | 0.132 | 0.057 | 0.033 | 0.019 | 0.013 |
| 320 | 0.132 | 0.057 | 0.033 | 0.019 | 0.013 |
| 319 | 0.132 | 0.057 | 0.033 | 0.019 | 0.013 |
| 318 | 0.132 | 0.058 | 0.033 | 0.019 | 0.013 |
| 317 | 0.132 | 0.058 | 0.033 | 0.019 | 0.013 |
| 316 | 0.132 | 0.057 | 0.033 | 0.019 | 0.013 |
| 315 | 0.132 | 0.057 | 0.033 | 0.019 | 0.013 |
| 314 | 0.131 | 0.057 | 0.033 | 0.019 | 0.013 |
| 313 | 0.130 | 0.057 | 0.033 | 0.019 | 0.013 |
| 312 | 0.130 | 0.056 | 0.032 | 0.019 | 0.013 |
| 311 | 0.129 | 0.056 | 0.032 | 0.019 | 0.013 |
| 310 | 0.128 | 0.055 | 0.032 | 0.019 | 0.013 |
| 309 | 0.126 | 0.055 | 0.032 | 0.019 | 0.013 |
| 308 | 0.125 | 0.054 | 0.032 | 0.018 | 0.013 |
| 307 | 0.124 | 0.054 | 0.031 | 0.018 | 0.013 |
| 306 | 0.123 | 0.053 | 0.031 | 0.018 | 0.013 |
| 305 | 0.121 | 0.052 | 0.031 | 0.018 | 0.012 |
| 304 | 0.120 | 0.052 | 0.030 | 0.018 | 0.013 |
| 303 | 0.118 | 0.051 | 0.030 | 0.018 | 0.012 |
| 302 | 0.117 | 0.050 | 0.030 | 0.018 | 0.013 |
| 301 | 0.115 | 0.049 | 0.029 | 0.017 | 0.012 |
| 300 | 0.113 | 0.049 | 0.029 | 0.017 | 0.012 |
| 299 | 0.112 | 0.048 | 0.029 | 0.017 | 0.012 |
| 298 | 0.110 | 0.047 | 0.028 | 0.017 | 0.012 |
| 297 | 0.109 | 0.046 | 0.028 | 0.017 | 0.012 |
| 296 | 0.107 | 0.046 | 0.028 | 0.017 | 0.012 |
| 295 | 0.106 | 0.045 | 0.027 | 0.017 | 0.012 |
| 294 | 0.104 | 0.044 | 0.027 | 0.016 | 0.011 |
| 293 | 0.103 | 0.044 | 0.027 | 0.016 | 0.012 |
| 292 | 0.102 | 0.043 | 0.026 | 0.016 | 0.011 |
| 291 | 0.101 | 0.043 | 0.026 | 0.016 | 0.011 |
| 290 | 0.100 | 0.042 | 0.026 | 0.016 | 0.012 |
| 289 | 0.098 | 0.041 | 0.026 | 0.016 | 0.011 |
| 288 | 0.097 | 0.041 | 0.025 | 0.016 | 0.011 |
| 287 | 0.097 | 0.041 | 0.025 | 0.015 | 0.011 |
| 286 | 0.096 | 0.040 | 0.025 | 0.015 | 0.011 |
| 285 | 0.095 | 0.040 | 0.025 | 0.015 | 0.011 |
| 284 | 0.094 | 0.039 | 0.025 | 0.015 | 0.011 |
| 283 | 0.094 | 0.039 | 0.024 | 0.015 | 0.011 |
| 282 | 0.094 | 0.039 | 0.024 | 0.015 | 0.011 |

|     |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|
| 281 | 0.094 | 0.039 | 0.024 | 0.015 | 0.011 |
| 280 | 0.094 | 0.039 | 0.024 | 0.015 | 0.011 |
| 279 | 0.094 | 0.039 | 0.024 | 0.015 | 0.011 |
| 278 | 0.095 | 0.040 | 0.025 | 0.015 | 0.011 |
| 277 | 0.096 | 0.040 | 0.025 | 0.015 | 0.011 |
| 276 | 0.098 | 0.041 | 0.025 | 0.015 | 0.011 |
| 275 | 0.100 | 0.042 | 0.026 | 0.016 | 0.011 |
| 274 | 0.102 | 0.043 | 0.026 | 0.016 | 0.011 |
| 273 | 0.104 | 0.044 | 0.027 | 0.016 | 0.012 |
| 272 | 0.107 | 0.045 | 0.027 | 0.016 | 0.012 |
| 271 | 0.109 | 0.046 | 0.028 | 0.017 | 0.012 |
| 270 | 0.111 | 0.047 | 0.028 | 0.017 | 0.012 |
| 269 | 0.114 | 0.048 | 0.029 | 0.017 | 0.012 |
| 268 | 0.116 | 0.049 | 0.029 | 0.017 | 0.012 |
| 267 | 0.118 | 0.050 | 0.030 | 0.018 | 0.012 |
| 266 | 0.120 | 0.051 | 0.030 | 0.018 | 0.012 |
| 265 | 0.122 | 0.052 | 0.031 | 0.018 | 0.012 |
| 264 | 0.124 | 0.053 | 0.031 | 0.018 | 0.013 |
| 263 | 0.126 | 0.053 | 0.031 | 0.018 | 0.013 |
| 262 | 0.127 | 0.054 | 0.032 | 0.019 | 0.013 |
| 261 | 0.128 | 0.055 | 0.032 | 0.019 | 0.013 |
| 260 | 0.130 | 0.056 | 0.032 | 0.019 | 0.013 |
| 259 | 0.131 | 0.056 | 0.033 | 0.019 | 0.013 |
| 258 | 0.132 | 0.057 | 0.033 | 0.019 | 0.013 |
| 257 | 0.133 | 0.057 | 0.033 | 0.019 | 0.013 |
| 256 | 0.133 | 0.057 | 0.033 | 0.019 | 0.013 |
| 255 | 0.134 | 0.057 | 0.033 | 0.019 | 0.013 |
| 254 | 0.134 | 0.058 | 0.033 | 0.019 | 0.013 |
| 253 | 0.134 | 0.058 | 0.033 | 0.019 | 0.013 |
| 252 | 0.134 | 0.058 | 0.033 | 0.019 | 0.013 |
| 251 | 0.135 | 0.058 | 0.033 | 0.019 | 0.013 |
| 250 | 0.135 | 0.058 | 0.034 | 0.019 | 0.013 |
| 249 | 0.134 | 0.058 | 0.034 | 0.019 | 0.013 |
| 248 | 0.134 | 0.057 | 0.033 | 0.019 | 0.013 |
| 247 | 0.134 | 0.057 | 0.033 | 0.019 | 0.013 |
| 246 | 0.133 | 0.057 | 0.033 | 0.019 | 0.013 |
| 245 | 0.132 | 0.057 | 0.033 | 0.019 | 0.013 |
| 244 | 0.132 | 0.057 | 0.033 | 0.019 | 0.013 |
| 243 | 0.132 | 0.056 | 0.033 | 0.019 | 0.013 |
| 242 | 0.132 | 0.056 | 0.033 | 0.019 | 0.013 |
| 241 | 0.131 | 0.056 | 0.033 | 0.019 | 0.013 |
| 240 | 0.131 | 0.056 | 0.033 | 0.019 | 0.013 |
| 239 | 0.131 | 0.056 | 0.033 | 0.019 | 0.013 |
| 238 | 0.130 | 0.056 | 0.033 | 0.019 | 0.013 |
| 237 | 0.130 | 0.056 | 0.033 | 0.019 | 0.013 |
| 236 | 0.130 | 0.056 | 0.032 | 0.019 | 0.012 |
| 235 | 0.130 | 0.056 | 0.032 | 0.019 | 0.013 |
| 234 | 0.129 | 0.055 | 0.032 | 0.019 | 0.013 |
| 233 | 0.129 | 0.055 | 0.032 | 0.019 | 0.012 |
| 232 | 0.128 | 0.055 | 0.032 | 0.019 | 0.013 |
| 231 | 0.128 | 0.055 | 0.032 | 0.019 | 0.013 |
| 230 | 0.127 | 0.054 | 0.031 | 0.018 | 0.012 |
| 229 | 0.126 | 0.054 | 0.032 | 0.018 | 0.012 |
| 228 | 0.125 | 0.054 | 0.031 | 0.018 | 0.012 |
| 227 | 0.124 | 0.053 | 0.031 | 0.018 | 0.012 |
| 226 | 0.123 | 0.053 | 0.031 | 0.018 | 0.012 |
| 225 | 0.122 | 0.052 | 0.031 | 0.018 | 0.012 |
| 224 | 0.121 | 0.052 | 0.031 | 0.018 | 0.012 |
| 223 | 0.120 | 0.051 | 0.030 | 0.018 | 0.012 |
| 222 | 0.119 | 0.051 | 0.030 | 0.018 | 0.012 |
| 221 | 0.118 | 0.050 | 0.030 | 0.018 | 0.012 |
| 220 | 0.117 | 0.050 | 0.030 | 0.018 | 0.012 |
| 219 | 0.116 | 0.049 | 0.030 | 0.018 | 0.012 |
| 218 | 0.115 | 0.049 | 0.029 | 0.018 | 0.012 |
| 217 | 0.115 | 0.049 | 0.029 | 0.018 | 0.012 |
| 216 | 0.114 | 0.049 | 0.029 | 0.018 | 0.012 |
| 215 | 0.115 | 0.049 | 0.029 | 0.018 | 0.012 |
| 214 | 0.115 | 0.049 | 0.030 | 0.018 | 0.012 |
| 213 | 0.116 | 0.050 | 0.030 | 0.018 | 0.012 |
| 212 | 0.118 | 0.050 | 0.030 | 0.018 | 0.013 |
| 211 | 0.119 | 0.051 | 0.031 | 0.019 | 0.013 |
| 210 | 0.122 | 0.053 | 0.031 | 0.019 | 0.013 |
| 209 | 0.125 | 0.054 | 0.032 | 0.019 | 0.013 |
| 208 | 0.128 | 0.055 | 0.032 | 0.020 | 0.014 |
| 207 | 0.132 | 0.057 | 0.034 | 0.020 | 0.014 |
| 206 | 0.135 | 0.059 | 0.034 | 0.020 | 0.014 |
| 205 | 0.140 | 0.061 | 0.035 | 0.021 | 0.014 |
| 204 | 0.144 | 0.063 | 0.036 | 0.022 | 0.015 |
| 203 | 0.147 | 0.065 | 0.037 | 0.022 | 0.015 |
| 202 | 0.151 | 0.066 | 0.038 | 0.022 | 0.015 |
| 201 | 0.154 | 0.068 | 0.038 | 0.023 | 0.015 |
| 200 | 0.157 | 0.069 | 0.039 | 0.023 | 0.015 |
| 199 | 0.159 | 0.070 | 0.039 | 0.024 | 0.015 |
| 198 | 0.162 | 0.072 | 0.041 | 0.024 | 0.016 |
| 197 | 0.164 | 0.073 | 0.041 | 0.024 | 0.016 |
| 196 | 0.166 | 0.073 | 0.041 | 0.024 | 0.016 |
| 195 | 0.167 | 0.074 | 0.042 | 0.025 | 0.016 |
| 194 | 0.167 | 0.074 | 0.042 | 0.025 | 0.016 |
| 193 | 0.167 | 0.074 | 0.042 | 0.025 | 0.016 |
| 192 | 0.166 | 0.074 | 0.042 | 0.025 | 0.016 |
| 191 | 0.164 | 0.073 | 0.041 | 0.024 | 0.016 |
| 190 | 0.161 | 0.071 | 0.040 | 0.023 | 0.015 |

Figure 4: Chlb in methanol-water (1:1) measured at temperatures ranging from 10°C to 85°C.

Figure 4(a): CD spectra (mdeg).

| WL/nm | 24.2C   | 10.3C   | 19.6C   | 28.9C   | 38.2C   | 47.4C   | 56.7C  | 66C    | 75.3C  | 84.5C | 24.2C |
|-------|---------|---------|---------|---------|---------|---------|--------|--------|--------|-------|-------|
| 550   | 0.55    | 0.91    | 0.55    | 0.71    | 0.48    | 0.69    | 0.16   | -0.03  | -0.03  | 0.08  | -0.15 |
| 549   | 0.54    | 0.89    | 0.69    | 0.74    | 0.64    | 0.66    | 0.20   | 0.31   | 0.06   | 0.14  | -0.08 |
| 548   | 0.70    | 1.04    | 1.01    | 0.60    | 0.81    | 0.53    | 0.38   | 0.49   | 0.05   | 0.21  | -0.05 |
| 547   | 0.75    | 1.22    | 1.32    | 0.67    | 0.93    | 0.75    | 0.46   | 0.49   | 0.18   | 0.15  | -0.13 |
| 546   | 0.89    | 1.58    | 1.47    | 0.89    | 0.75    | 0.98    | 0.80   | 0.34   | 0.12   | 0.03  | -0.40 |
| 545   | 1.37    | 1.85    | 1.64    | 1.46    | 0.96    | 1.18    | 1.09   | 0.03   | -0.01  | -0.10 | -0.45 |
| 544   | 1.68    | 2.04    | 1.84    | 1.88    | 1.37    | 1.35    | 1.17   | 0.01   | -0.03  | -0.05 | -0.33 |
| 543   | 1.90    | 2.32    | 2.22    | 2.09    | 1.57    | 1.66    | 1.05   | 0.26   | 0.04   | 0.09  | -0.25 |
| 542   | 2.35    | 2.73    | 2.64    | 2.19    | 2.00    | 1.93    | 1.04   | 0.36   | -0.04  | 0.04  | -0.06 |
| 541   | 2.75    | 3.08    | 3.21    | 2.60    | 2.32    | 2.29    | 1.08   | 0.54   | -0.02  | 0.08  | 0.08  |
| 540   | 2.93    | 3.55    | 3.55    | 3.06    | 2.53    | 2.65    | 1.23   | 0.74   | 0.14   | 0.01  | -0.16 |
| 539   | 3.33    | 3.89    | 3.85    | 3.52    | 2.82    | 2.92    | 1.62   | 0.69   | 0.19   | -0.19 | -0.12 |
| 538   | 3.60    | 4.28    | 4.19    | 3.88    | 3.11    | 3.05    | 1.86   | 0.89   | 0.25   | -0.01 | -0.17 |
| 537   | 3.80    | 4.63    | 4.55    | 4.15    | 3.22    | 3.11    | 2.11   | 1.02   | 0.39   | -0.01 | -0.30 |
| 536   | 4.26    | 5.15    | 4.89    | 4.24    | 3.60    | 3.24    | 2.41   | 0.99   | 0.34   | -0.02 | -0.18 |
| 535   | 4.56    | 5.39    | 5.27    | 4.48    | 3.77    | 3.49    | 2.56   | 1.01   | 0.26   | 0.01  | -0.20 |
| 534   | 4.88    | 5.79    | 5.46    | 4.72    | 4.09    | 3.87    | 2.76   | 0.93   | 0.38   | -0.11 | -0.20 |
| 533   | 5.26    | 6.10    | 5.82    | 5.07    | 4.32    | 4.16    | 2.99   | 0.98   | 0.56   | -0.14 | -0.12 |
| 532   | 5.41    | 6.36    | 6.04    | 5.34    | 4.59    | 4.32    | 3.04   | 1.16   | 0.63   | 0.11  | -0.08 |
| 531   | 5.40    | 6.44    | 6.13    | 5.63    | 4.68    | 4.34    | 3.21   | 1.23   | 0.62   | 0.25  | -0.10 |
| 530   | 5.33    | 6.55    | 6.30    | 5.87    | 4.89    | 4.45    | 3.19   | 1.40   | 0.46   | 0.25  | 0.05  |
| 529   | 5.37    | 6.54    | 6.31    | 6.04    | 4.98    | 4.48    | 3.08   | 1.47   | 0.32   | 0.17  | 0.02  |
| 528   | 5.51    | 6.62    | 6.35    | 6.08    | 5.04    | 4.67    | 3.14   | 1.44   | 0.30   | 0.00  | 0.16  |
| 527   | 5.37    | 6.51    | 6.35    | 5.91    | 4.92    | 4.57    | 3.15   | 1.32   | 0.35   | -0.13 | 0.10  |
| 526   | 5.11    | 6.27    | 6.23    | 5.72    | 4.73    | 4.52    | 3.12   | 1.30   | 0.46   | -0.01 | 0.10  |
| 525   | 4.87    | 5.87    | 5.98    | 5.48    | 4.42    | 4.48    | 3.12   | 1.21   | 0.42   | 0.14  | 0.05  |
| 524   | 4.33    | 5.30    | 5.69    | 5.25    | 4.12    | 4.25    | 2.95   | 1.15   | 0.40   | -0.08 | 0.02  |
| 523   | 3.91    | 4.80    | 5.10    | 4.85    | 3.94    | 3.81    | 2.78   | 1.12   | 0.42   | -0.12 | -0.17 |
| 522   | 3.45    | 4.18    | 4.40    | 4.19    | 3.60    | 3.53    | 2.54   | 1.02   | 0.39   | -0.17 | -0.28 |
| 521   | 2.64    | 3.42    | 3.58    | 3.38    | 3.15    | 3.07    | 2.24   | 0.82   | 0.35   | -0.21 | -0.22 |
| 520   | 1.62    | 2.46    | 2.56    | 2.38    | 2.45    | 2.49    | 1.68   | 0.93   | 0.33   | -0.16 | -0.09 |
| 519   | 0.59    | 1.12    | 1.34    | 1.29    | 1.56    | 1.76    | 1.01   | 0.62   | 0.13   | -0.04 | -0.05 |
| 518   | -0.77   | -0.57   | 0.00    | 0.07    | 0.57    | 0.90    | 0.39   | 0.22   | -0.06  | -0.04 | 0.15  |
| 517   | -2.53   | -2.56   | -1.80   | -1.52   | -0.67   | -0.34   | -0.35  | -0.40  | -0.24  | 0.04  | 0.06  |
| 516   | -4.57   | -4.91   | -4.05   | -3.38   | -2.16   | -1.64   | -1.28  | -0.81  | -0.41  | 0.00  | -0.03 |
| 515   | -6.99   | -7.59   | -6.78   | -5.50   | -3.88   | -3.25   | -2.40  | -1.00  | -0.56  | -0.17 | -0.03 |
| 514   | -9.80   | -10.79  | -10.04  | -8.14   | -5.93   | -5.23   | -3.90  | -1.55  | -0.57  | -0.35 | -0.08 |
| 513   | -12.94  | -14.52  | -13.66  | -11.12  | -8.32   | -7.60   | -5.51  | -2.19  | -0.68  | -0.36 | -0.20 |
| 512   | -16.62  | -18.77  | -17.66  | -14.71  | -11.12  | -10.35  | -7.45  | -2.81  | -0.92  | -0.40 | -0.24 |
| 511   | -21.02  | -23.68  | -22.23  | -18.81  | -14.43  | -13.46  | -9.68  | -3.73  | -1.17  | -0.38 | -0.23 |
| 510   | -26.00  | -29.36  | -27.68  | -23.53  | -18.31  | -16.94  | -12.19 | -4.80  | -1.54  | -0.49 | -0.33 |
| 509   | -31.62  | -35.78  | -33.87  | -28.87  | -22.71  | -20.92  | -15.00 | -5.97  | -1.99  | -0.64 | -0.34 |
| 508   | -37.97  | -43.18  | -41.13  | -35.08  | -27.62  | -25.49  | -18.26 | -7.34  | -2.48  | -0.70 | -0.49 |
| 507   | -44.96  | -51.35  | -49.27  | -41.98  | -33.14  | -30.76  | -21.95 | -8.91  | -3.00  | -0.77 | -0.51 |
| 506   | -52.89  | -60.16  | -58.08  | -49.55  | -39.39  | -36.65  | -26.14 | -10.56 | -3.50  | -0.92 | -0.53 |
| 505   | -61.55  | -70.03  | -67.72  | -57.99  | -46.21  | -43.06  | -30.87 | -12.50 | -4.09  | -1.09 | -0.49 |
| 504   | -70.96  | -80.75  | -78.24  | -67.17  | -53.61  | -49.96  | -35.90 | -14.53 | -4.74  | -1.28 | -0.55 |
| 503   | -81.10  | -92.29  | -89.33  | -77.02  | -61.55  | -57.43  | -41.35 | -16.52 | -5.45  | -1.38 | -0.60 |
| 502   | -91.83  | -104.55 | -101.37 | -87.62  | -69.88  | -65.36  | -47.02 | -18.79 | -6.23  | -1.46 | -0.77 |
| 501   | -102.82 | -117.28 | -113.79 | -98.37  | -78.44  | -73.75  | -53.05 | -21.18 | -6.94  | -1.47 | -0.79 |
| 500   | -114.22 | -130.25 | -126.57 | -109.34 | -87.39  | -82.38  | -59.13 | -23.65 | -7.62  | -1.60 | -0.86 |
| 499   | -125.44 | -143.32 | -139.39 | -120.68 | -96.46  | -90.99  | -65.23 | -25.96 | -8.32  | -1.67 | -0.79 |
| 498   | -136.61 | -156.07 | -152.00 | -131.77 | -105.47 | -99.52  | -71.15 | -28.23 | -9.05  | -1.81 | -0.72 |
| 497   | -147.23 | -168.13 | -164.06 | -142.56 | -114.18 | -107.52 | -76.77 | -30.25 | -9.68  | -1.89 | -0.67 |
| 496   | -157.06 | -179.01 | -175.02 | -152.42 | -122.18 | -114.89 | -81.72 | -32.14 | -10.24 | -2.13 | -0.69 |
| 495   | -165.46 | -188.33 | -184.32 | -160.82 | -129.05 | -121.35 | -86.12 | -33.78 | -10.70 | -2.18 | -0.68 |
| 494   | -172.24 | -195.79 | -191.83 | -167.53 | -134.59 | -126.55 | -89.60 | -35.08 | -10.94 | -2.26 | -0.73 |
| 493   | -176.91 | -200.83 | -197.20 | -172.33 | -138.52 | -130.40 | -91.99 | -35.74 | -11.04 | -2.21 | -0.69 |
| 492   | -179.22 | -203.21 | -199.86 | -174.81 | -140.53 | -132.47 | -93.28 | -35.99 | -11.05 | -2.16 | -0.70 |
| 491   | -178.90 | -202.68 | -199.75 | -174.97 | -140.59 | -132.55 | -93.17 | -35.62 | -10.93 | -2.02 | -0.72 |
| 490   | -176.16 | -199.22 | -196.65 | -172.63 | -138.73 | -130.84 | -91.66 | -34.88 | -10.70 | -1.99 | -0.63 |
| 489   | -170.96 | -193.09 | -190.87 | -167.88 | -135.09 | -127.31 | -89.03 | -33.72 | -10.27 | -1.78 | -0.63 |
| 488   | -163.73 | -184.61 | -182.54 | -160.94 | -129.79 | -122.10 | -85.20 | -32.23 | -9.66  | -1.63 | -0.62 |
| 487   | -154.93 | -174.11 | -172.51 | -152.21 | -122.96 | -115.69 | -80.40 | -30.27 | -8.94  | -1.46 | -0.58 |
| 486   | -144.65 | -162.10 | -160.78 | -142.22 | -114.88 | -108.08 | -75.07 | -28.17 | -8.25  | -1.34 | -0.44 |
| 485   | -133.40 | -149.18 | -148.26 | -131.36 | -106.08 | -99.79  | -69.15 | -25.88 | -7.54  | -1.27 | -0.33 |
| 484   | -121.65 | -135.87 | -135.17 | -120.03 | -96.89  | -91.16  | -63.10 | -23.56 | -6.88  | -1.09 | -0.24 |
| 483   | -109.79 | -122.54 | -122.17 | -108.55 | -87.78  | -82.59  | -57.17 | -21.39 | -6.24  | -1.03 | -0.34 |
| 482   | -98.32  | -109.73 | -109.44 | -97.50  | -78.95  | -74.17  | -51.24 | -19.16 | -5.59  | -0.91 | -0.34 |
| 481   | -87.75  | -97.78  | -97.74  | -86.97  | -70.55  | -66.36  | -45.74 | -16.99 | -4.95  | -0.74 | -0.33 |
| 480   | -78.20  | -87.08  | -87.11  | -77.56  | -62.91  | -59.22  | -40.78 | -15.16 | -4.35  | -0.66 | -0.23 |
| 479   | -69.83  | -77.65  | -77.78  | -69.19  | -56.16  | -52.86  | -36.34 | -13.52 | -3.76  | -0.53 | -0.18 |
| 478   | -62.48  | -69.58  | -69.65  | -61.84  | -50.18  | -47.17  | -32.55 | -12.10 | -3.36  | -0.37 | -0.13 |
| 477   | -56.13  | -62.58  | -62.76  | -55.55  | -45.10  | -42.44  | -29.25 | -11.02 | -3.04  | -0.43 | -0.14 |
| 476   | -50.83  | -56.85  | -56.94  | -50.39  | -40.83  | -38.47  | -26.45 | -10.04 | -2.89  | -0.39 | -0.06 |
| 475   | -46.49  | -52.17  | -52.20  | -46.16  | -37.36  | -35.24  | -24.22 | -9.14  | -2.76  | -0.44 | -0.05 |
| 474   | -42.97  | -48.42  | -48.31  | -42.71  | -34.58  | -32.53  | -22.29 | -8.41  | -2.50  | -0.45 | 0.00  |
| 473   | -40.16  | -45.48  | -45.18  | -39.96  | -32.30  | -30.42  | -20.89 | -7.81  | -2.33  | -0.39 | 0.05  |
| 472   | -38.11  | -43.21  | -42.87  | -37.77  | -30.53  | -28.59  | -19.71 | -7.37  | -2.17  | -0.32 | 0.05  |
| 471   | -36.48  | -41.46  | -41.14  | -36.12  | -29.13  | -27.30  | -18.74 | -7.10  | -2.05  | -0.28 | 0.01  |
| 470   | -35.29  | -40.17  | -39.82  | -34.91  | -28.07  | -26.31  | -17.95 | -6.86  | -2.05  | -0.24 | 0.04  |
| 469   | -34.37  | -39.33  | -38.83  | -34.08  | -27.36  | -25.57  | -17.39 | -6.64  | -2.02  | -0.32 | 0.00  |
| 468   | -33.71  | -38.66  | -38.06  | -33.36  | -26.72  | -24.92  | -17.02 | -6.49  | -1.94  | -0.38 | 0.00  |
| 467   | -33.12  | -38.19  | -37.49  | -32.82  | -26.15  | -24.45  | -16.79 | -6.35  | -1.93  | -0.40 | -0.03 |
| 466   | -32.83  | -37.83  | -37.06  | -32.43  | -25.83  | -24.07  | -16.53 | -6.25  | -1.82  | -0.33 | -0.07 |
| 465   | -32.60  | -37.57  | -36.84  | -32.11  | -25.57  | -23.84  | -16.35 | -6.16  | -1.77  | -0.27 | -0.05 |
| 464   | -32.35  | -37.48  | -36.69  | -31.95  | -25.51  | -23.72  | -16.23 | -6.09  | -1.81  | -0.28 | -0.13 |
| 463   | -32.09  | -37.49  | -36.54  | -31.69  | -25.41  | -23.59  | -16.16 | -6.04  | -1.76  | -0.29 | -0.19 |
| 462   | -31.94  | -37.40  | -36.37  | -31.47  | -25.19  | -23.43  | -16.15 | -6.02  | -1.79  | -0.29 | -0.19 |
| 461   | -31.72  | -37.30  | -36.11  | -31.33  | -24.97  | -23.26  | -16.02 | -6.05  | -1.84  | -0.29 | -0.21 |
| 460   | -31.53  | -37.03  | -35.85  | -31.14  | -24.74  | -23.12  | -15.81 | -5.99  | -1.81  | -0.25 | -0.16 |
| 459   | -31.46  | -36.70  | -35.57  | -30.84  | -24.54  | -22.88  | -15.59 | -5.95  | -1.74  | -0.22 | -0.08 |

|     |        |        |        |        |        |        |        |       |       |       |       |
|-----|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 458 | -31.24 | -36.33 | -35.25 | -30.63 | -24.44 | -22.73 | -15.41 | -5.84 | -1.75 | -0.21 | -0.07 |
| 457 | -30.93 | -35.92 | -34.81 | -30.28 | -24.16 | -22.41 | -15.25 | -5.71 | -1.71 | -0.20 | -0.10 |
| 456 | -30.56 | -35.48 | -34.25 | -29.88 | -23.85 | -22.10 | -15.16 | -5.63 | -1.71 | -0.22 | -0.05 |
| 455 | -30.03 | -34.99 | -33.66 | -29.40 | -23.47 | -21.71 | -14.95 | -5.51 | -1.66 | -0.20 | -0.13 |
| 454 | -29.38 | -34.34 | -33.15 | -28.92 | -23.00 | -21.34 | -14.68 | -5.47 | -1.62 | -0.20 | -0.16 |
| 453 | -28.70 | -33.63 | -32.45 | -28.27 | -22.59 | -20.89 | -14.38 | -5.41 | -1.56 | -0.26 | -0.09 |
| 452 | -28.06 | -32.85 | -31.78 | -27.63 | -22.16 | -20.48 | -14.06 | -5.38 | -1.62 | -0.29 | -0.03 |
| 451 | -27.30 | -32.01 | -30.97 | -26.80 | -21.55 | -19.98 | -13.71 | -5.31 | -1.55 | -0.24 | 0.00  |
| 450 | -26.53 | -31.15 | -30.12 | -26.02 | -20.95 | -19.46 | -13.39 | -5.16 | -1.50 | -0.21 | 0.02  |
| 449 | -25.79 | -30.16 | -29.14 | -25.20 | -20.28 | -18.90 | -13.00 | -5.01 | -1.44 | -0.22 | -0.09 |
| 448 | -24.88 | -29.05 | -28.18 | -24.40 | -19.53 | -18.31 | -12.57 | -4.79 | -1.38 | -0.19 | -0.14 |
| 447 | -23.87 | -27.95 | -27.12 | -23.54 | -18.88 | -17.65 | -12.16 | -4.57 | -1.42 | -0.26 | -0.13 |
| 446 | -22.87 | -26.76 | -26.03 | -22.56 | -18.10 | -16.90 | -11.63 | -4.45 | -1.40 | -0.32 | -0.10 |
| 445 | -21.71 | -25.58 | -24.90 | -21.43 | -17.21 | -16.11 | -11.00 | -4.26 | -1.28 | -0.29 | -0.06 |
| 444 | -20.50 | -24.32 | -23.72 | -20.42 | -16.40 | -15.28 | -10.43 | -4.04 | -1.22 | -0.24 | 0.01  |
| 443 | -19.31 | -22.95 | -22.36 | -19.35 | -15.48 | -14.44 | -9.87  | -3.78 | -1.10 | -0.22 | 0.05  |
| 442 | -18.09 | -21.59 | -20.99 | -18.14 | -14.55 | -13.56 | -9.26  | -3.42 | -1.02 | -0.15 | 0.01  |
| 441 | -16.85 | -20.18 | -19.60 | -16.92 | -13.60 | -12.56 | -8.66  | -3.13 | -1.04 | -0.16 | -0.09 |
| 440 | -15.54 | -18.65 | -18.10 | -15.62 | -12.54 | -11.57 | -8.01  | -2.96 | -0.91 | -0.13 | -0.16 |
| 439 | -14.19 | -17.18 | -16.63 | -14.31 | -11.45 | -10.57 | -7.31  | -2.74 | -0.82 | -0.14 | -0.15 |
| 438 | -12.99 | -15.72 | -15.10 | -13.08 | -10.50 | -9.61  | -6.74  | -2.58 | -0.77 | -0.13 | -0.05 |
| 437 | -11.74 | -14.28 | -13.68 | -11.91 | -9.56  | -8.72  | -6.20  | -2.36 | -0.61 | -0.08 | 0.00  |
| 436 | -10.56 | -12.93 | -12.37 | -10.78 | -8.71  | -7.96  | -5.56  | -2.12 | -0.58 | -0.08 | 0.05  |
| 435 | -9.50  | -11.65 | -11.18 | -9.69  | -7.90  | -7.20  | -4.95  | -1.92 | -0.54 | -0.09 | 0.01  |
| 434 | -8.50  | -10.53 | -10.08 | -8.75  | -7.10  | -6.56  | -4.53  | -1.70 | -0.49 | -0.07 | -0.06 |
| 433 | -7.65  | -9.53  | -9.15  | -7.88  | -6.36  | -5.86  | -4.12  | -1.50 | -0.41 | -0.05 | -0.07 |
| 432 | -7.09  | -8.78  | -8.39  | -7.23  | -5.81  | -5.26  | -3.79  | -1.39 | -0.41 | -0.07 | -0.08 |
| 431 | -6.65  | -8.21  | -7.83  | -6.80  | -5.40  | -4.88  | -3.55  | -1.28 | -0.29 | -0.02 | -0.09 |
| 430 | -6.33  | -7.89  | -7.47  | -6.55  | -5.16  | -4.72  | -3.42  | -1.24 | -0.30 | -0.04 | -0.04 |
| 429 | -6.12  | -7.70  | -7.21  | -6.36  | -5.08  | -4.65  | -3.33  | -1.27 | -0.30 | -0.02 | 0.02  |
| 428 | -6.05  | -7.62  | -7.20  | -6.38  | -5.03  | -4.70  | -3.32  | -1.26 | -0.31 | -0.05 | 0.05  |
| 427 | -6.08  | -7.68  | -7.34  | -6.43  | -5.07  | -4.80  | -3.33  | -1.30 | -0.36 | -0.05 | 0.02  |
| 426 | -6.20  | -7.77  | -7.51  | -6.53  | -5.12  | -4.86  | -3.31  | -1.29 | -0.41 | -0.05 | -0.01 |
| 425 | -6.40  | -7.92  | -7.67  | -6.67  | -5.29  | -5.03  | -3.35  | -1.28 | -0.36 | -0.05 | -0.01 |
| 424 | -6.63  | -8.15  | -7.87  | -6.85  | -5.46  | -5.22  | -3.55  | -1.36 | -0.42 | -0.08 | -0.01 |
| 423 | -6.88  | -8.40  | -7.99  | -7.01  | -5.76  | -5.34  | -3.72  | -1.47 | -0.40 | -0.11 | 0.03  |
| 422 | -7.20  | -8.65  | -8.30  | -7.25  | -5.99  | -5.50  | -3.88  | -1.55 | -0.39 | -0.15 | -0.01 |
| 421 | -7.45  | -8.97  | -8.52  | -7.48  | -6.21  | -5.66  | -4.01  | -1.55 | -0.42 | -0.16 | -0.03 |
| 420 | -7.73  | -9.22  | -8.83  | -7.69  | -6.37  | -5.79  | -4.13  | -1.55 | -0.50 | -0.16 | -0.04 |
| 419 | -7.97  | -9.45  | -9.09  | -7.92  | -6.51  | -5.97  | -4.21  | -1.61 | -0.53 | -0.18 | 0.00  |
| 418 | -8.14  | -9.59  | -9.31  | -8.12  | -6.61  | -6.20  | -4.31  | -1.71 | -0.60 | -0.24 | -0.03 |
| 417 | -8.26  | -9.75  | -9.47  | -8.24  | -6.80  | -6.37  | -4.38  | -1.81 | -0.60 | -0.24 | -0.01 |
| 416 | -8.38  | -9.92  | -9.63  | -8.40  | -6.87  | -6.53  | -4.47  | -1.80 | -0.63 | -0.22 | -0.02 |
| 415 | -8.51  | -10.14 | -9.80  | -8.57  | -7.03  | -6.61  | -4.54  | -1.79 | -0.60 | -0.16 | -0.03 |
| 414 | -8.73  | -10.33 | -9.99  | -8.67  | -7.20  | -6.68  | -4.62  | -1.72 | -0.57 | -0.12 | -0.02 |
| 413 | -8.96  | -10.53 | -10.16 | -8.83  | -7.25  | -6.75  | -4.72  | -1.76 | -0.48 | -0.09 | -0.03 |
| 412 | -9.23  | -10.71 | -10.31 | -8.98  | -7.36  | -6.87  | -4.79  | -1.79 | -0.50 | -0.15 | -0.05 |
| 411 | -9.47  | -10.89 | -10.47 | -9.08  | -7.55  | -7.07  | -4.88  | -1.86 | -0.54 | -0.16 | -0.04 |
| 410 | -9.60  | -11.12 | -10.63 | -9.28  | -7.63  | -7.19  | -4.97  | -1.91 | -0.62 | -0.12 | 0.02  |
| 409 | -9.76  | -11.41 | -10.96 | -9.49  | -7.82  | -7.38  | -5.07  | -1.94 | -0.65 | -0.08 | 0.04  |
| 408 | -9.98  | -11.71 | -11.24 | -9.76  | -8.03  | -7.51  | -5.17  | -2.00 | -0.65 | -0.07 | 0.02  |
| 407 | -10.29 | -12.00 | -11.57 | -10.06 | -8.25  | -7.68  | -5.35  | -2.11 | -0.62 | -0.08 | -0.05 |
| 406 | -10.74 | -12.43 | -11.98 | -10.45 | -8.57  | -7.97  | -5.54  | -2.20 | -0.69 | -0.12 | -0.04 |
| 405 | -11.24 | -12.90 | -12.46 | -10.86 | -8.98  | -8.33  | -5.81  | -2.31 | -0.72 | -0.16 | -0.09 |
| 404 | -11.79 | -13.56 | -13.03 | -11.36 | -9.36  | -8.76  | -6.08  | -2.48 | -0.82 | -0.12 | -0.07 |
| 403 | -12.46 | -14.35 | -13.73 | -11.96 | -9.85  | -9.29  | -6.43  | -2.57 | -0.91 | -0.16 | -0.05 |
| 402 | -13.13 | -15.20 | -14.49 | -12.63 | -10.36 | -9.77  | -6.72  | -2.69 | -0.99 | -0.18 | -0.07 |
| 401 | -13.87 | -16.08 | -15.33 | -13.33 | -10.93 | -10.26 | -7.05  | -2.83 | -0.97 | -0.25 | -0.08 |
| 400 | -14.78 | -17.15 | -16.31 | -14.17 | -11.63 | -10.93 | -7.45  | -3.05 | -1.01 | -0.27 | -0.05 |
| 399 | -15.69 | -18.19 | -17.31 | -15.05 | -12.37 | -11.53 | -7.92  | -3.25 | -0.99 | -0.27 | -0.03 |
| 398 | -16.67 | -19.32 | -18.37 | -15.96 | -13.05 | -12.22 | -8.39  | -3.45 | -1.09 | -0.24 | -0.03 |
| 397 | -17.65 | -20.45 | -19.46 | -16.88 | -13.84 | -12.89 | -8.92  | -3.59 | -1.15 | -0.26 | 0.02  |
| 396 | -18.63 | -21.59 | -20.61 | -17.84 | -14.60 | -13.63 | -9.40  | -3.77 | -1.26 | -0.30 | -0.09 |
| 395 | -19.59 | -22.74 | -21.70 | -18.74 | -15.34 | -14.31 | -9.89  | -3.86 | -1.31 | -0.37 | -0.10 |
| 394 | -20.51 | -23.83 | -22.68 | -19.64 | -16.07 | -14.96 | -10.34 | -3.97 | -1.37 | -0.36 | -0.10 |
| 393 | -21.31 | -24.76 | -23.52 | -20.44 | -16.70 | -15.48 | -10.72 | -4.06 | -1.38 | -0.34 | -0.08 |
| 392 | -21.98 | -25.53 | -24.25 | -21.09 | -17.17 | -15.95 | -11.06 | -4.17 | -1.46 | -0.31 | -0.09 |
| 391 | -22.45 | -26.17 | -24.85 | -21.56 | -17.67 | -16.32 | -11.31 | -4.26 | -1.48 | -0.27 | -0.09 |
| 390 | -22.81 | -26.61 | -25.36 | -21.94 | -17.99 | -16.66 | -11.49 | -4.36 | -1.47 | -0.24 | -0.13 |
| 389 | -23.12 | -26.91 | -25.66 | -22.20 | -18.27 | -16.96 | -11.59 | -4.34 | -1.45 | -0.29 | -0.10 |
| 388 | -23.31 | -27.12 | -25.88 | -22.43 | -18.50 | -17.20 | -11.68 | -4.35 | -1.45 | -0.32 | -0.09 |
| 387 | -23.54 | -27.32 | -26.05 | -22.67 | -18.65 | -17.35 | -11.78 | -4.41 | -1.46 | -0.32 | -0.14 |
| 386 | -23.77 | -27.48 | -26.22 | -22.82 | -18.75 | -17.48 | -11.86 | -4.53 | -1.49 | -0.33 | -0.13 |
| 385 | -23.95 | -27.70 | -26.40 | -23.00 | -18.91 | -17.52 | -11.99 | -4.55 | -1.50 | -0.29 | -0.14 |
| 384 | -24.14 | -27.90 | -26.65 | -23.17 | -19.05 | -17.62 | -12.13 | -4.58 | -1.50 | -0.27 | -0.11 |
| 383 | -24.38 | -28.11 | -26.84 | -23.32 | -19.19 | -17.73 | -12.21 | -4.59 | -1.48 | -0.31 | -0.09 |
| 382 | -24.54 | -28.36 | -27.10 | -23.55 | -19.38 | -17.95 | -12.29 | -4.63 | -1.48 | -0.32 | -0.09 |
| 381 | -24.82 | -28.69 | -27.44 | -23.85 | -19.56 | -18.16 | -12.40 | -4.68 | -1.49 | -0.31 | -0.09 |
| 380 | -25.15 | -29.09 | -27.84 | -24.10 | -19.78 | -18.41 | -12.57 | -4.80 | -1.51 | -0.33 | -0.10 |
| 379 | -25.45 | -29.48 | -28.21 | -24.42 | -20.06 | -18.63 | -12.78 | -4.81 | -1.51 | -0.35 | -0.15 |
| 378 | -25.78 | -29.96 | -28.60 | -24.75 | -20.39 | -18.89 | -12.97 | -4.90 | -1.54 | -0.37 | -0.18 |
| 377 | -26.16 | -30.43 | -28.92 | -25.10 | -20.70 | -19.11 | -13.14 | -4.98 | -1.58 | -0.35 | -0.20 |
| 376 | -26.51 | -30.83 | -29.25 | -25.47 | -20.97 | -19.38 | -13.26 | -5.04 | -1.61 | -0.34 | -0.16 |
| 375 | -26.87 | -31.23 | -29.66 | -25.86 | -21.21 | -19.63 | -13.31 | -5.09 | -1.64 | -0.35 | -0.12 |
| 374 | -27.24 | -31.58 | -30.04 | -26.15 | -21.41 | -19.86 | -13.45 | -5.12 | -1.64 | -0.36 | -0.09 |
| 373 | -27.50 | -31.87 | -30.36 | -26.40 | -21.60 | -20.07 | -13.50 | -5.12 | -1.61 | -0.40 | -0.11 |
| 372 | -27.69 | -32.13 | -30.61 | -26.60 | -21.84 | -20.27 | -13.59 | -5.19 | -1.66 | -0.38 | -0.14 |
| 371 | -27.90 | -32.30 | -30.81 | -26.76 | -22.02 | -20.43 | -13.68 | -5.20 | -1.62 | -0.30 | -0.12 |
| 370 | -28.13 | -32.55 | -31.03 | -26.93 | -22.16 | -20.60 | -13.88 | -5.22 | -1.60 | -0.27 | -0.10 |
| 369 | -28.32 | -32.83 | -31.26 | -27.12 | -22.29 | -20.69 | -13.94 | -5.21 | -1.55 | -0.26 | -0.07 |
| 368 | -28.58 | -33.15 | -31.55 | -27.34 | -22.50 | -20.77 | -14.07 | -5.24 | -1.55 | -0.30 | -0.10 |
| 367 | -28.82 | -33.51 | -31.87 | -27.61 | -22.69 | -20.93 | -14.13 | -5.30 | -1.56 | -0.36 | -0.10 |
| 366 | -29.11 | -33.88 | -32.21 | -27.90 | -22.99 | -21.18 | -14.29 | -5.40 | -1.63 | -0.36 | -0.13 |
| 365 | -29.45 | -34.28 | -32.61 | -28.25 | -23.22 | -21.41 | -14.44 | -5.46 | -1.64 | -0.36 | -0.18 |
| 364 | -29.86 | -34.81 | -33.03 | -28.61 | -23.48 | -21.72 | -14.65 | -5.51 | -1.69 | -0.36 | -0.23 |
| 363 | -30.35 | -35.40 | -33.50 | -29.06 | -23.80 | -22.02 | -14.81 | -5.54 | -1.73 | -0.35 | -0.20 |
| 362 | -30.83 | -36.07 | -34.11 | -29.53 | -24.19 | -22.32 | -14.97 | -5.60 | -1.82 | -0.35 | -0.21 |
| 361 | -31.40 | -36.75 | -34.75 | -30.04 | -24.59 | -22.70 | -15.20 | -5.66 | -1.85 | -0.34 | -0.16 |
| 360 | -32.02 | -37.51 | -35.47 | -30.63 | -25.07 | -23.12 | -15.46 | -5.75 | -1.82 | -0.30 | -0.15 |



|     |        |        |        |        |        |        |        |       |       |       |       |
|-----|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 359 | -32.62 | -38.25 | -36.17 | -31.24 | -25.58 | -23.52 | -15.73 | -5.79 | -1.76 | -0.31 | -0.16 |
| 358 | -33.28 | -38.98 | -36.88 | -31.84 | -26.08 | -23.96 | -15.99 | -5.87 | -1.80 | -0.37 | -0.18 |
| 357 | -33.92 | -39.65 | -37.52 | -32.36 | -26.52 | -24.32 | -16.22 | -5.89 | -1.83 | -0.38 | -0.13 |
| 356 | -34.44 | -40.31 | -38.12 | -32.85 | -26.90 | -24.72 | -16.44 | -6.01 | -1.88 | -0.41 | -0.15 |
| 355 | -34.81 | -40.84 | -38.57 | -33.17 | -27.22 | -24.99 | -16.62 | -6.06 | -1.88 | -0.38 | -0.10 |
| 354 | -35.08 | -41.23 | -38.91 | -33.43 | -27.43 | -25.18 | -16.79 | -6.18 | -1.86 | -0.38 | -0.08 |
| 353 | -35.19 | -41.36 | -39.09 | -33.57 | -27.53 | -25.23 | -16.90 | -6.25 | -1.79 | -0.37 | -0.08 |
| 352 | -35.05 | -41.20 | -39.03 | -33.54 | -27.45 | -25.21 | -16.82 | -6.23 | -1.79 | -0.35 | -0.04 |
| 351 | -34.79 | -40.86 | -38.69 | -33.28 | -27.20 | -25.03 | -16.66 | -6.12 | -1.78 | -0.30 | -0.01 |
| 350 | -34.32 | -40.35 | -38.17 | -32.86 | -26.88 | -24.79 | -16.44 | -6.03 | -1.79 | -0.28 | -0.05 |
| 349 | -33.67 | -39.68 | -37.45 | -32.26 | -26.49 | -24.38 | -16.17 | -5.85 | -1.74 | -0.28 | -0.04 |
| 348 | -32.91 | -38.81 | -36.59 | -31.52 | -25.94 | -23.88 | -15.85 | -5.77 | -1.70 | -0.30 | -0.08 |
| 347 | -32.07 | -37.70 | -35.65 | -30.67 | -25.28 | -23.25 | -15.48 | -5.67 | -1.67 | -0.30 | -0.09 |
| 346 | -31.05 | -36.53 | -34.56 | -29.75 | -24.59 | -22.62 | -15.02 | -5.55 | -1.66 | -0.28 | -0.08 |
| 345 | -30.05 | -35.30 | -33.40 | -28.79 | -23.81 | -21.93 | -14.58 | -5.39 | -1.66 | -0.28 | -0.10 |
| 344 | -29.10 | -34.10 | -32.30 | -27.84 | -23.03 | -21.27 | -14.18 | -5.29 | -1.67 | -0.27 | -0.07 |
| 343 | -28.17 | -32.98 | -31.18 | -27.00 | -22.29 | -20.64 | -13.80 | -5.04 | -1.60 | -0.29 | 0.00  |
| 342 | -27.30 | -31.94 | -30.16 | -26.17 | -21.58 | -20.06 | -13.41 | -4.89 | -1.51 | -0.27 | 0.01  |
| 341 | -26.53 | -30.96 | -29.30 | -25.43 | -20.96 | -19.54 | -13.08 | -4.77 | -1.48 | -0.29 | -0.01 |
| 340 | -25.77 | -30.13 | -28.55 | -24.75 | -20.41 | -18.99 | -12.74 | -4.67 | -1.40 | -0.24 | -0.04 |
| 339 | -25.08 | -29.37 | -27.87 | -24.07 | -19.91 | -18.53 | -12.42 | -4.60 | -1.36 | -0.28 | -0.11 |
| 338 | -24.49 | -28.69 | -27.24 | -23.43 | -19.44 | -18.05 | -12.15 | -4.53 | -1.39 | -0.29 | -0.13 |
| 337 | -23.94 | -28.11 | -26.60 | -22.90 | -19.01 | -17.61 | -11.85 | -4.38 | -1.35 | -0.29 | -0.11 |
| 336 | -23.43 | -27.57 | -26.04 | -22.42 | -18.65 | -17.26 | -11.57 | -4.27 | -1.32 | -0.30 | -0.11 |
| 335 | -22.93 | -27.07 | -25.55 | -22.03 | -18.25 | -16.96 | -11.39 | -4.18 | -1.32 | -0.28 | -0.10 |
| 334 | -22.46 | -26.58 | -25.13 | -21.66 | -17.89 | -16.66 | -11.20 | -4.08 | -1.25 | -0.24 | -0.09 |
| 333 | -22.07 | -26.12 | -24.68 | -21.29 | -17.53 | -16.40 | -11.04 | -3.99 | -1.18 | -0.22 | -0.08 |
| 332 | -21.77 | -25.69 | -24.35 | -20.93 | -17.27 | -16.13 | -10.91 | -3.95 | -1.19 | -0.23 | -0.05 |
| 331 | -21.51 | -25.34 | -24.00 | -20.67 | -17.10 | -15.88 | -10.78 | -3.94 | -1.11 | -0.20 | 0.01  |
| 330 | -21.34 | -25.12 | -23.75 | -20.47 | -17.03 | -15.76 | -10.63 | -3.91 | -1.13 | -0.21 | 0.03  |
| 329 | -21.27 | -25.09 | -23.61 | -20.40 | -16.98 | -15.71 | -10.57 | -3.88 | -1.14 | -0.19 | 0.04  |
| 328 | -21.27 | -25.08 | -23.61 | -20.38 | -17.00 | -15.72 | -10.56 | -3.83 | -1.20 | -0.20 | 0.00  |
| 327 | -21.39 | -25.24 | -23.72 | -20.48 | -17.01 | -15.75 | -10.62 | -3.82 | -1.26 | -0.24 | -0.04 |
| 326 | -21.51 | -25.38 | -23.87 | -20.60 | -17.03 | -15.78 | -10.58 | -3.86 | -1.26 | -0.27 | -0.05 |
| 325 | -21.62 | -25.53 | -24.04 | -20.77 | -17.12 | -15.83 | -10.62 | -3.88 | -1.22 | -0.33 | -0.10 |
| 324 | -21.68 | -25.67 | -24.13 | -20.84 | -17.18 | -15.86 | -10.57 | -3.92 | -1.21 | -0.31 | -0.15 |
| 323 | -21.69 | -25.77 | -24.20 | -20.89 | -17.23 | -15.89 | -10.58 | -3.88 | -1.18 | -0.32 | -0.15 |
| 322 | -21.61 | -25.66 | -24.19 | -20.76 | -17.22 | -15.88 | -10.56 | -3.84 | -1.21 | -0.31 | -0.13 |
| 321 | -21.46 | -25.52 | -24.05 | -20.59 | -17.05 | -15.72 | -10.50 | -3.75 | -1.19 | -0.29 | -0.07 |
| 320 | -21.17 | -25.17 | -23.72 | -20.31 | -16.77 | -15.49 | -10.31 | -3.71 | -1.13 | -0.29 | -0.03 |
| 319 | -20.72 | -24.67 | -23.23 | -19.89 | -16.36 | -15.16 | -10.03 | -3.59 | -1.07 | -0.27 | -0.03 |
| 318 | -20.08 | -24.01 | -22.52 | -19.32 | -15.84 | -14.68 | -9.68  | -3.44 | -1.02 | -0.20 | 0.01  |
| 317 | -19.28 | -23.13 | -21.64 | -18.58 | -15.24 | -14.13 | -9.27  | -3.25 | -0.95 | -0.16 | 0.02  |
| 316 | -18.34 | -22.05 | -20.65 | -17.63 | -14.55 | -13.45 | -8.76  | -3.08 | -0.89 | -0.10 | 0.01  |
| 315 | -17.42 | -20.86 | -19.53 | -16.64 | -13.80 | -12.65 | -8.24  | -2.86 | -0.85 | -0.04 | 0.04  |
| 314 | -16.33 | -19.53 | -18.34 | -15.57 | -12.98 | -11.81 | -7.67  | -2.69 | -0.79 | -0.08 | 0.04  |
| 313 | -15.15 | -18.12 | -17.07 | -14.51 | -12.09 | -10.90 | -7.09  | -2.47 | -0.73 | -0.04 | 0.03  |
| 312 | -13.98 | -16.74 | -15.73 | -13.46 | -11.19 | -10.01 | -6.52  | -2.25 | -0.66 | -0.10 | 0.04  |
| 311 | -12.78 | -15.38 | -14.43 | -12.37 | -10.28 | -9.22  | -5.92  | -2.03 | -0.59 | -0.10 | 0.00  |
| 310 | -11.59 | -14.06 | -13.17 | -11.25 | -9.37  | -8.41  | -5.35  | -1.82 | -0.51 | -0.08 | 0.02  |
| 309 | -10.51 | -12.79 | -11.94 | -10.20 | -8.50  | -7.69  | -4.83  | -1.58 | -0.44 | -0.02 | 0.04  |
| 308 | -9.42  | -11.55 | -10.81 | -9.17  | -7.70  | -6.97  | -4.33  | -1.39 | -0.38 | -0.06 | 0.03  |
| 307 | -8.48  | -10.37 | -9.74  | -8.26  | -6.92  | -6.19  | -3.88  | -1.20 | -0.31 | -0.04 | 0.08  |
| 306 | -7.59  | -9.32  | -8.70  | -7.44  | -6.23  | -5.49  | -3.42  | -1.10 | -0.28 | -0.08 | 0.08  |
| 305 | -6.71  | -8.31  | -7.73  | -6.64  | -5.51  | -4.87  | -3.00  | -0.91 | -0.22 | -0.03 | 0.09  |
| 304 | -6.00  | -7.45  | -6.92  | -5.92  | -4.92  | -4.36  | -2.65  | -0.77 | -0.20 | 0.00  | 0.09  |
| 303 | -5.30  | -6.65  | -6.15  | -5.22  | -4.33  | -3.77  | -2.33  | -0.63 | -0.18 | 0.06  | 0.03  |
| 302 | -4.69  | -5.90  | -5.49  | -4.57  | -3.79  | -3.24  | -2.02  | -0.51 | -0.16 | 0.03  | -0.02 |
| 301 | -4.18  | -5.29  | -4.88  | -3.99  | -3.33  | -2.79  | -1.74  | -0.47 | -0.12 | 0.00  | -0.01 |
| 300 | -3.65  | -4.69  | -4.30  | -3.56  | -2.95  | -2.46  | -1.47  | -0.49 | -0.13 | -0.04 | 0.02  |
| 299 | -3.19  | -4.11  | -3.79  | -3.18  | -2.63  | -2.20  | -1.26  | -0.40 | -0.09 | 0.00  | 0.06  |
| 298 | -2.81  | -3.63  | -3.37  | -2.86  | -2.37  | -2.03  | -1.08  | -0.30 | -0.05 | 0.01  | 0.15  |
| 297 | -2.52  | -3.25  | -3.00  | -2.56  | -2.15  | -1.76  | -0.93  | -0.19 | -0.04 | 0.05  | 0.13  |
| 296 | -2.33  | -3.00  | -2.78  | -2.37  | -2.00  | -1.62  | -0.87  | -0.17 | -0.05 | 0.03  | 0.06  |
| 295 | -2.21  | -2.91  | -2.64  | -2.21  | -1.90  | -1.54  | -0.89  | -0.23 | -0.03 | -0.02 | 0.03  |
| 294 | -2.19  | -2.89  | -2.62  | -2.20  | -1.86  | -1.49  | -0.91  | -0.31 | -0.05 | -0.04 | 0.04  |
| 293 | -2.20  | -2.91  | -2.72  | -2.22  | -1.83  | -1.47  | -0.94  | -0.32 | -0.05 | 0.00  | 0.02  |
| 292 | -2.24  | -3.02  | -2.84  | -2.33  | -1.84  | -1.56  | -1.01  | -0.32 | -0.08 | -0.03 | 0.02  |
| 291 | -2.39  | -3.15  | -2.94  | -2.42  | -1.93  | -1.66  | -1.01  | -0.30 | -0.12 | -0.03 | 0.01  |
| 290 | -2.57  | -3.35  | -3.08  | -2.54  | -2.09  | -1.79  | -1.05  | -0.33 | -0.16 | -0.04 | -0.02 |
| 289 | -2.79  | -3.59  | -3.34  | -2.69  | -2.29  | -1.89  | -1.18  | -0.41 | -0.22 | -0.08 | 0.02  |
| 288 | -3.09  | -3.90  | -3.61  | -2.92  | -2.52  | -2.06  | -1.32  | -0.48 | -0.29 | -0.09 | 0.08  |
| 287 | -3.35  | -4.25  | -3.93  | -3.18  | -2.72  | -2.31  | -1.50  | -0.47 | -0.25 | -0.06 | 0.05  |
| 286 | -3.65  | -4.68  | -4.27  | -3.53  | -2.95  | -2.59  | -1.71  | -0.51 | -0.19 | -0.04 | 0.03  |
| 285 | -4.05  | -5.17  | -4.71  | -3.92  | -3.25  | -2.97  | -1.91  | -0.60 | -0.17 | -0.03 | 0.00  |
| 284 | -4.56  | -5.73  | -5.20  | -4.37  | -3.67  | -3.32  | -2.11  | -0.73 | -0.13 | 0.00  | -0.04 |
| 283 | -5.12  | -6.32  | -5.82  | -4.88  | -4.10  | -3.72  | -2.33  | -0.86 | -0.21 | 0.03  | -0.03 |
| 282 | -5.79  | -7.02  | -6.48  | -5.53  | -4.56  | -4.19  | -2.62  | -0.96 | -0.28 | 0.02  | 0.02  |
| 281 | -6.54  | -7.84  | -7.21  | -6.18  | -5.13  | -4.74  | -2.99  | -1.07 | -0.34 | -0.03 | -0.01 |
| 280 | -7.34  | -8.83  | -8.10  | -6.97  | -5.73  | -5.29  | -3.42  | -1.22 | -0.41 | -0.09 | 0.00  |
| 279 | -8.26  | -9.98  | -9.15  | -7.83  | -6.42  | -5.97  | -3.91  | -1.40 | -0.47 | -0.11 | -0.03 |
| 278 | -9.26  | -11.18 | -10.24 | -8.76  | -7.20  | -6.65  | -4.31  | -1.58 | -0.47 | -0.12 | -0.07 |
| 277 | -10.39 | -12.48 | -11.46 | -9.77  | -8.06  | -7.45  | -4.79  | -1.76 | -0.53 | -0.15 | -0.12 |
| 276 | -11.60 | -13.84 | -12.74 | -10.92 | -8.95  | -8.27  | -5.35  | -1.97 | -0.57 | -0.18 | -0.10 |
| 275 | -12.88 | -15.28 | -14.04 | -12.02 | -9.93  | -9.16  | -5.95  | -2.19 | -0.67 | -0.18 | -0.07 |
| 274 | -14.13 | -16.77 | -15.46 | -13.20 | -10.91 | -10.06 | -6.55  | -2.36 | -0.76 | -0.17 | -0.04 |
| 273 | -15.37 | -18.27 | -16.85 | -14.39 | -11.84 | -10.97 | -7.10  | -2.56 | -0.79 | -0.12 | 0.01  |
| 272 | -16.57 | -19.67 | -18.18 | -15.50 | -12.75 | -11.83 | -7.53  | -2.68 | -0.83 | -0.13 | 0.00  |
| 271 | -17.67 | -21.03 | -19.44 | -16.54 | -13.67 | -12.57 | -8.04  | -2.86 | -0.85 | -0.16 | -0.03 |
| 270 | -18.68 | -22.28 | -20.62 | -17.45 | -14.51 | -13.26 | -8.50  | -3.05 | -0.86 | -0.14 | -0.05 |
| 269 | -19.64 | -23.42 | -21.63 | -18.27 | -15.29 | -13.94 | -8.94  | -3.20 | -0.89 | -0.10 | -0.01 |
| 268 | -20.47 | -24.43 | -22.55 | -19.05 | -15.93 | -14.51 | -9.31  | -3.29 | -0.94 | -0.05 | -0.02 |
| 267 | -21.20 | -25.37 | -23.37 | -19.79 | -16.49 | -15.07 | -9.65  | -3.35 | -1.00 | -0.05 | -0.01 |
| 266 | -21.91 | -26.20 | -24.07 | -20.45 | -16.98 | -15.54 | -9.88  | -3.40 | -0.99 | -0.04 | -0.03 |
| 265 | -22.48 | -26.95 | -24.73 | -21.03 | -17.41 | -15.90 | -10.17 | -3.51 | -0.96 | -0.09 | -0.02 |
| 264 | -22.95 | -27.63 | -25.38 | -21.50 | -17.84 | -16.32 | -10.47 | -3.66 | -0.96 | -0.14 | -0.07 |
| 263 | -23.43 | -28.13 | -25.88 | -21.91 | -18.22 | -16.76 | -10.68 | -3.79 | -0.98 | -0.12 | -0.08 |
| 262 | -23.79 | -28.59 | -26.26 | -22.27 | -18.43 | -17.03 | -10.84 | -3.85 | -1.04 | -0.09 | -0.12 |
| 261 | -24.03 | -28.87 | -26.58 | -22.50 | -18.66 | -17.25 | -10.96 | -3.85 | -1.09 | -0.09 | -0.11 |

|     |        |        |        |        |        |        |        |       |       |       |       |
|-----|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 260 | -24.16 | -29.03 | -26.73 | -22.65 | -18.78 | -17.29 | -10.95 | -3.82 | -1.07 | -0.02 | -0.05 |
| 259 | -24.16 | -29.09 | -26.78 | -22.69 | -18.82 | -17.26 | -10.92 | -3.81 | -1.06 | -0.08 | -0.05 |
| 258 | -24.05 | -28.98 | -26.71 | -22.64 | -18.79 | -17.17 | -10.90 | -3.77 | -1.05 | -0.11 | -0.04 |
| 257 | -23.99 | -28.79 | -26.50 | -22.53 | -18.68 | -17.07 | -10.80 | -3.76 | -1.03 | -0.07 | -0.07 |
| 256 | -23.84 | -28.59 | -26.27 | -22.34 | -18.44 | -16.88 | -10.73 | -3.71 | -1.03 | -0.08 | -0.10 |
| 255 | -23.60 | -28.20 | -25.96 | -22.02 | -18.17 | -16.67 | -10.64 | -3.66 | -0.97 | -0.06 | -0.03 |
| 254 | -23.19 | -27.78 | -25.60 | -21.63 | -17.88 | -16.40 | -10.49 | -3.54 | -0.96 | -0.05 | 0.02  |
| 253 | -22.71 | -27.31 | -25.14 | -21.18 | -17.55 | -16.12 | -10.27 | -3.43 | -0.91 | -0.06 | 0.03  |
| 252 | -22.20 | -26.79 | -24.61 | -20.71 | -17.27 | -15.85 | -10.06 | -3.33 | -0.88 | -0.12 | 0.06  |
| 251 | -21.69 | -26.23 | -23.98 | -20.23 | -16.86 | -15.46 | -9.78  | -3.26 | -0.86 | -0.13 | 0.00  |
| 250 | -21.15 | -25.52 | -23.32 | -19.71 | -16.48 | -15.07 | -9.52  | -3.21 | -0.82 | -0.11 | 0.00  |
| 249 | -20.51 | -24.77 | -22.61 | -19.13 | -15.99 | -14.63 | -9.21  | -3.14 | -0.77 | -0.05 | -0.03 |
| 248 | -19.72 | -23.95 | -21.84 | -18.47 | -15.40 | -14.06 | -8.84  | -3.03 | -0.75 | -0.04 | -0.06 |
| 247 | -18.90 | -23.03 | -21.02 | -17.75 | -14.74 | -13.38 | -8.42  | -2.90 | -0.72 | 0.00  | -0.03 |
| 246 | -18.03 | -22.03 | -20.09 | -16.95 | -14.13 | -12.77 | -7.97  | -2.72 | -0.74 | -0.03 | -0.01 |
| 245 | -17.09 | -20.90 | -19.10 | -16.11 | -13.38 | -12.06 | -7.48  | -2.55 | -0.76 | -0.04 | -0.06 |
| 244 | -16.22 | -19.74 | -18.09 | -15.25 | -12.69 | -11.47 | -7.05  | -2.40 | -0.66 | -0.06 | -0.01 |
| 243 | -15.29 | -18.62 | -17.06 | -14.38 | -11.96 | -10.81 | -6.61  | -2.20 | -0.57 | -0.06 | -0.04 |
| 242 | -14.28 | -17.49 | -15.98 | -13.44 | -11.14 | -10.06 | -6.17  | -2.00 | -0.52 | -0.03 | 0.00  |
| 241 | -13.25 | -16.36 | -14.91 | -12.51 | -10.33 | -9.26  | -5.70  | -1.84 | -0.46 | -0.04 | 0.02  |
| 240 | -12.17 | -15.15 | -13.75 | -11.50 | -9.54  | -8.56  | -5.17  | -1.62 | -0.45 | 0.02  | 0.01  |
| 239 | -11.03 | -13.78 | -12.50 | -10.47 | -8.67  | -7.75  | -4.64  | -1.43 | -0.40 | 0.08  | 0.02  |
| 238 | -9.89  | -12.38 | -11.15 | -9.36  | -7.76  | -6.91  | -4.06  | -1.26 | -0.28 | 0.08  | 0.09  |
| 237 | -8.70  | -10.83 | -9.73  | -8.18  | -6.79  | -5.96  | -3.39  | -1.00 | -0.17 | 0.13  | 0.06  |
| 236 | -7.44  | -9.24  | -8.29  | -6.92  | -5.77  | -4.95  | -2.76  | -0.75 | -0.11 | 0.14  | 0.03  |
| 235 | -6.11  | -7.63  | -6.85  | -5.69  | -4.77  | -3.97  | -2.16  | -0.51 | 0.00  | 0.10  | 0.03  |
| 234 | -4.81  | -6.06  | -5.47  | -4.48  | -3.81  | -3.11  | -1.61  | -0.28 | 0.08  | 0.08  | 0.01  |
| 233 | -3.52  | -4.57  | -4.13  | -3.38  | -2.83  | -2.20  | -1.12  | -0.11 | 0.18  | 0.06  | 0.07  |
| 232 | -2.29  | -3.17  | -2.82  | -2.26  | -1.81  | -1.31  | -0.60  | 0.10  | 0.26  | 0.09  | 0.14  |
| 231 | -1.16  | -1.86  | -1.63  | -1.21  | -0.90  | -0.50  | -0.01  | 0.23  | 0.27  | 0.11  | 0.12  |
| 230 | -0.08  | -0.66  | -0.55  | -0.24  | -0.13  | 0.19   | 0.48   | 0.35  | 0.29  | 0.11  | 0.12  |
| 229 | 0.77   | 0.44   | 0.37   | 0.57   | 0.58   | 0.80   | 0.90   | 0.51  | 0.29  | 0.11  | 0.09  |
| 228 | 1.50   | 1.34   | 1.20   | 1.27   | 1.17   | 1.34   | 1.26   | 0.66  | 0.33  | 0.14  | 0.09  |
| 227 | 2.13   | 2.03   | 1.86   | 1.77   | 1.61   | 1.77   | 1.50   | 0.72  | 0.31  | 0.15  | 0.10  |
| 226 | 2.63   | 2.62   | 2.44   | 2.25   | 2.01   | 2.10   | 1.66   | 0.82  | 0.37  | 0.20  | 0.09  |
| 225 | 3.00   | 3.07   | 2.87   | 2.57   | 2.28   | 2.34   | 1.81   | 0.84  | 0.37  | 0.21  | 0.08  |
| 224 | 3.29   | 3.40   | 3.16   | 2.87   | 2.42   | 2.46   | 1.89   | 0.91  | 0.42  | 0.21  | 0.05  |
| 223 | 3.36   | 3.57   | 3.30   | 3.04   | 2.59   | 2.62   | 1.95   | 0.95  | 0.46  | 0.20  | 0.03  |
| 222 | 3.40   | 3.58   | 3.39   | 3.10   | 2.69   | 2.70   | 2.00   | 0.98  | 0.42  | 0.23  | 0.02  |
| 221 | 3.48   | 3.57   | 3.40   | 3.07   | 2.66   | 2.70   | 2.01   | 0.99  | 0.41  | 0.24  | 0.06  |
| 220 | 3.41   | 3.53   | 3.35   | 3.00   | 2.56   | 2.58   | 1.97   | 0.92  | 0.44  | 0.24  | 0.08  |
| 219 | 3.25   | 3.36   | 3.17   | 2.82   | 2.40   | 2.43   | 1.82   | 0.82  | 0.41  | 0.24  | 0.05  |
| 218 | 3.03   | 3.12   | 2.90   | 2.63   | 2.18   | 2.25   | 1.64   | 0.76  | 0.42  | 0.21  | 0.05  |
| 217 | 2.63   | 2.74   | 2.52   | 2.37   | 1.97   | 2.08   | 1.45   | 0.68  | 0.41  | 0.20  | 0.11  |
| 216 | 2.21   | 2.21   | 2.08   | 1.99   | 1.75   | 1.81   | 1.25   | 0.61  | 0.34  | 0.20  | 0.09  |
| 215 | 1.76   | 1.60   | 1.55   | 1.56   | 1.36   | 1.47   | 1.04   | 0.53  | 0.30  | 0.15  | 0.08  |
| 214 | 1.24   | 0.91   | 0.96   | 1.03   | 0.94   | 1.02   | 0.81   | 0.40  | 0.27  | 0.21  | 0.10  |
| 213 | 0.63   | 0.09   | 0.32   | 0.46   | 0.45   | 0.56   | 0.54   | 0.30  | 0.22  | 0.20  | 0.05  |
| 212 | -0.01  | -0.75  | -0.42  | -0.17  | -0.09  | 0.11   | 0.24   | 0.21  | 0.20  | 0.19  | 0.06  |
| 211 | -0.84  | -1.65  | -1.25  | -0.87  | -0.67  | -0.43  | -0.13  | 0.10  | 0.14  | 0.15  | 0.07  |
| 210 | -1.63  | -2.61  | -2.08  | -1.60  | -1.19  | -1.01  | -0.48  | -0.04 | 0.04  | 0.11  | 0.04  |
| 209 | -2.36  | -3.56  | -2.90  | -2.27  | -1.76  | -1.55  | -0.84  | -0.17 | 0.04  | 0.06  | 0.07  |
| 208 | -3.15  | -4.58  | -3.83  | -3.01  | -2.34  | -2.11  | -1.21  | -0.32 | 0.00  | 0.05  | 0.05  |
| 207 | -3.95  | -5.58  | -4.69  | -3.76  | -2.95  | -2.62  | -1.56  | -0.42 | -0.05 | 0.06  | -0.02 |
| 206 | -4.78  | -6.57  | -5.57  | -4.49  | -3.56  | -3.10  | -1.86  | -0.53 | -0.05 | 0.06  | -0.06 |
| 205 | -5.54  | -7.47  | -6.38  | -5.12  | -4.12  | -3.59  | -2.12  | -0.64 | -0.05 | 0.13  | -0.02 |
| 204 | -6.24  | -8.33  | -7.20  | -5.79  | -4.63  | -4.12  | -2.38  | -0.77 | -0.07 | 0.14  | -0.03 |
| 203 | -6.96  | -9.21  | -8.00  | -6.41  | -5.13  | -4.67  | -2.70  | -0.88 | -0.06 | 0.10  | -0.02 |
| 202 | -7.68  | -10.09 | -8.81  | -7.03  | -5.64  | -5.14  | -3.03  | -1.00 | -0.12 | 0.07  | 0.02  |
| 201 | -8.31  | -10.87 | -9.49  | -7.68  | -6.15  | -5.59  | -3.34  | -1.09 | -0.17 | 0.11  | 0.06  |
| 200 | -8.96  | -11.59 | -10.14 | -8.25  | -6.60  | -5.98  | -3.56  | -1.15 | -0.21 | 0.15  | 0.09  |
| 199 | -9.55  | -12.23 | -10.69 | -8.74  | -7.08  | -6.39  | -3.81  | -1.19 | -0.26 | 0.17  | 0.10  |
| 198 | -10.03 | -12.82 | -11.24 | -9.22  | -7.51  | -6.72  | -4.05  | -1.25 | -0.24 | 0.11  | 0.08  |
| 197 | -10.50 | -13.31 | -11.69 | -9.59  | -7.84  | -7.05  | -4.25  | -1.28 | -0.25 | 0.07  | 0.04  |
| 196 | -10.80 | -13.71 | -12.04 | -9.84  | -8.09  | -7.27  | -4.44  | -1.36 | -0.29 | 0.05  | 0.07  |
| 195 | -11.02 | -13.95 | -12.28 | -10.13 | -8.24  | -7.47  | -4.55  | -1.42 | -0.29 | 0.06  | 0.06  |
| 194 | -11.12 | -14.06 | -12.44 | -10.33 | -8.31  | -7.57  | -4.52  | -1.42 | -0.31 | 0.14  | 0.02  |
| 193 | -11.15 | -14.06 | -12.47 | -10.39 | -8.42  | -7.63  | -4.51  | -1.36 | -0.30 | 0.17  | -0.02 |
| 192 | -11.07 | -13.96 | -12.46 | -10.38 | -8.49  | -7.63  | -4.44  | -1.32 | -0.21 | 0.23  | -0.02 |
| 191 | -11.00 | -13.74 | -12.36 | -10.29 | -8.44  | -7.59  | -4.40  | -1.34 | -0.22 | 0.28  | -0.04 |
| 190 | -10.83 | -13.43 | -12.10 | -10.04 | -8.35  | -7.45  | -4.36  | -1.33 | -0.16 | 0.37  | -0.02 |
| 189 | -10.64 | -13.02 | -11.79 | -9.77  | -8.12  | -7.31  | -4.27  | -1.23 | -0.06 | 0.42  | -0.05 |
| 188 | -10.25 | -12.51 | -11.35 | -9.48  | -7.82  | -7.07  | -4.11  | -1.13 | 0.01  | 0.45  | -0.02 |
| 187 | -9.73  | -11.88 | -10.85 | -8.98  | -7.54  | -6.66  | -3.90  | -0.86 | 0.20  | 0.68  | -0.03 |
| 186 | -9.21  | -11.25 | -10.34 | -8.56  | -7.24  | -6.48  | -3.57  | -0.69 | 0.09  | 0.56  | -0.13 |
| 185 | -8.61  | -10.69 | -9.71  | -8.04  | -6.85  | -6.00  | -3.40  | -0.42 | 0.42  | 1.16  | -0.21 |
| 184 | -7.85  | -9.72  | -8.72  | -7.41  | -6.33  | -6.00  | -2.84  | -0.59 | -0.12 | 0.40  | -0.16 |

Figure 4(b): Absorption data.

| WL/nm | 24.2C | 10.3C | 19.6C | 28.9C | 38.2C | 47.4C | 56.7C | 66C   | 75.3C | 84.5C | 24.2C |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 540   | 0.052 | 0.059 | 0.058 | 0.053 | 0.044 | 0.041 | 0.032 | 0.018 | 0.012 | 0.011 | 0.011 |
| 539   | 0.053 | 0.059 | 0.058 | 0.053 | 0.044 | 0.041 | 0.032 | 0.018 | 0.012 | 0.011 | 0.011 |
| 538   | 0.052 | 0.060 | 0.059 | 0.053 | 0.044 | 0.041 | 0.032 | 0.018 | 0.012 | 0.011 | 0.011 |
| 537   | 0.053 | 0.060 | 0.059 | 0.053 | 0.044 | 0.041 | 0.032 | 0.018 | 0.012 | 0.011 | 0.011 |
| 536   | 0.053 | 0.061 | 0.059 | 0.053 | 0.045 | 0.041 | 0.032 | 0.018 | 0.012 | 0.011 | 0.011 |
| 535   | 0.053 | 0.061 | 0.059 | 0.053 | 0.045 | 0.042 | 0.032 | 0.018 | 0.012 | 0.011 | 0.011 |
| 534   | 0.053 | 0.061 | 0.060 | 0.054 | 0.045 | 0.042 | 0.032 | 0.018 | 0.012 | 0.011 | 0.011 |
| 533   | 0.054 | 0.061 | 0.060 | 0.054 | 0.045 | 0.042 | 0.032 | 0.018 | 0.012 | 0.011 | 0.011 |
| 532   | 0.054 | 0.062 | 0.060 | 0.054 | 0.045 | 0.042 | 0.032 | 0.018 | 0.012 | 0.011 | 0.011 |
| 531   | 0.055 | 0.063 | 0.061 | 0.055 | 0.046 | 0.042 | 0.032 | 0.018 | 0.012 | 0.011 | 0.011 |
| 530   | 0.055 | 0.063 | 0.061 | 0.055 | 0.046 | 0.043 | 0.033 | 0.018 | 0.012 | 0.011 | 0.011 |
| 529   | 0.056 | 0.064 | 0.062 | 0.056 | 0.047 | 0.043 | 0.033 | 0.018 | 0.012 | 0.011 | 0.011 |
| 528   | 0.057 | 0.065 | 0.063 | 0.056 | 0.047 | 0.044 | 0.033 | 0.018 | 0.012 | 0.011 | 0.011 |
| 527   | 0.057 | 0.065 | 0.064 | 0.057 | 0.048 | 0.044 | 0.034 | 0.018 | 0.012 | 0.011 | 0.011 |
| 526   | 0.058 | 0.066 | 0.065 | 0.058 | 0.049 | 0.045 | 0.034 | 0.018 | 0.012 | 0.011 | 0.011 |

|     |       |       |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 525 | 0.059 | 0.068 | 0.066 | 0.059 | 0.049 | 0.046 | 0.034 | 0.019 | 0.012 | 0.011 | 0.011 |
| 524 | 0.060 | 0.068 | 0.066 | 0.059 | 0.050 | 0.046 | 0.035 | 0.019 | 0.012 | 0.011 | 0.011 |
| 523 | 0.061 | 0.070 | 0.068 | 0.060 | 0.051 | 0.046 | 0.035 | 0.019 | 0.012 | 0.011 | 0.011 |
| 522 | 0.062 | 0.071 | 0.069 | 0.061 | 0.051 | 0.047 | 0.036 | 0.019 | 0.012 | 0.011 | 0.011 |
| 521 | 0.063 | 0.072 | 0.070 | 0.063 | 0.052 | 0.048 | 0.036 | 0.019 | 0.012 | 0.011 | 0.011 |
| 520 | 0.064 | 0.074 | 0.071 | 0.064 | 0.053 | 0.049 | 0.037 | 0.020 | 0.012 | 0.011 | 0.011 |
| 519 | 0.066 | 0.075 | 0.073 | 0.065 | 0.055 | 0.050 | 0.038 | 0.020 | 0.013 | 0.011 | 0.011 |
| 518 | 0.068 | 0.077 | 0.075 | 0.067 | 0.056 | 0.051 | 0.039 | 0.020 | 0.013 | 0.012 | 0.011 |
| 517 | 0.069 | 0.079 | 0.077 | 0.068 | 0.057 | 0.053 | 0.039 | 0.021 | 0.013 | 0.012 | 0.011 |
| 516 | 0.071 | 0.081 | 0.079 | 0.070 | 0.058 | 0.054 | 0.041 | 0.022 | 0.014 | 0.013 | 0.011 |
| 515 | 0.073 | 0.083 | 0.081 | 0.072 | 0.060 | 0.055 | 0.042 | 0.022 | 0.014 | 0.013 | 0.011 |
| 514 | 0.075 | 0.085 | 0.083 | 0.074 | 0.061 | 0.057 | 0.043 | 0.023 | 0.015 | 0.013 | 0.011 |
| 513 | 0.077 | 0.088 | 0.085 | 0.076 | 0.063 | 0.059 | 0.044 | 0.024 | 0.015 | 0.014 | 0.012 |
| 512 | 0.080 | 0.091 | 0.088 | 0.078 | 0.065 | 0.061 | 0.046 | 0.025 | 0.016 | 0.015 | 0.012 |
| 511 | 0.082 | 0.093 | 0.091 | 0.081 | 0.067 | 0.063 | 0.047 | 0.025 | 0.016 | 0.015 | 0.012 |
| 510 | 0.085 | 0.096 | 0.094 | 0.083 | 0.070 | 0.065 | 0.049 | 0.026 | 0.017 | 0.016 | 0.012 |
| 509 | 0.088 | 0.100 | 0.097 | 0.086 | 0.072 | 0.067 | 0.050 | 0.027 | 0.018 | 0.017 | 0.012 |
| 508 | 0.091 | 0.103 | 0.100 | 0.089 | 0.075 | 0.070 | 0.052 | 0.028 | 0.018 | 0.017 | 0.012 |
| 507 | 0.095 | 0.107 | 0.104 | 0.093 | 0.077 | 0.072 | 0.054 | 0.029 | 0.019 | 0.018 | 0.012 |
| 506 | 0.098 | 0.111 | 0.108 | 0.096 | 0.081 | 0.075 | 0.056 | 0.030 | 0.020 | 0.018 | 0.013 |
| 505 | 0.102 | 0.115 | 0.112 | 0.100 | 0.083 | 0.078 | 0.058 | 0.031 | 0.020 | 0.019 | 0.013 |
| 504 | 0.106 | 0.120 | 0.117 | 0.104 | 0.087 | 0.081 | 0.060 | 0.032 | 0.021 | 0.019 | 0.013 |
| 503 | 0.110 | 0.125 | 0.121 | 0.108 | 0.090 | 0.084 | 0.062 | 0.033 | 0.021 | 0.020 | 0.013 |
| 502 | 0.115 | 0.130 | 0.126 | 0.112 | 0.094 | 0.087 | 0.065 | 0.034 | 0.022 | 0.020 | 0.013 |
| 501 | 0.119 | 0.135 | 0.131 | 0.117 | 0.097 | 0.090 | 0.067 | 0.035 | 0.022 | 0.020 | 0.013 |
| 500 | 0.124 | 0.140 | 0.137 | 0.121 | 0.101 | 0.094 | 0.069 | 0.035 | 0.022 | 0.020 | 0.013 |
| 499 | 0.129 | 0.146 | 0.142 | 0.126 | 0.105 | 0.097 | 0.071 | 0.036 | 0.023 | 0.020 | 0.013 |
| 498 | 0.134 | 0.152 | 0.148 | 0.131 | 0.109 | 0.101 | 0.074 | 0.037 | 0.023 | 0.021 | 0.013 |
| 497 | 0.140 | 0.158 | 0.154 | 0.136 | 0.113 | 0.105 | 0.076 | 0.038 | 0.023 | 0.021 | 0.013 |
| 496 | 0.145 | 0.164 | 0.160 | 0.142 | 0.117 | 0.108 | 0.079 | 0.039 | 0.024 | 0.021 | 0.013 |
| 495 | 0.150 | 0.170 | 0.166 | 0.147 | 0.121 | 0.112 | 0.081 | 0.040 | 0.024 | 0.021 | 0.013 |
| 494 | 0.155 | 0.176 | 0.171 | 0.152 | 0.125 | 0.115 | 0.083 | 0.040 | 0.024 | 0.021 | 0.013 |
| 493 | 0.160 | 0.182 | 0.177 | 0.157 | 0.129 | 0.119 | 0.086 | 0.041 | 0.024 | 0.021 | 0.013 |
| 492 | 0.166 | 0.188 | 0.183 | 0.162 | 0.133 | 0.123 | 0.088 | 0.042 | 0.024 | 0.021 | 0.013 |
| 491 | 0.170 | 0.193 | 0.188 | 0.166 | 0.137 | 0.126 | 0.090 | 0.043 | 0.024 | 0.020 | 0.013 |
| 490 | 0.175 | 0.198 | 0.193 | 0.171 | 0.141 | 0.129 | 0.092 | 0.043 | 0.025 | 0.020 | 0.013 |
| 489 | 0.179 | 0.203 | 0.198 | 0.175 | 0.144 | 0.132 | 0.094 | 0.044 | 0.025 | 0.020 | 0.013 |
| 488 | 0.184 | 0.208 | 0.202 | 0.179 | 0.147 | 0.135 | 0.096 | 0.045 | 0.025 | 0.020 | 0.013 |
| 487 | 0.187 | 0.212 | 0.206 | 0.182 | 0.150 | 0.137 | 0.097 | 0.045 | 0.025 | 0.020 | 0.012 |
| 486 | 0.190 | 0.216 | 0.210 | 0.186 | 0.153 | 0.140 | 0.099 | 0.046 | 0.025 | 0.020 | 0.012 |
| 485 | 0.193 | 0.219 | 0.213 | 0.188 | 0.155 | 0.142 | 0.100 | 0.046 | 0.025 | 0.020 | 0.013 |
| 484 | 0.196 | 0.221 | 0.216 | 0.191 | 0.157 | 0.144 | 0.101 | 0.046 | 0.025 | 0.020 | 0.013 |
| 483 | 0.198 | 0.223 | 0.218 | 0.192 | 0.158 | 0.145 | 0.102 | 0.046 | 0.025 | 0.020 | 0.013 |
| 482 | 0.199 | 0.225 | 0.219 | 0.194 | 0.159 | 0.146 | 0.102 | 0.047 | 0.025 | 0.020 | 0.012 |
| 481 | 0.200 | 0.226 | 0.220 | 0.195 | 0.160 | 0.146 | 0.103 | 0.047 | 0.025 | 0.020 | 0.012 |
| 480 | 0.201 | 0.226 | 0.221 | 0.195 | 0.161 | 0.147 | 0.103 | 0.047 | 0.025 | 0.020 | 0.012 |
| 479 | 0.201 | 0.227 | 0.221 | 0.196 | 0.161 | 0.147 | 0.103 | 0.047 | 0.025 | 0.020 | 0.012 |
| 478 | 0.201 | 0.226 | 0.221 | 0.195 | 0.161 | 0.147 | 0.103 | 0.047 | 0.025 | 0.020 | 0.012 |
| 477 | 0.200 | 0.225 | 0.220 | 0.195 | 0.161 | 0.147 | 0.102 | 0.047 | 0.025 | 0.020 | 0.012 |
| 476 | 0.200 | 0.224 | 0.219 | 0.194 | 0.160 | 0.146 | 0.102 | 0.047 | 0.025 | 0.020 | 0.012 |
| 475 | 0.199 | 0.223 | 0.218 | 0.193 | 0.160 | 0.146 | 0.102 | 0.046 | 0.025 | 0.020 | 0.012 |
| 474 | 0.198 | 0.222 | 0.216 | 0.192 | 0.159 | 0.145 | 0.101 | 0.046 | 0.025 | 0.020 | 0.012 |
| 473 | 0.197 | 0.220 | 0.215 | 0.191 | 0.158 | 0.144 | 0.100 | 0.046 | 0.025 | 0.020 | 0.012 |
| 472 | 0.196 | 0.219 | 0.214 | 0.190 | 0.157 | 0.144 | 0.100 | 0.046 | 0.025 | 0.020 | 0.012 |
| 471 | 0.195 | 0.217 | 0.213 | 0.189 | 0.156 | 0.143 | 0.100 | 0.046 | 0.025 | 0.020 | 0.012 |
| 470 | 0.193 | 0.216 | 0.211 | 0.188 | 0.156 | 0.142 | 0.099 | 0.045 | 0.025 | 0.020 | 0.012 |
| 469 | 0.193 | 0.215 | 0.210 | 0.187 | 0.155 | 0.142 | 0.099 | 0.045 | 0.025 | 0.020 | 0.012 |
| 468 | 0.192 | 0.214 | 0.209 | 0.186 | 0.155 | 0.141 | 0.099 | 0.046 | 0.025 | 0.021 | 0.012 |
| 467 | 0.191 | 0.213 | 0.208 | 0.185 | 0.154 | 0.141 | 0.098 | 0.045 | 0.025 | 0.020 | 0.012 |
| 466 | 0.190 | 0.212 | 0.208 | 0.185 | 0.154 | 0.140 | 0.098 | 0.045 | 0.025 | 0.020 | 0.012 |
| 465 | 0.190 | 0.212 | 0.207 | 0.184 | 0.153 | 0.140 | 0.098 | 0.045 | 0.025 | 0.021 | 0.012 |
| 464 | 0.189 | 0.211 | 0.206 | 0.184 | 0.153 | 0.140 | 0.098 | 0.045 | 0.025 | 0.021 | 0.012 |
| 463 | 0.189 | 0.210 | 0.206 | 0.183 | 0.152 | 0.139 | 0.097 | 0.045 | 0.025 | 0.021 | 0.012 |
| 462 | 0.188 | 0.210 | 0.205 | 0.183 | 0.152 | 0.139 | 0.097 | 0.045 | 0.025 | 0.021 | 0.012 |
| 461 | 0.188 | 0.209 | 0.205 | 0.183 | 0.152 | 0.139 | 0.097 | 0.045 | 0.025 | 0.021 | 0.012 |
| 460 | 0.187 | 0.208 | 0.204 | 0.182 | 0.151 | 0.138 | 0.097 | 0.045 | 0.025 | 0.021 | 0.012 |
| 459 | 0.187 | 0.208 | 0.203 | 0.182 | 0.151 | 0.138 | 0.097 | 0.045 | 0.025 | 0.021 | 0.012 |
| 458 | 0.186 | 0.207 | 0.203 | 0.181 | 0.151 | 0.138 | 0.096 | 0.045 | 0.025 | 0.021 | 0.012 |
| 457 | 0.185 | 0.207 | 0.202 | 0.180 | 0.150 | 0.137 | 0.096 | 0.045 | 0.025 | 0.021 | 0.012 |
| 456 | 0.185 | 0.206 | 0.201 | 0.180 | 0.150 | 0.137 | 0.096 | 0.045 | 0.025 | 0.021 | 0.012 |
| 455 | 0.184 | 0.205 | 0.201 | 0.179 | 0.150 | 0.137 | 0.096 | 0.045 | 0.025 | 0.021 | 0.012 |
| 454 | 0.183 | 0.205 | 0.200 | 0.178 | 0.149 | 0.136 | 0.095 | 0.044 | 0.025 | 0.021 | 0.012 |
| 453 | 0.183 | 0.204 | 0.199 | 0.178 | 0.149 | 0.136 | 0.095 | 0.045 | 0.026 | 0.022 | 0.012 |
| 452 | 0.182 | 0.203 | 0.199 | 0.177 | 0.148 | 0.135 | 0.095 | 0.045 | 0.026 | 0.021 | 0.012 |
| 451 | 0.182 | 0.203 | 0.198 | 0.176 | 0.147 | 0.135 | 0.095 | 0.044 | 0.026 | 0.022 | 0.012 |
| 450 | 0.181 | 0.202 | 0.197 | 0.176 | 0.147 | 0.135 | 0.095 | 0.044 | 0.026 | 0.022 | 0.012 |
| 449 | 0.180 | 0.201 | 0.196 | 0.175 | 0.147 | 0.134 | 0.094 | 0.044 | 0.026 | 0.022 | 0.012 |
| 448 | 0.180 | 0.201 | 0.196 | 0.175 | 0.146 | 0.134 | 0.094 | 0.044 | 0.026 | 0.022 | 0.012 |
| 447 | 0.179 | 0.200 | 0.195 | 0.174 | 0.146 | 0.134 | 0.094 | 0.044 | 0.026 | 0.022 | 0.012 |
| 446 | 0.178 | 0.199 | 0.194 | 0.173 | 0.145 | 0.133 | 0.093 | 0.044 | 0.026 | 0.022 | 0.012 |
| 445 | 0.178 | 0.199 | 0.194 | 0.173 | 0.145 | 0.133 | 0.093 | 0.045 | 0.026 | 0.023 | 0.012 |
| 444 | 0.177 | 0.198 | 0.193 | 0.172 | 0.144 | 0.132 | 0.093 | 0.044 | 0.026 | 0.022 | 0.012 |
| 443 | 0.177 | 0.197 | 0.192 | 0.172 | 0.144 | 0.132 | 0.093 | 0.044 | 0.026 | 0.022 | 0.012 |
| 442 | 0.176 | 0.197 | 0.192 | 0.171 | 0.143 | 0.131 | 0.093 | 0.044 | 0.026 | 0.023 | 0.012 |
| 441 | 0.175 | 0.196 | 0.191 | 0.170 | 0.143 | 0.131 | 0.092 | 0.044 | 0.026 | 0.023 | 0.012 |
| 440 | 0.174 | 0.195 | 0.190 | 0.169 | 0.142 | 0.130 | 0.092 | 0.044 | 0.027 | 0.023 | 0.012 |
| 439 | 0.173 | 0.194 | 0.189 | 0.169 | 0.141 | 0.130 | 0.091 | 0.044 | 0.027 | 0.023 | 0.012 |
| 438 | 0.172 | 0.193 | 0.188 | 0.167 | 0.140 | 0.129 | 0.091 | 0.044 | 0.027 | 0.023 | 0.012 |
| 437 | 0.171 | 0.191 | 0.186 | 0.166 | 0.139 | 0.128 | 0.090 | 0.043 | 0.026 | 0.023 | 0.012 |
| 436 | 0.169 | 0.189 | 0.184 | 0.165 | 0.139 | 0.127 | 0.090 | 0.043 | 0.027 | 0.023 | 0.012 |
| 435 | 0.167 | 0.187 | 0.182 | 0.163 | 0.137 | 0.126 | 0.089 | 0.043 | 0.027 | 0.023 | 0.012 |
| 434 | 0.166 | 0.185 | 0.180 | 0.161 | 0.135 | 0.125 | 0.088 | 0.043 | 0.027 | 0.024 | 0.012 |
| 433 | 0.163 | 0.182 | 0.177 | 0.159 | 0.133 | 0.123 | 0.087 | 0.042 | 0.026 | 0.023 | 0.012 |
| 432 | 0.161 | 0.180 | 0.175 | 0.156 | 0.132 | 0.121 | 0.086 | 0.042 | 0.026 | 0.024 | 0.012 |
| 431 | 0.158 | 0.177 | 0.171 | 0.154 | 0.129 | 0.119 | 0.085 | 0.042 | 0.026 | 0.023 | 0.012 |
| 430 | 0.155 | 0.173 | 0.168 | 0.151 | 0.127 | 0.117 | 0.083 | 0.041 | 0.026 | 0.024 | 0.012 |
| 429 | 0.152 | 0.170 | 0.165 | 0.148 | 0.125 | 0.115 | 0.082 | 0.041 | 0.026 | 0.024 | 0.012 |
| 428 | 0.149 | 0.166 | 0.162 | 0.145 | 0.123 | 0.113 | 0.081 | 0.041 | 0.026 | 0.024 | 0.012 |
| 427 | 0.145 | 0.162 | 0.158 | 0.141 | 0.120 | 0.111 | 0.079 | 0.040 | 0.026 | 0.024 | 0.012 |

|     |       |       |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 426 | 0.142 | 0.158 | 0.154 | 0.138 | 0.117 | 0.108 | 0.078 | 0.040 | 0.026 | 0.024 | 0.012 |
| 425 | 0.138 | 0.154 | 0.150 | 0.135 | 0.114 | 0.106 | 0.076 | 0.039 | 0.026 | 0.024 | 0.012 |
| 424 | 0.134 | 0.150 | 0.146 | 0.131 | 0.111 | 0.103 | 0.074 | 0.038 | 0.026 | 0.024 | 0.012 |
| 423 | 0.131 | 0.146 | 0.142 | 0.128 | 0.109 | 0.101 | 0.073 | 0.038 | 0.026 | 0.024 | 0.012 |
| 422 | 0.128 | 0.142 | 0.138 | 0.124 | 0.106 | 0.098 | 0.071 | 0.037 | 0.026 | 0.024 | 0.012 |
| 421 | 0.124 | 0.138 | 0.134 | 0.121 | 0.103 | 0.096 | 0.069 | 0.037 | 0.026 | 0.024 | 0.012 |
| 420 | 0.121 | 0.135 | 0.131 | 0.118 | 0.101 | 0.094 | 0.068 | 0.036 | 0.026 | 0.024 | 0.012 |
| 419 | 0.117 | 0.131 | 0.127 | 0.115 | 0.098 | 0.091 | 0.066 | 0.036 | 0.026 | 0.024 | 0.012 |
| 418 | 0.114 | 0.127 | 0.124 | 0.112 | 0.096 | 0.089 | 0.065 | 0.036 | 0.026 | 0.025 | 0.012 |
| 417 | 0.111 | 0.124 | 0.120 | 0.109 | 0.093 | 0.087 | 0.063 | 0.035 | 0.025 | 0.025 | 0.012 |
| 416 | 0.108 | 0.120 | 0.117 | 0.106 | 0.091 | 0.085 | 0.062 | 0.035 | 0.025 | 0.025 | 0.012 |
| 415 | 0.105 | 0.117 | 0.114 | 0.103 | 0.089 | 0.083 | 0.061 | 0.034 | 0.025 | 0.025 | 0.012 |
| 414 | 0.102 | 0.114 | 0.111 | 0.100 | 0.086 | 0.081 | 0.060 | 0.034 | 0.025 | 0.025 | 0.012 |
| 413 | 0.100 | 0.111 | 0.108 | 0.098 | 0.084 | 0.079 | 0.059 | 0.033 | 0.025 | 0.025 | 0.012 |
| 412 | 0.097 | 0.108 | 0.105 | 0.095 | 0.083 | 0.078 | 0.058 | 0.033 | 0.025 | 0.025 | 0.012 |
| 411 | 0.095 | 0.106 | 0.103 | 0.093 | 0.081 | 0.076 | 0.057 | 0.033 | 0.025 | 0.025 | 0.012 |
| 410 | 0.093 | 0.103 | 0.100 | 0.091 | 0.079 | 0.074 | 0.056 | 0.033 | 0.025 | 0.025 | 0.012 |
| 409 | 0.091 | 0.101 | 0.098 | 0.089 | 0.078 | 0.073 | 0.055 | 0.032 | 0.025 | 0.025 | 0.012 |
| 408 | 0.089 | 0.100 | 0.096 | 0.088 | 0.077 | 0.072 | 0.054 | 0.032 | 0.026 | 0.026 | 0.012 |
| 407 | 0.088 | 0.098 | 0.095 | 0.086 | 0.075 | 0.071 | 0.054 | 0.032 | 0.026 | 0.026 | 0.012 |
| 406 | 0.087 | 0.097 | 0.094 | 0.086 | 0.075 | 0.071 | 0.053 | 0.032 | 0.026 | 0.026 | 0.012 |
| 405 | 0.086 | 0.096 | 0.093 | 0.085 | 0.074 | 0.070 | 0.053 | 0.032 | 0.026 | 0.026 | 0.012 |
| 404 | 0.086 | 0.095 | 0.092 | 0.084 | 0.074 | 0.070 | 0.053 | 0.032 | 0.026 | 0.026 | 0.012 |
| 403 | 0.085 | 0.095 | 0.092 | 0.084 | 0.074 | 0.070 | 0.053 | 0.032 | 0.026 | 0.026 | 0.012 |
| 402 | 0.086 | 0.096 | 0.092 | 0.084 | 0.074 | 0.070 | 0.053 | 0.032 | 0.026 | 0.026 | 0.013 |
| 401 | 0.086 | 0.096 | 0.093 | 0.085 | 0.074 | 0.070 | 0.053 | 0.033 | 0.026 | 0.027 | 0.012 |
| 400 | 0.087 | 0.097 | 0.094 | 0.085 | 0.075 | 0.071 | 0.054 | 0.033 | 0.027 | 0.027 | 0.013 |
| 399 | 0.088 | 0.098 | 0.095 | 0.086 | 0.076 | 0.072 | 0.054 | 0.033 | 0.027 | 0.027 | 0.012 |
| 398 | 0.090 | 0.100 | 0.097 | 0.088 | 0.077 | 0.073 | 0.055 | 0.033 | 0.027 | 0.027 | 0.013 |
| 397 | 0.091 | 0.102 | 0.098 | 0.089 | 0.078 | 0.074 | 0.056 | 0.034 | 0.027 | 0.028 | 0.013 |
| 396 | 0.093 | 0.104 | 0.100 | 0.091 | 0.079 | 0.075 | 0.057 | 0.034 | 0.027 | 0.028 | 0.013 |
| 395 | 0.094 | 0.105 | 0.102 | 0.092 | 0.080 | 0.076 | 0.057 | 0.034 | 0.027 | 0.028 | 0.013 |
| 394 | 0.096 | 0.108 | 0.104 | 0.094 | 0.082 | 0.077 | 0.058 | 0.035 | 0.028 | 0.028 | 0.013 |
| 393 | 0.097 | 0.110 | 0.105 | 0.095 | 0.083 | 0.078 | 0.059 | 0.035 | 0.028 | 0.028 | 0.013 |
| 392 | 0.099 | 0.111 | 0.107 | 0.097 | 0.084 | 0.080 | 0.060 | 0.036 | 0.028 | 0.029 | 0.013 |
| 391 | 0.100 | 0.113 | 0.109 | 0.098 | 0.086 | 0.080 | 0.060 | 0.036 | 0.029 | 0.029 | 0.013 |
| 390 | 0.102 | 0.114 | 0.110 | 0.099 | 0.086 | 0.081 | 0.061 | 0.036 | 0.029 | 0.029 | 0.013 |
| 389 | 0.103 | 0.115 | 0.111 | 0.101 | 0.087 | 0.082 | 0.062 | 0.037 | 0.029 | 0.029 | 0.013 |
| 388 | 0.104 | 0.117 | 0.112 | 0.101 | 0.088 | 0.083 | 0.062 | 0.037 | 0.029 | 0.029 | 0.013 |
| 387 | 0.105 | 0.117 | 0.113 | 0.102 | 0.089 | 0.084 | 0.063 | 0.037 | 0.030 | 0.030 | 0.013 |
| 386 | 0.105 | 0.118 | 0.113 | 0.103 | 0.089 | 0.084 | 0.063 | 0.037 | 0.030 | 0.030 | 0.013 |
| 385 | 0.106 | 0.119 | 0.114 | 0.103 | 0.090 | 0.085 | 0.064 | 0.038 | 0.030 | 0.030 | 0.013 |
| 384 | 0.107 | 0.120 | 0.115 | 0.104 | 0.091 | 0.085 | 0.064 | 0.038 | 0.030 | 0.031 | 0.013 |
| 383 | 0.107 | 0.120 | 0.116 | 0.105 | 0.091 | 0.086 | 0.064 | 0.038 | 0.031 | 0.031 | 0.013 |
| 382 | 0.108 | 0.121 | 0.116 | 0.105 | 0.092 | 0.086 | 0.065 | 0.039 | 0.031 | 0.032 | 0.013 |
| 381 | 0.108 | 0.121 | 0.117 | 0.106 | 0.092 | 0.087 | 0.065 | 0.039 | 0.032 | 0.032 | 0.013 |
| 380 | 0.109 | 0.122 | 0.118 | 0.106 | 0.093 | 0.088 | 0.066 | 0.040 | 0.032 | 0.033 | 0.013 |
| 379 | 0.109 | 0.123 | 0.118 | 0.107 | 0.093 | 0.088 | 0.066 | 0.040 | 0.032 | 0.033 | 0.013 |
| 378 | 0.110 | 0.123 | 0.119 | 0.108 | 0.094 | 0.089 | 0.067 | 0.040 | 0.033 | 0.033 | 0.013 |
| 377 | 0.111 | 0.124 | 0.119 | 0.108 | 0.095 | 0.089 | 0.067 | 0.041 | 0.033 | 0.033 | 0.013 |
| 376 | 0.112 | 0.125 | 0.120 | 0.109 | 0.095 | 0.090 | 0.068 | 0.041 | 0.033 | 0.034 | 0.013 |
| 375 | 0.112 | 0.125 | 0.121 | 0.110 | 0.096 | 0.091 | 0.068 | 0.041 | 0.034 | 0.034 | 0.013 |
| 374 | 0.113 | 0.126 | 0.122 | 0.110 | 0.096 | 0.091 | 0.068 | 0.041 | 0.034 | 0.034 | 0.013 |
| 373 | 0.114 | 0.127 | 0.122 | 0.111 | 0.097 | 0.091 | 0.069 | 0.042 | 0.034 | 0.034 | 0.013 |
| 372 | 0.114 | 0.127 | 0.123 | 0.111 | 0.097 | 0.092 | 0.069 | 0.041 | 0.034 | 0.034 | 0.013 |
| 371 | 0.115 | 0.128 | 0.123 | 0.111 | 0.098 | 0.092 | 0.069 | 0.042 | 0.034 | 0.033 | 0.013 |
| 370 | 0.115 | 0.128 | 0.124 | 0.112 | 0.098 | 0.092 | 0.070 | 0.042 | 0.033 | 0.033 | 0.013 |
| 369 | 0.116 | 0.129 | 0.124 | 0.112 | 0.098 | 0.093 | 0.069 | 0.041 | 0.033 | 0.033 | 0.013 |
| 368 | 0.116 | 0.130 | 0.125 | 0.113 | 0.099 | 0.093 | 0.069 | 0.041 | 0.033 | 0.032 | 0.013 |
| 367 | 0.117 | 0.130 | 0.125 | 0.113 | 0.099 | 0.093 | 0.069 | 0.041 | 0.033 | 0.032 | 0.013 |
| 366 | 0.117 | 0.131 | 0.126 | 0.114 | 0.099 | 0.093 | 0.069 | 0.041 | 0.032 | 0.032 | 0.013 |
| 365 | 0.118 | 0.132 | 0.127 | 0.114 | 0.100 | 0.094 | 0.069 | 0.041 | 0.032 | 0.032 | 0.013 |
| 364 | 0.119 | 0.133 | 0.127 | 0.115 | 0.100 | 0.094 | 0.070 | 0.041 | 0.032 | 0.032 | 0.013 |
| 363 | 0.120 | 0.134 | 0.129 | 0.116 | 0.101 | 0.095 | 0.070 | 0.041 | 0.032 | 0.032 | 0.014 |
| 362 | 0.120 | 0.135 | 0.129 | 0.116 | 0.101 | 0.095 | 0.070 | 0.041 | 0.032 | 0.032 | 0.014 |
| 361 | 0.122 | 0.136 | 0.130 | 0.117 | 0.102 | 0.096 | 0.071 | 0.041 | 0.032 | 0.032 | 0.014 |
| 360 | 0.123 | 0.137 | 0.131 | 0.118 | 0.103 | 0.096 | 0.071 | 0.042 | 0.033 | 0.032 | 0.014 |
| 359 | 0.123 | 0.138 | 0.133 | 0.119 | 0.104 | 0.097 | 0.072 | 0.042 | 0.033 | 0.032 | 0.014 |
| 358 | 0.125 | 0.140 | 0.134 | 0.121 | 0.105 | 0.098 | 0.072 | 0.042 | 0.033 | 0.033 | 0.014 |
| 357 | 0.126 | 0.142 | 0.136 | 0.122 | 0.106 | 0.099 | 0.073 | 0.042 | 0.033 | 0.033 | 0.014 |
| 356 | 0.128 | 0.144 | 0.137 | 0.124 | 0.107 | 0.100 | 0.074 | 0.043 | 0.033 | 0.033 | 0.014 |
| 355 | 0.130 | 0.145 | 0.139 | 0.125 | 0.108 | 0.101 | 0.075 | 0.043 | 0.034 | 0.033 | 0.014 |
| 354 | 0.131 | 0.147 | 0.141 | 0.126 | 0.110 | 0.102 | 0.075 | 0.044 | 0.034 | 0.033 | 0.014 |
| 353 | 0.133 | 0.149 | 0.142 | 0.128 | 0.111 | 0.103 | 0.076 | 0.044 | 0.034 | 0.033 | 0.015 |
| 352 | 0.134 | 0.151 | 0.144 | 0.129 | 0.112 | 0.104 | 0.077 | 0.044 | 0.034 | 0.033 | 0.014 |
| 351 | 0.135 | 0.152 | 0.145 | 0.130 | 0.113 | 0.105 | 0.077 | 0.044 | 0.034 | 0.034 | 0.014 |
| 350 | 0.136 | 0.153 | 0.146 | 0.131 | 0.114 | 0.106 | 0.078 | 0.044 | 0.034 | 0.034 | 0.014 |
| 349 | 0.137 | 0.154 | 0.147 | 0.132 | 0.114 | 0.107 | 0.078 | 0.045 | 0.035 | 0.034 | 0.015 |
| 348 | 0.138 | 0.155 | 0.148 | 0.133 | 0.115 | 0.107 | 0.078 | 0.045 | 0.035 | 0.034 | 0.015 |
| 347 | 0.138 | 0.156 | 0.149 | 0.133 | 0.115 | 0.107 | 0.079 | 0.045 | 0.035 | 0.034 | 0.015 |
| 346 | 0.139 | 0.156 | 0.149 | 0.133 | 0.116 | 0.108 | 0.079 | 0.045 | 0.035 | 0.034 | 0.015 |
| 345 | 0.139 | 0.156 | 0.149 | 0.133 | 0.116 | 0.108 | 0.079 | 0.045 | 0.035 | 0.034 | 0.015 |
| 344 | 0.138 | 0.156 | 0.148 | 0.133 | 0.116 | 0.108 | 0.079 | 0.045 | 0.035 | 0.035 | 0.015 |
| 343 | 0.138 | 0.155 | 0.148 | 0.133 | 0.115 | 0.108 | 0.079 | 0.045 | 0.035 | 0.035 | 0.015 |
| 342 | 0.138 | 0.155 | 0.148 | 0.133 | 0.115 | 0.107 | 0.079 | 0.045 | 0.035 | 0.035 | 0.015 |
| 341 | 0.137 | 0.155 | 0.147 | 0.132 | 0.115 | 0.107 | 0.079 | 0.045 | 0.035 | 0.035 | 0.015 |
| 340 | 0.137 | 0.154 | 0.147 | 0.132 | 0.115 | 0.107 | 0.078 | 0.045 | 0.035 | 0.035 | 0.015 |
| 339 | 0.137 | 0.153 | 0.146 | 0.131 | 0.115 | 0.107 | 0.079 | 0.045 | 0.036 | 0.035 | 0.015 |
| 338 | 0.136 | 0.153 | 0.146 | 0.131 | 0.114 | 0.106 | 0.078 | 0.045 | 0.035 | 0.035 | 0.015 |
| 337 | 0.136 | 0.152 | 0.146 | 0.131 | 0.114 | 0.106 | 0.078 | 0.045 | 0.036 | 0.035 | 0.015 |
| 336 | 0.135 | 0.152 | 0.145 | 0.130 | 0.113 | 0.106 | 0.078 | 0.045 | 0.036 | 0.035 | 0.015 |
| 335 | 0.135 | 0.151 | 0.144 | 0.130 | 0.113 | 0.106 | 0.078 | 0.045 | 0.036 | 0.036 | 0.015 |
| 334 | 0.134 | 0.151 | 0.144 | 0.129 | 0.113 | 0.105 | 0.077 | 0.045 | 0.036 | 0.035 | 0.015 |
| 333 | 0.134 | 0.150 | 0.143 | 0.129 | 0.112 | 0.105 | 0.077 | 0.045 | 0.036 | 0.035 | 0.015 |
| 332 | 0.134 | 0.150 | 0.143 | 0.128 | 0.112 | 0.105 | 0.077 | 0.045 | 0.036 | 0.036 | 0.015 |
| 331 | 0.133 | 0.149 | 0.142 | 0.128 | 0.111 | 0.104 | 0.077 | 0.045 | 0.036 | 0.036 | 0.015 |
| 330 | 0.132 | 0.148 | 0.141 | 0.127 | 0.111 | 0.104 | 0.077 | 0.045 | 0.036 | 0.036 | 0.015 |
| 329 | 0.132 | 0.148 | 0.141 | 0.127 | 0.111 | 0.103 | 0.077 | 0.045 | 0.036 | 0.036 | 0.015 |
| 328 | 0.131 | 0.147 | 0.140 | 0.126 | 0.111 | 0.103 | 0.076 | 0.045 | 0.036 | 0.036 | 0.015 |



|     |       |       |       |       |       |       |       |       |       |       |        |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 228 | 0.125 | 0.143 | 0.134 | 0.119 | 0.104 | 0.096 | 0.068 | 0.038 | 0.029 | 0.028 | 0.012  |
| 227 | 0.124 | 0.142 | 0.132 | 0.118 | 0.103 | 0.096 | 0.068 | 0.038 | 0.029 | 0.028 | 0.012  |
| 226 | 0.123 | 0.141 | 0.131 | 0.117 | 0.103 | 0.095 | 0.067 | 0.037 | 0.029 | 0.028 | 0.012  |
| 225 | 0.122 | 0.140 | 0.130 | 0.116 | 0.102 | 0.095 | 0.066 | 0.037 | 0.028 | 0.028 | 0.011  |
| 224 | 0.121 | 0.138 | 0.129 | 0.115 | 0.101 | 0.093 | 0.066 | 0.037 | 0.028 | 0.028 | 0.011  |
| 223 | 0.120 | 0.137 | 0.128 | 0.114 | 0.100 | 0.093 | 0.065 | 0.037 | 0.028 | 0.027 | 0.012  |
| 222 | 0.119 | 0.136 | 0.127 | 0.113 | 0.099 | 0.092 | 0.065 | 0.036 | 0.028 | 0.027 | 0.011  |
| 221 | 0.118 | 0.135 | 0.125 | 0.112 | 0.098 | 0.091 | 0.064 | 0.036 | 0.028 | 0.027 | 0.011  |
| 220 | 0.117 | 0.134 | 0.124 | 0.112 | 0.098 | 0.091 | 0.064 | 0.036 | 0.027 | 0.027 | 0.011  |
| 219 | 0.116 | 0.133 | 0.124 | 0.111 | 0.097 | 0.090 | 0.063 | 0.036 | 0.027 | 0.026 | 0.011  |
| 218 | 0.115 | 0.132 | 0.123 | 0.110 | 0.096 | 0.090 | 0.063 | 0.035 | 0.027 | 0.026 | 0.011  |
| 217 | 0.115 | 0.131 | 0.122 | 0.110 | 0.096 | 0.089 | 0.063 | 0.035 | 0.027 | 0.026 | 0.011  |
| 216 | 0.114 | 0.131 | 0.122 | 0.109 | 0.096 | 0.089 | 0.063 | 0.035 | 0.027 | 0.026 | 0.011  |
| 215 | 0.115 | 0.131 | 0.122 | 0.110 | 0.096 | 0.089 | 0.063 | 0.035 | 0.027 | 0.026 | 0.011  |
| 214 | 0.115 | 0.132 | 0.123 | 0.110 | 0.097 | 0.090 | 0.063 | 0.035 | 0.027 | 0.026 | 0.011  |
| 213 | 0.116 | 0.132 | 0.124 | 0.111 | 0.098 | 0.091 | 0.064 | 0.035 | 0.027 | 0.026 | 0.011  |
| 212 | 0.118 | 0.134 | 0.125 | 0.112 | 0.099 | 0.092 | 0.064 | 0.035 | 0.027 | 0.026 | 0.011  |
| 211 | 0.119 | 0.137 | 0.127 | 0.114 | 0.100 | 0.093 | 0.065 | 0.036 | 0.027 | 0.026 | 0.011  |
| 210 | 0.122 | 0.139 | 0.130 | 0.117 | 0.102 | 0.095 | 0.067 | 0.036 | 0.027 | 0.027 | 0.011  |
| 209 | 0.125 | 0.142 | 0.133 | 0.119 | 0.104 | 0.097 | 0.068 | 0.037 | 0.028 | 0.027 | 0.011  |
| 208 | 0.128 | 0.146 | 0.137 | 0.123 | 0.107 | 0.100 | 0.069 | 0.038 | 0.028 | 0.027 | 0.011  |
| 207 | 0.132 | 0.151 | 0.141 | 0.126 | 0.110 | 0.102 | 0.071 | 0.039 | 0.029 | 0.028 | 0.011  |
| 206 | 0.135 | 0.155 | 0.144 | 0.129 | 0.113 | 0.105 | 0.073 | 0.040 | 0.029 | 0.028 | 0.011  |
| 205 | 0.140 | 0.160 | 0.149 | 0.133 | 0.116 | 0.108 | 0.075 | 0.041 | 0.030 | 0.030 | 0.011  |
| 204 | 0.144 | 0.164 | 0.153 | 0.137 | 0.120 | 0.111 | 0.077 | 0.042 | 0.031 | 0.030 | 0.011  |
| 203 | 0.147 | 0.169 | 0.157 | 0.140 | 0.122 | 0.113 | 0.079 | 0.043 | 0.032 | 0.032 | 0.011  |
| 202 | 0.151 | 0.172 | 0.161 | 0.144 | 0.125 | 0.116 | 0.081 | 0.045 | 0.034 | 0.033 | 0.011  |
| 201 | 0.154 | 0.176 | 0.164 | 0.147 | 0.128 | 0.119 | 0.083 | 0.046 | 0.036 | 0.035 | 0.011  |
| 200 | 0.157 | 0.179 | 0.167 | 0.150 | 0.131 | 0.122 | 0.085 | 0.048 | 0.038 | 0.038 | 0.011  |
| 199 | 0.159 | 0.182 | 0.170 | 0.153 | 0.133 | 0.124 | 0.088 | 0.050 | 0.040 | 0.041 | 0.010  |
| 198 | 0.162 | 0.185 | 0.173 | 0.156 | 0.136 | 0.127 | 0.091 | 0.053 | 0.044 | 0.046 | 0.010  |
| 197 | 0.164 | 0.186 | 0.174 | 0.158 | 0.138 | 0.130 | 0.094 | 0.057 | 0.049 | 0.053 | 0.009  |
| 196 | 0.166 | 0.187 | 0.176 | 0.160 | 0.141 | 0.133 | 0.098 | 0.062 | 0.056 | 0.062 | 0.008  |
| 195 | 0.167 | 0.187 | 0.176 | 0.161 | 0.143 | 0.137 | 0.103 | 0.069 | 0.065 | 0.074 | 0.007  |
| 194 | 0.167 | 0.186 | 0.176 | 0.163 | 0.145 | 0.141 | 0.109 | 0.078 | 0.078 | 0.091 | 0.006  |
| 193 | 0.167 | 0.184 | 0.175 | 0.163 | 0.148 | 0.147 | 0.119 | 0.091 | 0.096 | 0.114 | 0.004  |
| 192 | 0.166 | 0.179 | 0.172 | 0.163 | 0.152 | 0.155 | 0.131 | 0.109 | 0.121 | 0.145 | 0.001  |
| 191 | 0.164 | 0.172 | 0.168 | 0.163 | 0.156 | 0.165 | 0.148 | 0.134 | 0.154 | 0.187 | -0.003 |
| 190 | 0.161 | 0.162 | 0.162 | 0.162 | 0.162 | 0.178 | 0.170 | 0.167 | 0.200 | 0.243 | -0.008 |

Figure 5: Chlb in methanol-water (1:1) prepared with the Chlb in MeOH for 20 mins before addition of water (Type A), 80 mins before addition of water (Type B) and where water was added to a one day old stock of Chlb in MeOH (Type C).

Figure 5(a): CD spectra (left, mdeg) and 5(b) absorption spectra (right).

| WL/nm | Type A  | Type B  | Type C | WL/nm | Type A | Type B | Type C |
|-------|---------|---------|--------|-------|--------|--------|--------|
| 550   | 0.55    | -2.29   | 2.50   | 540   | 0.052  | 0.040  | 0.052  |
| 549   | 0.54    | -2.32   | 2.85   | 539   | 0.053  | 0.040  | 0.052  |
| 548   | 0.70    | -2.42   | 2.91   | 538   | 0.052  | 0.040  | 0.052  |
| 547   | 0.75    | -2.29   | 2.97   | 537   | 0.053  | 0.039  | 0.053  |
| 546   | 0.89    | -2.30   | 3.43   | 536   | 0.053  | 0.039  | 0.053  |
| 545   | 1.37    | -2.14   | 3.78   | 535   | 0.053  | 0.039  | 0.052  |
| 544   | 1.68    | -2.35   | 4.39   | 534   | 0.053  | 0.039  | 0.053  |
| 543   | 1.90    | -2.23   | 4.64   | 533   | 0.054  | 0.040  | 0.053  |
| 542   | 2.35    | -2.26   | 4.78   | 532   | 0.054  | 0.040  | 0.053  |
| 541   | 2.75    | -2.48   | 5.11   | 531   | 0.055  | 0.040  | 0.053  |
| 540   | 2.93    | -2.50   | 5.10   | 530   | 0.055  | 0.040  | 0.053  |
| 539   | 3.33    | -2.47   | 5.29   | 529   | 0.056  | 0.041  | 0.054  |
| 538   | 3.60    | -2.51   | 5.57   | 528   | 0.057  | 0.041  | 0.054  |
| 537   | 3.80    | -2.60   | 5.62   | 527   | 0.057  | 0.041  | 0.055  |
| 536   | 4.26    | -2.90   | 5.74   | 526   | 0.058  | 0.041  | 0.055  |
| 535   | 4.56    | -3.15   | 6.08   | 525   | 0.059  | 0.042  | 0.056  |
| 534   | 4.88    | -3.44   | 6.59   | 524   | 0.060  | 0.043  | 0.057  |
| 533   | 5.26    | -3.16   | 7.08   | 523   | 0.061  | 0.043  | 0.058  |
| 532   | 5.41    | -3.23   | 7.67   | 522   | 0.062  | 0.044  | 0.059  |
| 531   | 5.40    | -3.38   | 7.88   | 521   | 0.063  | 0.044  | 0.060  |
| 530   | 5.33    | -3.63   | 8.19   | 520   | 0.064  | 0.046  | 0.061  |
| 529   | 5.37    | -3.98   | 8.60   | 519   | 0.066  | 0.046  | 0.062  |
| 528   | 5.51    | -4.53   | 9.12   | 518   | 0.068  | 0.047  | 0.063  |
| 527   | 5.37    | -4.77   | 9.55   | 517   | 0.069  | 0.048  | 0.065  |
| 526   | 5.11    | -5.32   | 10.21  | 516   | 0.071  | 0.050  | 0.066  |
| 525   | 4.87    | -5.90   | 10.56  | 515   | 0.073  | 0.051  | 0.068  |
| 524   | 4.33    | -6.51   | 11.15  | 514   | 0.075  | 0.053  | 0.070  |
| 523   | 3.91    | -7.21   | 11.67  | 513   | 0.077  | 0.054  | 0.072  |
| 522   | 3.45    | -8.07   | 12.22  | 512   | 0.080  | 0.056  | 0.074  |
| 521   | 2.64    | -8.78   | 12.99  | 511   | 0.082  | 0.058  | 0.076  |
| 520   | 1.62    | -9.71   | 13.64  | 510   | 0.085  | 0.060  | 0.079  |
| 519   | 0.59    | -10.80  | 14.47  | 509   | 0.088  | 0.063  | 0.081  |
| 518   | -0.77   | -11.88  | 15.31  | 508   | 0.091  | 0.065  | 0.084  |
| 517   | -2.53   | -13.20  | 16.18  | 507   | 0.095  | 0.068  | 0.087  |
| 516   | -4.57   | -14.72  | 17.17  | 506   | 0.098  | 0.071  | 0.090  |
| 515   | -6.99   | -16.61  | 18.35  | 505   | 0.102  | 0.074  | 0.094  |
| 514   | -9.80   | -18.88  | 19.56  | 504   | 0.106  | 0.078  | 0.097  |
| 513   | -12.94  | -21.21  | 20.54  | 503   | 0.110  | 0.081  | 0.101  |
| 512   | -16.62  | -24.03  | 21.61  | 502   | 0.115  | 0.086  | 0.105  |
| 511   | -21.02  | -26.98  | 22.49  | 501   | 0.119  | 0.090  | 0.109  |
| 510   | -26.00  | -30.34  | 23.54  | 500   | 0.124  | 0.094  | 0.113  |
| 509   | -31.62  | -34.12  | 24.76  | 499   | 0.129  | 0.099  | 0.118  |
| 508   | -37.97  | -38.06  | 26.28  | 498   | 0.134  | 0.104  | 0.122  |
| 507   | -44.96  | -42.29  | 27.61  | 497   | 0.140  | 0.110  | 0.127  |
| 506   | -52.89  | -47.08  | 28.93  | 496   | 0.145  | 0.116  | 0.133  |
| 505   | -61.55  | -52.40  | 30.10  | 495   | 0.150  | 0.121  | 0.138  |
| 504   | -70.96  | -58.22  | 31.19  | 494   | 0.155  | 0.127  | 0.143  |
| 503   | -81.10  | -64.36  | 32.08  | 493   | 0.160  | 0.133  | 0.149  |
| 502   | -91.83  | -70.49  | 32.87  | 492   | 0.166  | 0.139  | 0.154  |
| 501   | -102.82 | -76.72  | 33.54  | 491   | 0.170  | 0.145  | 0.160  |
| 500   | -114.22 | -82.94  | 34.06  | 490   | 0.175  | 0.152  | 0.166  |
| 499   | -125.44 | -88.95  | 34.35  | 489   | 0.179  | 0.158  | 0.171  |
| 498   | -136.61 | -94.56  | 34.35  | 488   | 0.184  | 0.164  | 0.177  |
| 497   | -147.23 | -99.37  | 34.07  | 487   | 0.187  | 0.169  | 0.183  |
| 496   | -157.06 | -103.23 | 33.42  | 486   | 0.190  | 0.174  | 0.189  |
| 495   | -165.46 | -105.74 | 32.37  | 485   | 0.193  | 0.179  | 0.194  |
| 494   | -172.24 | -106.63 | 30.99  | 484   | 0.196  | 0.184  | 0.200  |
| 493   | -176.91 | -105.74 | 29.24  | 483   | 0.198  | 0.187  | 0.205  |
| 492   | -179.22 | -102.91 | 27.19  | 482   | 0.199  | 0.191  | 0.210  |
| 491   | -178.90 | -98.03  | 24.59  | 481   | 0.200  | 0.193  | 0.215  |
| 490   | -176.16 | -91.36  | 21.65  | 480   | 0.201  | 0.195  | 0.219  |
| 489   | -170.96 | -82.89  | 18.50  | 479   | 0.201  | 0.197  | 0.224  |
| 488   | -163.73 | -72.87  | 15.09  | 478   | 0.201  | 0.198  | 0.228  |
| 487   | -154.93 | -62.04  | 11.46  | 477   | 0.200  | 0.198  | 0.232  |
| 486   | -144.65 | -50.70  | 7.83   | 476   | 0.200  | 0.198  | 0.235  |
| 485   | -133.40 | -39.18  | 3.68   | 475   | 0.199  | 0.198  | 0.238  |
| 484   | -121.65 | -28.32  | -0.27  | 474   | 0.198  | 0.197  | 0.242  |
| 483   | -109.79 | -18.32  | -4.43  | 473   | 0.197  | 0.196  | 0.244  |
| 482   | -98.32  | -9.27   | -8.70  | 472   | 0.196  | 0.195  | 0.246  |
| 481   | -87.75  | -1.69   | -12.81 | 471   | 0.195  | 0.194  | 0.249  |
| 480   | -78.20  | 4.53    | -16.77 | 470   | 0.193  | 0.193  | 0.250  |
| 479   | -69.83  | 9.50    | -20.65 | 469   | 0.193  | 0.192  | 0.251  |
| 478   | -62.48  | 13.06   | -24.20 | 468   | 0.192  | 0.192  | 0.252  |
| 477   | -56.13  | 15.56   | -27.71 | 467   | 0.191  | 0.191  | 0.253  |
| 476   | -50.83  | 17.08   | -30.97 | 466   | 0.190  | 0.190  | 0.254  |
| 475   | -46.49  | 17.77   | -33.95 | 465   | 0.190  | 0.190  | 0.254  |
| 474   | -42.97  | 18.09   | -36.71 | 464   | 0.189  | 0.189  | 0.254  |
| 473   | -40.16  | 17.85   | -39.16 | 463   | 0.189  | 0.189  | 0.253  |
| 472   | -38.11  | 17.39   | -41.38 | 462   | 0.188  | 0.189  | 0.253  |
| 471   | -36.48  | 16.79   | -43.43 | 461   | 0.188  | 0.189  | 0.252  |
| 470   | -35.29  | 16.12   | -45.11 | 460   | 0.187  | 0.188  | 0.251  |
| 469   | -34.37  | 15.60   | -46.69 | 459   | 0.187  | 0.188  | 0.249  |
| 468   | -33.71  | 15.00   | -47.96 | 458   | 0.186  | 0.187  | 0.248  |
| 467   | -33.12  | 14.59   | -49.14 | 457   | 0.185  | 0.187  | 0.246  |
| 466   | -32.83  | 14.11   | -50.05 | 456   | 0.185  | 0.187  | 0.244  |
| 465   | -32.60  | 13.76   | -50.74 | 455   | 0.184  | 0.186  | 0.243  |
| 464   | -32.35  | 13.31   | -51.29 | 454   | 0.183  | 0.186  | 0.240  |
| 463   | -32.09  | 13.03   | -51.81 | 453   | 0.183  | 0.185  | 0.238  |

|     |        |       |        |     |       |       |       |
|-----|--------|-------|--------|-----|-------|-------|-------|
| 462 | -31.94 | 12.71 | -52.12 | 452 | 0.182 | 0.185 | 0.236 |
| 461 | -31.72 | 12.53 | -52.51 | 451 | 0.182 | 0.184 | 0.233 |
| 460 | -31.53 | 12.27 | -52.67 | 450 | 0.181 | 0.184 | 0.230 |
| 459 | -31.46 | 12.22 | -52.86 | 449 | 0.180 | 0.184 | 0.228 |
| 458 | -31.24 | 12.02 | -53.03 | 448 | 0.180 | 0.183 | 0.224 |
| 457 | -30.93 | 11.95 | -53.23 | 447 | 0.179 | 0.182 | 0.222 |
| 456 | -30.56 | 11.88 | -53.43 | 446 | 0.178 | 0.182 | 0.218 |
| 455 | -30.03 | 11.91 | -53.57 | 445 | 0.178 | 0.182 | 0.216 |
| 454 | -29.38 | 11.88 | -53.44 | 444 | 0.177 | 0.181 | 0.212 |
| 453 | -28.70 | 11.93 | -53.29 | 443 | 0.177 | 0.181 | 0.209 |
| 452 | -28.06 | 11.98 | -53.12 | 442 | 0.176 | 0.181 | 0.206 |
| 451 | -27.30 | 11.95 | -52.86 | 441 | 0.175 | 0.180 | 0.202 |
| 450 | -26.53 | 12.11 | -52.75 | 440 | 0.174 | 0.179 | 0.199 |
| 449 | -25.79 | 12.39 | -52.55 | 439 | 0.173 | 0.179 | 0.196 |
| 448 | -24.88 | 12.61 | -52.22 | 438 | 0.172 | 0.177 | 0.192 |
| 447 | -23.87 | 12.93 | -51.86 | 437 | 0.171 | 0.176 | 0.189 |
| 446 | -22.87 | 13.18 | -51.46 | 436 | 0.169 | 0.175 | 0.186 |
| 445 | -21.71 | 13.31 | -50.93 | 435 | 0.167 | 0.173 | 0.182 |
| 444 | -20.50 | 13.49 | -50.32 | 434 | 0.166 | 0.171 | 0.179 |
| 443 | -19.31 | 13.81 | -49.47 | 433 | 0.163 | 0.169 | 0.175 |
| 442 | -18.09 | 14.08 | -48.56 | 432 | 0.161 | 0.166 | 0.172 |
| 441 | -16.85 | 14.36 | -47.72 | 431 | 0.158 | 0.163 | 0.168 |
| 440 | -15.54 | 14.40 | -46.79 | 430 | 0.155 | 0.160 | 0.165 |
| 439 | -14.19 | 14.30 | -45.77 | 429 | 0.152 | 0.157 | 0.161 |
| 438 | -12.99 | 14.20 | -44.78 | 428 | 0.149 | 0.153 | 0.158 |
| 437 | -11.74 | 14.02 | -43.48 | 427 | 0.145 | 0.149 | 0.154 |
| 436 | -10.56 | 13.82 | -42.13 | 426 | 0.142 | 0.145 | 0.151 |
| 435 | -9.50  | 13.41 | -40.80 | 425 | 0.138 | 0.141 | 0.147 |
| 434 | -8.50  | 12.69 | -39.23 | 424 | 0.134 | 0.137 | 0.144 |
| 433 | -7.65  | 11.85 | -37.66 | 423 | 0.131 | 0.133 | 0.140 |
| 432 | -7.09  | 10.80 | -36.10 | 422 | 0.128 | 0.129 | 0.136 |
| 431 | -6.65  | 9.67  | -34.49 | 421 | 0.124 | 0.125 | 0.133 |
| 430 | -6.33  | 8.50  | -32.94 | 420 | 0.121 | 0.121 | 0.129 |
| 429 | -6.12  | 7.22  | -31.28 | 419 | 0.117 | 0.117 | 0.126 |
| 428 | -6.05  | 5.90  | -29.26 | 418 | 0.114 | 0.113 | 0.122 |
| 427 | -6.08  | 4.68  | -27.46 | 417 | 0.111 | 0.110 | 0.119 |
| 426 | -6.20  | 3.42  | -25.57 | 416 | 0.108 | 0.106 | 0.116 |
| 425 | -6.40  | 2.31  | -23.92 | 415 | 0.105 | 0.103 | 0.113 |
| 424 | -6.63  | 1.30  | -22.42 | 414 | 0.102 | 0.100 | 0.110 |
| 423 | -6.88  | 0.34  | -20.87 | 413 | 0.100 | 0.097 | 0.107 |
| 422 | -7.20  | -0.36 | -19.28 | 412 | 0.097 | 0.094 | 0.104 |
| 421 | -7.45  | -1.03 | -17.97 | 411 | 0.095 | 0.091 | 0.101 |
| 420 | -7.73  | -1.67 | -16.64 | 410 | 0.093 | 0.089 | 0.099 |
| 419 | -7.97  | -2.20 | -15.50 | 409 | 0.091 | 0.087 | 0.096 |
| 418 | -8.14  | -2.62 | -14.60 | 408 | 0.089 | 0.084 | 0.094 |
| 417 | -8.26  | -2.89 | -13.72 | 407 | 0.088 | 0.083 | 0.092 |
| 416 | -8.38  | -3.09 | -12.95 | 406 | 0.087 | 0.082 | 0.090 |
| 415 | -8.51  | -3.24 | -12.39 | 405 | 0.086 | 0.081 | 0.087 |
| 414 | -8.73  | -3.37 | -11.83 | 404 | 0.086 | 0.080 | 0.086 |
| 413 | -8.96  | -3.52 | -11.36 | 403 | 0.085 | 0.080 | 0.085 |
| 412 | -9.23  | -3.57 | -11.04 | 402 | 0.086 | 0.080 | 0.083 |
| 411 | -9.47  | -3.53 | -10.75 | 401 | 0.086 | 0.080 | 0.082 |
| 410 | -9.60  | -3.53 | -10.61 | 400 | 0.087 | 0.081 | 0.082 |
| 409 | -9.76  | -3.44 | -10.53 | 399 | 0.088 | 0.082 | 0.081 |
| 408 | -9.98  | -3.39 | -10.47 | 398 | 0.090 | 0.083 | 0.081 |
| 407 | -10.29 | -3.41 | -10.34 | 397 | 0.091 | 0.085 | 0.081 |
| 406 | -10.74 | -3.44 | -10.10 | 396 | 0.093 | 0.086 | 0.081 |
| 405 | -11.24 | -3.38 | -9.95  | 395 | 0.094 | 0.088 | 0.082 |
| 404 | -11.79 | -3.46 | -9.85  | 394 | 0.096 | 0.090 | 0.083 |
| 403 | -12.46 | -3.43 | -9.77  | 393 | 0.097 | 0.091 | 0.084 |
| 402 | -13.13 | -3.43 | -9.67  | 392 | 0.099 | 0.093 | 0.085 |
| 401 | -13.87 | -3.56 | -9.62  | 391 | 0.100 | 0.095 | 0.087 |
| 400 | -14.78 | -3.69 | -9.55  | 390 | 0.102 | 0.096 | 0.088 |
| 399 | -15.69 | -3.69 | -9.62  | 389 | 0.103 | 0.097 | 0.090 |
| 398 | -16.67 | -3.86 | -9.69  | 388 | 0.104 | 0.098 | 0.092 |
| 397 | -17.65 | -4.01 | -9.74  | 387 | 0.105 | 0.099 | 0.094 |
| 396 | -18.63 | -4.19 | -9.70  | 386 | 0.105 | 0.100 | 0.095 |
| 395 | -19.59 | -4.42 | -9.61  | 385 | 0.106 | 0.101 | 0.097 |
| 394 | -20.51 | -4.50 | -9.62  | 384 | 0.107 | 0.101 | 0.099 |
| 393 | -21.31 | -4.56 | -9.74  | 383 | 0.107 | 0.102 | 0.101 |
| 392 | -21.98 | -4.54 | -10.07 | 382 | 0.108 | 0.103 | 0.103 |
| 391 | -22.45 | -4.62 | -10.41 | 381 | 0.108 | 0.103 | 0.104 |
| 390 | -22.81 | -4.57 | -10.69 | 380 | 0.109 | 0.104 | 0.106 |
| 389 | -23.12 | -4.54 | -11.07 | 379 | 0.109 | 0.105 | 0.107 |
| 388 | -23.31 | -4.52 | -11.46 | 378 | 0.110 | 0.105 | 0.109 |
| 387 | -23.54 | -4.50 | -11.83 | 377 | 0.111 | 0.106 | 0.110 |
| 386 | -23.77 | -4.56 | -12.28 | 376 | 0.112 | 0.107 | 0.111 |
| 385 | -23.95 | -4.64 | -12.60 | 375 | 0.112 | 0.107 | 0.112 |
| 384 | -24.14 | -4.63 | -12.95 | 374 | 0.113 | 0.108 | 0.113 |
| 383 | -24.38 | -4.72 | -13.27 | 373 | 0.114 | 0.109 | 0.115 |
| 382 | -24.54 | -4.85 | -13.54 | 372 | 0.114 | 0.110 | 0.116 |
| 381 | -24.82 | -5.02 | -13.71 | 371 | 0.115 | 0.110 | 0.117 |
| 380 | -25.15 | -5.25 | -13.88 | 370 | 0.115 | 0.111 | 0.118 |
| 379 | -25.45 | -5.40 | -14.02 | 369 | 0.116 | 0.111 | 0.119 |
| 378 | -25.78 | -5.54 | -14.19 | 368 | 0.116 | 0.112 | 0.120 |
| 377 | -26.16 | -5.59 | -14.30 | 367 | 0.117 | 0.112 | 0.121 |
| 376 | -26.51 | -5.73 | -14.45 | 366 | 0.117 | 0.112 | 0.122 |
| 375 | -26.87 | -5.90 | -14.54 | 365 | 0.118 | 0.113 | 0.122 |
| 374 | -27.24 | -6.06 | -14.62 | 364 | 0.119 | 0.113 | 0.123 |
| 373 | -27.50 | -6.27 | -14.72 | 363 | 0.120 | 0.114 | 0.124 |
| 372 | -27.69 | -6.44 | -14.76 | 362 | 0.120 | 0.115 | 0.124 |
| 371 | -27.90 | -6.61 | -14.98 | 361 | 0.122 | 0.116 | 0.125 |
| 370 | -28.13 | -6.80 | -15.15 | 360 | 0.123 | 0.117 | 0.126 |
| 369 | -28.32 | -7.05 | -15.23 | 359 | 0.123 | 0.119 | 0.127 |
| 368 | -28.58 | -7.24 | -15.27 | 358 | 0.125 | 0.120 | 0.127 |
| 367 | -28.82 | -7.48 | -15.36 | 357 | 0.126 | 0.121 | 0.128 |
| 366 | -29.11 | -7.64 | -15.42 | 356 | 0.128 | 0.123 | 0.129 |
| 365 | -29.45 | -7.85 | -15.65 | 355 | 0.130 | 0.125 | 0.129 |
| 364 | -29.86 | -8.02 | -15.79 | 354 | 0.131 | 0.126 | 0.130 |



|     |        |       |        |     |       |       |       |
|-----|--------|-------|--------|-----|-------|-------|-------|
| 363 | -30.35 | -8.30 | -15.87 | 353 | 0.133 | 0.128 | 0.131 |
| 362 | -30.83 | -8.51 | -15.91 | 352 | 0.134 | 0.130 | 0.131 |
| 361 | -31.40 | -8.73 | -15.88 | 351 | 0.135 | 0.131 | 0.132 |
| 360 | -32.02 | -8.92 | -15.76 | 350 | 0.136 | 0.133 | 0.132 |
| 359 | -32.62 | -9.12 | -15.65 | 349 | 0.137 | 0.134 | 0.133 |
| 358 | -33.28 | -9.38 | -15.60 | 348 | 0.138 | 0.135 | 0.133 |
| 357 | -33.92 | -9.53 | -15.50 | 347 | 0.138 | 0.135 | 0.133 |
| 356 | -34.44 | -9.58 | -15.44 | 346 | 0.139 | 0.136 | 0.134 |
| 355 | -34.81 | -9.70 | -15.39 | 345 | 0.139 | 0.136 | 0.133 |
| 354 | -35.08 | -9.75 | -15.40 | 344 | 0.138 | 0.136 | 0.133 |
| 353 | -35.19 | -9.72 | -15.38 | 343 | 0.138 | 0.136 | 0.133 |
| 352 | -35.05 | -9.60 | -15.28 | 342 | 0.138 | 0.135 | 0.133 |
| 351 | -34.79 | -9.33 | -15.05 | 341 | 0.137 | 0.135 | 0.132 |
| 350 | -34.32 | -8.98 | -14.83 | 340 | 0.137 | 0.135 | 0.132 |
| 349 | -33.67 | -8.66 | -14.63 | 339 | 0.137 | 0.134 | 0.131 |
| 348 | -32.91 | -8.32 | -14.43 | 338 | 0.136 | 0.134 | 0.130 |
| 347 | -32.07 | -7.95 | -14.21 | 337 | 0.136 | 0.133 | 0.130 |
| 346 | -31.05 | -7.59 | -13.96 | 336 | 0.135 | 0.133 | 0.129 |
| 345 | -30.05 | -7.19 | -13.66 | 335 | 0.135 | 0.132 | 0.129 |
| 344 | -29.10 | -6.83 | -13.35 | 334 | 0.134 | 0.132 | 0.128 |
| 343 | -28.17 | -6.38 | -13.02 | 333 | 0.134 | 0.131 | 0.127 |
| 342 | -27.30 | -5.98 | -12.74 | 332 | 0.134 | 0.130 | 0.126 |
| 341 | -26.53 | -5.61 | -12.48 | 331 | 0.133 | 0.130 | 0.126 |
| 340 | -25.77 | -5.37 | -12.20 | 330 | 0.132 | 0.130 | 0.125 |
| 339 | -25.08 | -5.09 | -11.91 | 329 | 0.132 | 0.129 | 0.124 |
| 338 | -24.49 | -4.82 | -11.68 | 328 | 0.131 | 0.128 | 0.124 |
| 337 | -23.94 | -4.62 | -11.42 | 327 | 0.131 | 0.128 | 0.123 |
| 336 | -23.43 | -4.50 | -11.22 | 326 | 0.131 | 0.128 | 0.123 |
| 335 | -22.93 | -4.34 | -10.98 | 325 | 0.131 | 0.128 | 0.122 |
| 334 | -22.46 | -4.28 | -10.76 | 324 | 0.131 | 0.128 | 0.121 |
| 333 | -22.07 | -4.27 | -10.53 | 323 | 0.131 | 0.128 | 0.121 |
| 332 | -21.77 | -4.22 | -10.27 | 322 | 0.131 | 0.128 | 0.121 |
| 331 | -21.51 | -4.22 | -10.02 | 321 | 0.132 | 0.128 | 0.120 |
| 330 | -21.34 | -4.34 | -9.81  | 320 | 0.132 | 0.129 | 0.119 |
| 329 | -21.27 | -4.43 | -9.67  | 319 | 0.132 | 0.129 | 0.119 |
| 328 | -21.27 | -4.61 | -9.52  | 318 | 0.132 | 0.129 | 0.118 |
| 327 | -21.39 | -4.77 | -9.34  | 317 | 0.132 | 0.129 | 0.118 |
| 326 | -21.51 | -4.92 | -9.16  | 316 | 0.132 | 0.129 | 0.117 |
| 325 | -21.62 | -5.09 | -8.99  | 315 | 0.132 | 0.129 | 0.117 |
| 324 | -21.68 | -5.28 | -8.82  | 314 | 0.131 | 0.129 | 0.116 |
| 323 | -21.69 | -5.52 | -8.75  | 313 | 0.130 | 0.128 | 0.115 |
| 322 | -21.61 | -5.75 | -8.70  | 312 | 0.130 | 0.127 | 0.115 |
| 321 | -21.46 | -5.93 | -8.67  | 311 | 0.129 | 0.126 | 0.114 |
| 320 | -21.17 | -6.01 | -8.69  | 310 | 0.128 | 0.125 | 0.114 |
| 319 | -20.72 | -6.03 | -8.75  | 309 | 0.126 | 0.124 | 0.113 |
| 318 | -20.08 | -6.07 | -8.78  | 308 | 0.125 | 0.122 | 0.112 |
| 317 | -19.28 | -6.07 | -8.92  | 307 | 0.124 | 0.121 | 0.111 |
| 316 | -18.34 | -6.09 | -9.02  | 306 | 0.123 | 0.119 | 0.111 |
| 315 | -17.42 | -6.08 | -9.23  | 305 | 0.121 | 0.118 | 0.110 |
| 314 | -16.33 | -5.96 | -9.45  | 304 | 0.120 | 0.116 | 0.109 |
| 313 | -15.15 | -5.90 | -9.73  | 303 | 0.118 | 0.114 | 0.108 |
| 312 | -13.98 | -5.80 | -10.03 | 302 | 0.117 | 0.112 | 0.107 |
| 311 | -12.78 | -5.61 | -10.44 | 301 | 0.115 | 0.110 | 0.106 |
| 310 | -11.59 | -5.48 | -10.80 | 300 | 0.113 | 0.109 | 0.105 |
| 309 | -10.51 | -5.38 | -11.12 | 299 | 0.112 | 0.107 | 0.103 |
| 308 | -9.42  | -5.25 | -11.50 | 298 | 0.110 | 0.105 | 0.102 |
| 307 | -8.48  | -5.20 | -11.87 | 297 | 0.109 | 0.103 | 0.101 |
| 306 | -7.59  | -5.10 | -12.31 | 296 | 0.107 | 0.101 | 0.100 |
| 305 | -6.71  | -4.94 | -12.75 | 295 | 0.106 | 0.099 | 0.099 |
| 304 | -6.00  | -4.73 | -13.23 | 294 | 0.104 | 0.098 | 0.098 |
| 303 | -5.30  | -4.53 | -13.68 | 293 | 0.103 | 0.096 | 0.097 |
| 302 | -4.69  | -4.33 | -14.12 | 292 | 0.102 | 0.095 | 0.096 |
| 301 | -4.18  | -4.17 | -14.48 | 291 | 0.101 | 0.093 | 0.095 |
| 300 | -3.65  | -4.00 | -14.72 | 290 | 0.100 | 0.092 | 0.094 |
| 299 | -3.19  | -3.83 | -14.88 | 289 | 0.098 | 0.091 | 0.094 |
| 298 | -2.81  | -3.59 | -14.93 | 288 | 0.097 | 0.090 | 0.093 |
| 297 | -2.52  | -3.35 | -14.96 | 287 | 0.097 | 0.088 | 0.092 |
| 296 | -2.33  | -3.19 | -14.89 | 286 | 0.096 | 0.087 | 0.092 |
| 295 | -2.21  | -3.06 | -14.62 | 285 | 0.095 | 0.086 | 0.091 |
| 294 | -2.19  | -2.93 | -14.25 | 284 | 0.094 | 0.086 | 0.091 |
| 293 | -2.20  | -2.80 | -13.74 | 283 | 0.094 | 0.085 | 0.091 |
| 292 | -2.24  | -2.68 | -13.25 | 282 | 0.094 | 0.084 | 0.091 |
| 291 | -2.39  | -2.52 | -12.83 | 281 | 0.094 | 0.084 | 0.091 |
| 290 | -2.57  | -2.44 | -12.36 | 280 | 0.094 | 0.084 | 0.091 |
| 289 | -2.79  | -2.30 | -11.76 | 279 | 0.094 | 0.084 | 0.092 |
| 288 | -3.09  | -2.24 | -11.18 | 278 | 0.095 | 0.085 | 0.092 |
| 287 | -3.35  | -2.20 | -10.61 | 277 | 0.096 | 0.086 | 0.094 |
| 286 | -3.65  | -2.18 | -10.16 | 276 | 0.098 | 0.088 | 0.095 |
| 285 | -4.05  | -2.16 | -9.83  | 275 | 0.100 | 0.090 | 0.096 |
| 284 | -4.56  | -2.13 | -9.60  | 274 | 0.102 | 0.092 | 0.098 |
| 283 | -5.12  | -2.03 | -9.32  | 273 | 0.104 | 0.094 | 0.100 |
| 282 | -5.79  | -2.03 | -9.05  | 272 | 0.107 | 0.097 | 0.102 |
| 281 | -6.54  | -2.01 | -8.88  | 271 | 0.109 | 0.099 | 0.104 |
| 280 | -7.34  | -2.12 | -8.89  | 270 | 0.111 | 0.102 | 0.106 |
| 279 | -8.26  | -2.29 | -9.09  | 269 | 0.114 | 0.105 | 0.109 |
| 278 | -9.26  | -2.39 | -9.42  | 268 | 0.116 | 0.107 | 0.110 |
| 277 | -10.39 | -2.61 | -9.75  | 267 | 0.118 | 0.109 | 0.112 |
| 276 | -11.60 | -2.82 | -10.09 | 266 | 0.120 | 0.111 | 0.114 |
| 275 | -12.88 | -2.95 | -10.48 | 265 | 0.122 | 0.114 | 0.115 |
| 274 | -14.13 | -3.12 | -10.90 | 264 | 0.124 | 0.116 | 0.117 |
| 273 | -15.37 | -3.34 | -11.27 | 263 | 0.126 | 0.118 | 0.118 |
| 272 | -16.57 | -3.57 | -11.57 | 262 | 0.127 | 0.120 | 0.119 |
| 271 | -17.67 | -3.88 | -11.81 | 261 | 0.128 | 0.121 | 0.120 |
| 270 | -18.68 | -4.16 | -12.03 | 260 | 0.130 | 0.123 | 0.120 |
| 269 | -19.64 | -4.43 | -12.28 | 259 | 0.131 | 0.125 | 0.121 |
| 268 | -20.47 | -4.66 | -12.51 | 258 | 0.132 | 0.126 | 0.121 |
| 267 | -21.20 | -4.87 | -12.64 | 257 | 0.133 | 0.127 | 0.122 |
| 266 | -21.91 | -5.06 | -12.67 | 256 | 0.133 | 0.128 | 0.122 |
| 265 | -22.48 | -5.18 | -12.73 | 255 | 0.134 | 0.128 | 0.122 |

|     |        |        |        |     |       |       |       |
|-----|--------|--------|--------|-----|-------|-------|-------|
| 264 | -22.95 | -5.24  | -12.78 | 254 | 0.134 | 0.129 | 0.122 |
| 263 | -23.43 | -5.41  | -12.90 | 253 | 0.134 | 0.129 | 0.121 |
| 262 | -23.79 | -5.68  | -13.00 | 252 | 0.134 | 0.129 | 0.121 |
| 261 | -24.03 | -5.97  | -13.08 | 251 | 0.135 | 0.129 | 0.120 |
| 260 | -24.16 | -6.33  | -13.13 | 250 | 0.135 | 0.129 | 0.120 |
| 259 | -24.16 | -6.72  | -13.09 | 249 | 0.134 | 0.129 | 0.119 |
| 258 | -24.05 | -7.09  | -12.99 | 248 | 0.134 | 0.129 | 0.118 |
| 257 | -23.99 | -7.43  | -12.85 | 247 | 0.134 | 0.129 | 0.118 |
| 256 | -23.84 | -7.90  | -12.67 | 246 | 0.133 | 0.128 | 0.117 |
| 255 | -23.60 | -8.27  | -12.54 | 245 | 0.132 | 0.128 | 0.116 |
| 254 | -23.19 | -8.76  | -12.49 | 244 | 0.132 | 0.127 | 0.116 |
| 253 | -22.71 | -9.27  | -12.33 | 243 | 0.132 | 0.127 | 0.115 |
| 252 | -22.20 | -9.77  | -12.07 | 242 | 0.132 | 0.127 | 0.114 |
| 251 | -21.69 | -10.23 | -11.66 | 241 | 0.131 | 0.127 | 0.114 |
| 250 | -21.15 | -10.64 | -11.24 | 240 | 0.131 | 0.127 | 0.113 |
| 249 | -20.51 | -11.04 | -10.88 | 239 | 0.131 | 0.126 | 0.113 |
| 248 | -19.72 | -11.49 | -10.52 | 238 | 0.130 | 0.127 | 0.112 |
| 247 | -18.90 | -11.87 | -10.18 | 237 | 0.130 | 0.126 | 0.112 |
| 246 | -18.03 | -12.22 | -9.62  | 236 | 0.130 | 0.126 | 0.112 |
| 245 | -17.09 | -12.45 | -8.97  | 235 | 0.130 | 0.126 | 0.112 |
| 244 | -16.22 | -12.55 | -8.37  | 234 | 0.129 | 0.125 | 0.112 |
| 243 | -15.29 | -12.56 | -7.82  | 233 | 0.129 | 0.125 | 0.112 |
| 242 | -14.28 | -12.46 | -7.34  | 232 | 0.128 | 0.124 | 0.112 |
| 241 | -13.25 | -12.27 | -6.88  | 231 | 0.128 | 0.124 | 0.112 |
| 240 | -12.17 | -12.00 | -6.32  | 230 | 0.127 | 0.123 | 0.111 |
| 239 | -11.03 | -11.67 | -5.69  | 229 | 0.126 | 0.122 | 0.111 |
| 238 | -9.89  | -11.37 | -5.09  | 228 | 0.125 | 0.121 | 0.111 |
| 237 | -8.70  | -11.08 | -4.48  | 227 | 0.124 | 0.120 | 0.111 |
| 236 | -7.44  | -10.70 | -3.83  | 226 | 0.123 | 0.119 | 0.111 |
| 235 | -6.11  | -10.28 | -3.09  | 225 | 0.122 | 0.118 | 0.111 |
| 234 | -4.81  | -9.79  | -2.36  | 224 | 0.121 | 0.116 | 0.111 |
| 233 | -3.52  | -9.33  | -1.57  | 223 | 0.120 | 0.115 | 0.111 |
| 232 | -2.29  | -8.92  | -0.66  | 222 | 0.119 | 0.113 | 0.111 |
| 231 | -1.16  | -8.52  | 0.33   | 221 | 0.118 | 0.112 | 0.110 |
| 230 | -0.08  | -8.15  | 1.32   | 220 | 0.117 | 0.111 | 0.111 |
| 229 | 0.77   | -7.93  | 2.21   | 219 | 0.116 | 0.110 | 0.110 |
| 228 | 1.50   | -7.65  | 3.16   | 218 | 0.115 | 0.109 | 0.111 |
| 227 | 2.13   | -7.51  | 4.11   | 217 | 0.115 | 0.108 | 0.111 |
| 226 | 2.63   | -7.29  | 5.18   | 216 | 0.114 | 0.108 | 0.111 |
| 225 | 3.00   | -7.05  | 6.15   | 215 | 0.115 | 0.108 | 0.112 |
| 224 | 3.29   | -6.83  | 7.03   | 214 | 0.115 | 0.108 | 0.113 |
| 223 | 3.36   | -6.65  | 7.71   | 213 | 0.116 | 0.109 | 0.114 |
| 222 | 3.40   | -6.46  | 8.43   | 212 | 0.118 | 0.111 | 0.116 |
| 221 | 3.48   | -6.42  | 9.03   | 211 | 0.119 | 0.113 | 0.118 |
| 220 | 3.41   | -6.25  | 9.63   | 210 | 0.122 | 0.115 | 0.120 |
| 219 | 3.25   | -6.08  | 9.96   | 209 | 0.125 | 0.118 | 0.123 |
| 218 | 3.03   | -5.90  | 10.29  | 208 | 0.128 | 0.122 | 0.126 |
| 217 | 2.63   | -5.74  | 10.44  | 207 | 0.132 | 0.126 | 0.129 |
| 216 | 2.21   | -5.54  | 10.58  | 206 | 0.135 | 0.130 | 0.133 |
| 215 | 1.76   | -5.45  | 10.53  | 205 | 0.140 | 0.134 | 0.136 |
| 214 | 1.24   | -5.37  | 10.56  | 204 | 0.144 | 0.139 | 0.139 |
| 213 | 0.63   | -5.30  | 10.41  | 203 | 0.147 | 0.143 | 0.143 |
| 212 | -0.01  | -5.30  | 10.28  | 202 | 0.151 | 0.147 | 0.145 |
| 211 | -0.84  | -5.38  | 10.07  | 201 | 0.154 | 0.150 | 0.147 |
| 210 | -1.63  | -5.44  | 9.88   | 200 | 0.157 | 0.154 | 0.149 |
| 209 | -2.36  | -5.57  | 9.55   | 199 | 0.159 | 0.157 | 0.151 |
| 208 | -3.15  | -5.60  | 9.27   | 198 | 0.162 | 0.159 | 0.152 |
| 207 | -3.95  | -5.77  | 9.06   | 197 | 0.164 | 0.162 | 0.153 |
| 206 | -4.78  | -5.99  | 8.86   | 196 | 0.166 | 0.164 | 0.154 |
| 205 | -5.54  | -6.25  | 8.65   | 195 | 0.167 | 0.165 | 0.154 |
| 204 | -6.24  | -6.56  | 8.39   | 194 | 0.167 | 0.167 | 0.153 |
| 203 | -6.96  | -6.96  | 8.16   | 193 | 0.167 | 0.169 | 0.152 |
| 202 | -7.68  | -7.32  | 7.91   | 192 | 0.166 | 0.170 | 0.149 |
| 201 | -8.31  | -7.74  | 7.80   | 191 | 0.164 | 0.171 | 0.146 |
| 200 | -8.96  | -8.18  | 7.69   | 190 | 0.161 | 0.172 | 0.140 |
| 199 | -9.55  | -8.57  | 7.50   |     |       |       |       |
| 198 | -10.03 | -8.92  | 7.24   |     |       |       |       |
| 197 | -10.50 | -9.29  | 7.05   |     |       |       |       |
| 196 | -10.80 | -9.63  | 6.90   |     |       |       |       |
| 195 | -11.02 | -9.97  | 6.78   |     |       |       |       |
| 194 | -11.12 | -10.26 | 6.62   |     |       |       |       |
| 193 | -11.15 | -10.55 | 6.34   |     |       |       |       |
| 192 | -11.07 | -10.82 | 6.09   |     |       |       |       |
| 191 | -11.00 | -11.11 | 5.87   |     |       |       |       |
| 190 | -10.83 | -11.28 | 5.63   |     |       |       |       |
| 189 | -10.64 | -11.31 | 5.38   |     |       |       |       |
| 188 | -10.25 | -11.26 | 5.19   |     |       |       |       |
| 187 | -9.73  | -11.28 | 4.90   |     |       |       |       |
| 186 | -9.21  | -11.07 | 4.50   |     |       |       |       |
| 185 | -8.61  | -11.00 | 4.33   |     |       |       |       |
| 184 | -7.85  | -10.88 | 3.99   |     |       |       |       |
| 183 | -7.46  | -10.64 | 3.41   |     |       |       |       |
| 182 | -6.68  | -10.33 | 3.27   |     |       |       |       |

Figure 6: Chlb in methanol-water (1:1) measured 10 minutes to 15 hours after addition of water. Chlb was dissolved in methanol one day before the water was added.

Figure 6(a): CD spectra (mdeg) – Every third scan and final scan tabulated below.

| WL/nm | 16 min | 71 min | 128 min | 184 min | 240 min | 297 min | 353 min | 409 min | 465 min | 521 min | 577 min | 634 min | 936 min |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 550   | 0.41   | 0.35   | -0.25   | -0.24   | -0.05   | -0.20   | 0.43    | 0.73    | 0.70    | 1.62    | 1.46    | 1.74    | 2.50    |
| 549   | 0.07   | -0.10  | -0.24   | -0.55   | -0.26   | 0.24    | 0.35    | 0.75    | 0.80    | 1.74    | 1.58    | 2.11    | 2.85    |
| 548   | -0.16  | 0.17   | -0.08   | -0.51   | -0.29   | 0.27    | 0.56    | 0.50    | 0.91    | 1.78    | 1.87    | 2.35    | 2.91    |
| 547   | -0.03  | 0.19   | -0.10   | -0.58   | -0.14   | 0.32    | 0.37    | 0.54    | 1.39    | 1.34    | 2.11    | 2.17    | 2.97    |
| 546   | 0.00   | 0.29   | -0.22   | -0.78   | 0.05    | 0.43    | 0.19    | 0.52    | 1.77    | 1.38    | 2.09    | 2.38    | 3.43    |
| 545   | 0.00   | 0.28   | -0.34   | -0.84   | 0.00    | -0.05   | 0.56    | 0.68    | 2.13    | 1.65    | 2.19    | 2.43    | 3.78    |
| 544   | 0.16   | 0.12   | -0.02   | -0.71   | -0.07   | -0.44   | 0.61    | 0.77    | 2.03    | 1.88    | 2.26    | 2.61    | 4.39    |
| 543   | -0.01  | -0.34  | -0.11   | -0.73   | -0.18   | -0.30   | 0.89    | 1.11    | 1.83    | 1.65    | 2.22    | 2.79    | 4.64    |
| 542   | -0.01  | -0.14  | -0.22   | -0.55   | -0.39   | -0.25   | 0.90    | 0.80    | 1.45    | 1.84    | 2.37    | 2.94    | 4.78    |
| 541   | -0.07  | 0.15   | -0.28   | -0.17   | -0.63   | -0.15   | 0.71    | 0.66    | 1.82    | 2.02    | 2.74    | 2.60    | 5.11    |
| 540   | -0.23  | 0.46   | -0.26   | -0.02   | -0.53   | -0.03   | 0.36    | 0.64    | 1.77    | 2.21    | 2.79    | 2.93    | 5.10    |
| 539   | -0.37  | 0.58   | 0.04    | -0.01   | -0.51   | -0.09   | -0.10   | 0.89    | 1.80    | 2.31    | 2.83    | 3.17    | 5.29    |
| 538   | -0.32  | 0.35   | 0.11    | -0.10   | -0.23   | -0.05   | -0.17   | 1.19    | 1.66    | 2.50    | 2.68    | 3.64    | 5.57    |
| 537   | -0.39  | 0.16   | 0.07    | -0.41   | 0.09    | -0.19   | 0.37    | 1.50    | 1.75    | 2.45    | 2.81    | 3.67    | 5.62    |
| 536   | -0.02  | -0.36  | 0.01    | -0.56   | -0.07   | -0.30   | 0.56    | 1.28    | 1.58    | 2.66    | 2.76    | 3.82    | 5.74    |
| 535   | -0.12  | -0.40  | -0.07   | -0.60   | -0.41   | -0.48   | 0.78    | 0.81    | 1.71    | 2.67    | 2.91    | 3.59    | 6.08    |
| 534   | -0.01  | -0.41  | 0.00    | -0.52   | -0.42   | -0.54   | 0.73    | 0.63    | 1.68    | 2.67    | 2.99    | 3.82    | 6.59    |
| 533   | -0.09  | -0.66  | 0.05    | -0.29   | -0.55   | -0.37   | 0.33    | 0.72    | 2.11    | 2.76    | 3.12    | 4.04    | 7.08    |
| 532   | -0.06  | -0.40  | -0.16   | -0.32   | -0.55   | -0.20   | 0.44    | 1.01    | 2.20    | 2.92    | 3.23    | 4.74    | 7.67    |
| 531   | 0.24   | -0.02  | -0.17   | -0.28   | -0.62   | -0.04   | 0.64    | 1.22    | 2.43    | 3.11    | 3.83    | 4.91    | 7.88    |
| 530   | 0.29   | -0.03  | -0.22   | -0.20   | -0.74   | -0.14   | 0.50    | 1.42    | 2.30    | 3.13    | 4.11    | 5.34    | 8.19    |
| 529   | 0.06   | 0.12   | 0.00    | -0.37   | -0.48   | -0.01   | 0.52    | 1.28    | 2.30    | 3.17    | 4.72    | 5.44    | 8.60    |
| 528   | 0.15   | -0.20  | -0.04   | -0.57   | -0.40   | -0.28   | 0.43    | 1.38    | 2.59    | 3.40    | 5.25    | 5.67    | 9.12    |
| 527   | 0.16   | -0.64  | -0.13   | -0.71   | -0.86   | -0.32   | 0.52    | 1.38    | 3.08    | 4.02    | 5.35    | 6.07    | 9.55    |
| 526   | 0.22   | -0.59  | -0.40   | -0.94   | -0.67   | -0.22   | 0.60    | 1.56    | 3.31    | 4.28    | 5.30    | 6.45    | 10.21   |
| 525   | 0.19   | -0.56  | -0.51   | -0.92   | -0.79   | -0.36   | 0.50    | 1.38    | 3.22    | 4.09    | 5.42    | 6.64    | 10.56   |
| 524   | -0.17  | -0.15  | -0.81   | -0.86   | -0.74   | -0.39   | 0.38    | 1.93    | 2.98    | 4.18    | 5.55    | 6.81    | 11.15   |
| 523   | -0.56  | -0.05  | -0.76   | -0.82   | -0.59   | -0.37   | 0.36    | 2.05    | 2.71    | 4.27    | 5.90    | 6.97    | 11.67   |
| 522   | -0.53  | 0.03   | -0.76   | -0.66   | -0.98   | -0.52   | 0.55    | 2.16    | 2.85    | 4.80    | 6.32    | 7.36    | 12.22   |
| 521   | -0.52  | -0.16  | -0.60   | -0.69   | -1.19   | -0.58   | 0.98    | 2.32    | 3.28    | 5.53    | 6.70    | 8.16    | 12.99   |
| 520   | -0.29  | -0.68  | -0.83   | -0.99   | -1.14   | -0.53   | 1.07    | 2.63    | 3.55    | 5.92    | 7.15    | 8.69    | 13.64   |
| 519   | -0.07  | -0.77  | -0.61   | -1.01   | -1.13   | -0.34   | 1.14    | 2.73    | 3.96    | 6.12    | 7.79    | 9.44    | 14.47   |
| 518   | 0.13   | -0.39  | -0.67   | -1.30   | -1.03   | -0.17   | 1.07    | 3.21    | 4.40    | 6.58    | 8.28    | 9.91    | 15.31   |
| 517   | 0.03   | -0.26  | -0.78   | -1.45   | -1.11   | -0.19   | 0.98    | 3.31    | 4.67    | 6.97    | 8.77    | 10.43   | 16.18   |
| 516   | 0.13   | -0.07  | -0.72   | -1.57   | -1.28   | -0.25   | 1.03    | 3.29    | 5.14    | 7.56    | 9.32    | 10.88   | 17.17   |
| 515   | -0.04  | -0.45  | -0.74   | -1.64   | -1.32   | -0.25   | 1.29    | 3.47    | 5.77    | 8.14    | 9.99    | 11.78   | 18.35   |
| 514   | 0.17   | -0.69  | -1.15   | -1.58   | -1.25   | -0.40   | 1.60    | 3.94    | 6.34    | 8.69    | 10.73   | 12.40   | 19.56   |
| 513   | 0.05   | -0.67  | -1.16   | -1.45   | -1.28   | -0.15   | 1.88    | 4.17    | 6.81    | 9.15    | 11.54   | 13.42   | 20.54   |
| 512   | 0.02   | -0.39  | -1.24   | -1.43   | -1.03   | 0.28    | 2.42    | 4.67    | 7.35    | 10.00   | 12.28   | 14.53   | 21.61   |
| 511   | -0.35  | -0.25  | -1.37   | -1.50   | -1.07   | 0.50    | 2.71    | 5.13    | 7.89    | 10.84   | 13.17   | 15.53   | 22.49   |
| 510   | -0.30  | -0.20  | -1.28   | -1.75   | -0.93   | 0.86    | 3.02    | 5.77    | 8.72    | 11.76   | 14.03   | 16.57   | 23.54   |
| 509   | -0.47  | -0.60  | -1.43   | -1.82   | -0.95   | 1.00    | 3.23    | 6.38    | 9.53    | 12.66   | 14.95   | 17.67   | 24.76   |
| 508   | -0.41  | -0.60  | -1.63   | -1.84   | -0.87   | 0.87    | 3.53    | 7.25    | 10.44   | 13.58   | 15.92   | 18.46   | 26.28   |
| 507   | -0.67  | -0.50  | -1.61   | -1.72   | -0.82   | 1.17    | 4.15    | 8.02    | 11.36   | 14.48   | 17.08   | 19.69   | 27.61   |
| 506   | -0.77  | -0.66  | -1.72   | -1.68   | -0.88   | 1.50    | 4.85    | 9.59    | 12.22   | 15.45   | 18.28   | 20.68   | 28.93   |
| 505   | -0.77  | -0.69  | -1.76   | -1.64   | -0.77   | 1.87    | 5.50    | 9.26    | 13.20   | 16.60   | 19.55   | 21.82   | 30.10   |
| 504   | -0.57  | -0.61  | -1.73   | -1.55   | -0.45   | 2.50    | 6.22    | 10.10   | 14.14   | 17.64   | 20.93   | 23.11   | 31.19   |
| 503   | -0.47  | -0.86  | -1.84   | -1.49   | -0.36   | 3.03    | 6.94    | 10.88   | 15.17   | 18.68   | 22.24   | 24.44   | 32.08   |
| 502   | -0.18  | -0.95  | -1.95   | -1.63   | -0.03   | 3.60    | 7.60    | 12.01   | 16.20   | 19.73   | 23.16   | 25.61   | 32.87   |
| 501   | -0.40  | -0.89  | -2.03   | -1.49   | 0.47    | 4.20    | 8.41    | 13.08   | 17.40   | 20.71   | 24.07   | 26.63   | 33.54   |
| 500   | -0.46  | -0.98  | -2.07   | -1.21   | 0.77    | 4.67    | 9.22    | 14.06   | 18.59   | 21.85   | 25.13   | 27.30   | 34.06   |
| 499   | -0.63  | -1.00  | -2.02   | -1.19   | 1.20    | 5.31    | 10.13   | 15.19   | 19.55   | 22.92   | 26.00   | 27.80   | 34.35   |
| 498   | -1.00  | -1.20  | -1.82   | -1.17   | 1.61    | 5.93    | 11.15   | 16.14   | 20.20   | 23.68   | 26.94   | 28.50   | 34.35   |
| 497   | -1.25  | -1.42  | -1.71   | -1.25   | 1.95    | 6.56    | 12.10   | 16.82   | 20.89   | 24.26   | 27.51   | 29.29   | 34.07   |
| 496   | -1.35  | -1.62  | -1.90   | -1.23   | 2.37    | 7.36    | 12.72   | 17.55   | 21.57   | 24.68   | 27.64   | 29.81   | 33.42   |
| 495   | -1.46  | -1.60  | -2.01   | -0.86   | 3.02    | 7.96    | 13.29   | 18.03   | 22.15   | 24.94   | 27.57   | 29.80   | 32.37   |
| 494   | -1.50  | -1.52  | -2.08   | -0.39   | 3.49    | 8.62    | 13.91   | 18.32   | 22.67   | 25.23   | 27.19   | 29.40   | 30.99   |
| 493   | -1.55  | -1.31  | -1.94   | -0.15   | 4.03    | 9.13    | 14.50   | 18.84   | 22.72   | 25.22   | 26.74   | 28.42   | 29.24   |
| 492   | -1.39  | -1.34  | -1.67   | 0.12    | 4.49    | 9.59    | 15.04   | 19.25   | 22.67   | 25.00   | 26.13   | 27.43   | 27.19   |
| 491   | -1.28  | -1.45  | -1.61   | 0.33    | 4.94    | 9.87    | 15.33   | 19.42   | 22.35   | 24.15   | 25.26   | 26.07   | 24.59   |
| 490   | -1.38  | -1.59  | -1.66   | 0.75    | 5.25    | 10.23   | 15.31   | 19.37   | 21.78   | 23.09   | 24.02   | 24.46   | 21.65   |
| 489   | -1.38  | -1.69  | -1.66   | 1.11    | 5.86    | 10.73   | 15.33   | 18.90   | 21.02   | 21.88   | 22.68   | 22.54   | 18.50   |
| 488   | -1.47  | -1.76  | -1.51   | 1.67    | 6.41    | 11.15   | 15.34   | 18.19   | 20.28   | 20.57   | 20.74   | 20.30   | 15.09   |
| 487   | -1.74  | -1.87  | -1.35   | 1.83    | 6.74    | 11.22   | 15.15   | 17.49   | 18.85   | 18.94   | 18.61   | 17.74   | 11.46   |
| 486   | -1.63  | -1.92  | -1.27   | 2.08    | 6.86    | 11.30   | 14.74   | 16.64   | 17.36   | 17.05   | 16.23   | 15.01   | 7.83    |
| 485   | -1.72  | -2.00  | -1.09   | 2.10    | 6.95    | 11.16   | 14.11   | 15.61   | 15.65   | 14.78   | 13.62   | 11.98   | 3.68    |
| 484   | -1.76  | -1.88  | -0.86   | 2.40    | 6.97    | 11.02   | 13.33   | 14.38   | 13.74   | 12.45   | 10.95   | 9.09    | -0.27   |
| 483   | -1.75  | -1.69  | -0.70   | 2.54    | 7.11    | 10.85   | 12.58   | 12.87   | 12.04   | 10.09   | 8.42    | 6.06    | -4.43   |
| 482   | -1.63  | -1.58  | -0.48   | 3.08    | 7.15    | 10.30   | 11.59   | 11.37   | 10.10   | 7.59    | 5.56    | 2.99    | -8.70   |
| 481   | -1.51  | -1.67  | -0.37   | 3.29    | 6.99    | 9.77    | 10.56   | 9.89    | 7.83    | 5.12    | 2.54    | -0.12   | -12.81  |
| 480   | -1.37  | -1.78  | -0.22   | 3.53    | 6.70    | 8.89    | 9.49    | 8.27    | 5.56    | 2.71    | -0.45   | -3.37   | -16.77  |
| 479   | -1.42  | -1.70  | 0.04    | 3.51    | 6.58    | 8.01    | 8.23    | 6.55    | 3.40    | 0.14    | -3.47   | -6.58   | -20.65  |
| 478   | -1.41  | -1.56  | 0.22    | 3.65    | 6.55    | 7.39    | 7.06    | 4.78    | 1.15    | -2.60   | -6.36   | -9.55   | -24.20  |
| 477   | -1.35  | -1.00  | 0.64    | 3.66    | 6.39    | 6.82    | 5.95    | 2.92    | -1.02   | -5.12   | -8.98   | -12.53  | -27.71  |
| 476   | -1.32  | -0.69  | 1.07    | 3.86    | 6.33    | 6.27    | 4.66    | 1.12    | -3.24   | -7.66   | -11.66  | -15.35  | -30.97  |
| 475   | -1.01  | -0.56  | 1.33    | 3.89    | 6.21    | 5.70    | 3.39    | -0.64   | -5.22   | -9.78   | -14.27  | -17.98  | -33.95  |
| 474   | -0.99  | -0.40  | 1.29    | 3.83    | 5.67    | 4.55    | 2.06    | -2.39   | -7.05   | -11.65  | -16.80  | -20.55  | -36.71  |
| 473   | -0.92  | -0.34  | 1.24    | 3.86    | 5.15    | 3.37    | 0.61    | -4.08   | -8.64   | -13.72  | -19.08  | -22.98  | -39.16  |
| 472   | -0.62  | -0.35  | 1.17    | 3.94    | 4.54    | 2.40    | -0.71   | -5.67   | -10.44  | -15.88  | -21.20  | -25.23  | -41.38  |
| 471   | -0.51  | -0.13  | 1.35    | 3.73    | 3.83    | 1.47    | -2.15   | -7.23   | -12.37  | -17.85  | -22.93  | -27.30  | -43.43  |
| 470   | -0.35  | -0.18  | 1.66    | 3.48    | 3.18    | 0.70    | -3.42   | -8.63   | -13.96  | -19.70  | -24.46  | -29.14  | -45.11  |
| 469   | -0.23  | -0.26  | 1.98    | 3.09    | 2.67    | -0.23   | -4.53   | -10.01  | -15.40  | -21.18  | -25.96  | -30.73  | -46.69  |
| 468   | -0.18  | -0.03  | 2.01    | 2.82    | 1.98    | -1.07   | -5.65   | -11.31  | -16.64  | -22.51  | -27.56  | -32.11  | -47.96  |
| 467   | -0.02  | 0.26   | 1.95    | 2.60    | 1.52    | -1.96   | -6.75   | -12.46  | -17.95  | -23.82  | -29.00  | -33.48  | -49.14  |
| 466   | 0.34   | 0.65   | 1.88    | 2.44    | 1.05    | -2.78   | -7.45   | -13.39  | -19.20  | -25.02  | -30.34  | -34.67  | -50.05  |
| 465   | 0.39   | 0.88   | 1.69    | 2.30    | 0.64    | -3.62   | -8.44   | -14.32  | -20.44  | -26.13  | -31.38  | -35.62  | -50.74  |
| 464   | 0.43   | 1.07   | 1.52    | 1.97    | 0.05    | -4.33   | -9.47   | -15.21  | -21.48  | -27.06  | -32.20  | -36.48  | -51.29  |
| 463   | 0.28   | 1.01   | 1.57    | 1.74    | -0.46   | -5.12   | -10.32  | -16.13  | -22.45  | -27.73  | -32.97  | -37.22  | -51.81  |
| 462   | 0.42   | 1.05   | 1.71    | 1.57    | -1.03   | -5.59   | -11.12  | -17.07  | -23.15  | -28.45  | -33.60  | -37.86  | -52.12  |

|     |      |      |       |       |       |        |        |        |        |        |        |        |        |
|-----|------|------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 461 | 0.46 | 1.13 | 1.80  | 1.13  | -1.43 | -6.19  | -11.84 | -17.93 | -23.86 | -29.31 | -34.20 | -38.39 | -52.51 |
| 460 | 0.53 | 1.19 | 1.87  | 0.92  | -1.92 | -6.78  | -12.21 | -18.68 | -24.43 | -29.93 | -34.65 | -38.95 | -52.67 |
| 459 | 0.57 | 1.22 | 1.85  | 0.84  | -2.24 | -7.26  | -13.03 | -19.21 | -25.16 | -30.58 | -35.19 | -39.40 | -52.86 |
| 458 | 0.73 | 1.47 | 1.90  | 0.78  | -2.60 | -7.80  | -13.76 | -19.60 | -25.78 | -31.00 | -35.41 | -39.70 | -53.03 |
| 457 | 0.82 | 1.51 | 1.86  | 0.47  | -3.03 | -8.35  | -14.27 | -19.99 | -26.31 | -31.27 | -35.69 | -39.99 | -53.23 |
| 456 | 0.91 | 1.51 | 1.74  | 0.06  | -3.54 | -8.77  | -14.66 | -20.20 | -26.61 | -31.51 | -35.89 | -40.41 | -53.43 |
| 455 | 0.90 | 1.36 | 1.57  | -0.51 | -3.97 | -9.08  | -14.89 | -20.55 | -26.79 | -31.82 | -36.25 | -40.61 | -53.57 |
| 454 | 0.95 | 1.41 | 1.33  | -0.92 | -4.41 | -9.33  | -15.02 | -21.00 | -26.88 | -32.01 | -36.60 | -40.78 | -53.44 |
| 453 | 0.99 | 1.38 | 1.16  | -1.02 | -4.70 | -9.58  | -15.44 | -21.35 | -27.11 | -32.27 | -37.00 | -40.86 | -53.29 |
| 452 | 1.06 | 1.36 | 1.16  | -0.88 | -5.12 | -9.96  | -15.81 | -21.83 | -27.49 | -32.49 | -37.14 | -40.80 | -53.12 |
| 451 | 1.22 | 1.50 | 1.28  | -0.89 | -5.30 | -10.30 | -16.08 | -22.13 | -27.76 | -32.55 | -37.04 | -40.79 | -52.86 |
| 450 | 1.24 | 1.56 | 1.27  | -0.88 | -5.52 | -10.61 | -16.42 | -22.33 | -27.97 | -32.58 | -36.90 | -40.89 | -52.75 |
| 449 | 1.28 | 1.48 | 1.05  | -1.17 | -5.62 | -10.81 | -16.72 | -22.36 | -28.16 | -32.58 | -36.88 | -40.87 | -52.55 |
| 448 | 1.45 | 1.47 | 0.95  | -1.42 | -5.68 | -10.97 | -16.83 | -22.36 | -28.06 | -32.64 | -37.02 | -40.74 | -52.22 |
| 447 | 1.52 | 1.38 | 0.87  | -1.49 | -5.71 | -11.20 | -16.92 | -22.36 | -27.86 | -32.61 | -36.95 | -40.61 | -51.86 |
| 446 | 1.49 | 1.42 | 0.85  | -1.60 | -5.96 | -11.21 | -16.99 | -22.45 | -27.70 | -32.49 | -36.74 | -40.27 | -51.46 |
| 445 | 1.56 | 1.53 | 1.04  | -1.75 | -6.15 | -11.45 | -17.08 | -22.44 | -27.65 | -32.25 | -36.35 | -39.95 | -50.93 |
| 444 | 1.65 | 1.83 | 1.03  | -1.78 | -6.16 | -11.52 | -17.07 | -22.37 | -27.73 | -32.08 | -36.11 | -39.58 | -50.32 |
| 443 | 1.69 | 1.86 | 0.90  | -1.88 | -6.14 | -11.62 | -17.02 | -22.18 | -27.60 | -31.74 | -35.90 | -39.17 | -49.47 |
| 442 | 1.74 | 1.76 | 0.81  | -1.98 | -6.10 | -11.64 | -16.90 | -22.10 | -27.28 | -31.47 | -35.58 | -38.71 | -48.56 |
| 441 | 1.67 | 1.60 | 0.73  | -2.04 | -6.20 | -11.56 | -16.80 | -21.94 | -26.87 | -31.13 | -34.99 | -38.28 | -47.72 |
| 440 | 1.43 | 1.55 | 0.69  | -2.13 | -6.30 | -11.42 | -16.72 | -21.72 | -26.42 | -30.68 | -34.24 | -37.54 | -46.79 |
| 439 | 1.42 | 1.49 | 0.65  | -2.15 | -6.44 | -11.28 | -16.38 | -21.45 | -26.03 | -30.17 | -33.44 | -36.68 | -45.77 |
| 438 | 1.46 | 1.67 | 0.65  | -2.11 | -6.42 | -11.02 | -16.01 | -20.93 | -25.64 | -29.62 | -32.57 | -35.79 | -44.78 |
| 437 | 1.49 | 1.72 | 0.60  | -1.96 | -6.25 | -10.94 | -15.65 | -20.36 | -25.05 | -28.76 | -31.80 | -34.84 | -43.48 |
| 436 | 1.54 | 1.72 | 0.52  | -1.91 | -6.08 | -10.71 | -15.33 | -19.88 | -24.30 | -27.85 | -30.90 | -33.80 | -42.13 |
| 435 | 1.65 | 1.65 | 0.62  | -1.95 | -5.88 | -10.49 | -15.10 | -19.27 | -23.58 | -26.98 | -29.88 | -32.87 | -40.80 |
| 434 | 1.56 | 1.60 | 0.62  | -1.98 | -5.66 | -10.46 | -14.72 | -18.65 | -22.93 | -25.98 | -28.93 | -31.67 | -39.23 |
| 433 | 1.59 | 1.55 | 0.48  | -1.94 | -5.62 | -10.11 | -14.34 | -18.11 | -22.28 | -25.19 | -27.96 | -30.39 | -37.66 |
| 432 | 1.63 | 1.55 | 0.42  | -1.90 | -5.54 | -9.73  | -13.86 | -17.47 | -21.41 | -24.30 | -26.85 | -29.16 | -36.10 |
| 431 | 1.56 | 1.35 | 0.30  | -1.81 | -5.33 | -9.39  | -13.31 | -16.84 | -20.47 | -23.33 | -25.91 | -27.88 | -34.49 |
| 430 | 1.45 | 1.13 | 0.19  | -1.73 | -5.14 | -8.85  | -12.70 | -16.29 | -19.50 | -22.25 | -24.78 | -26.56 | -32.94 |
| 429 | 1.32 | 1.03 | 0.19  | -1.78 | -4.87 | -8.36  | -12.07 | -15.62 | -18.54 | -21.17 | -23.55 | -25.27 | -31.28 |
| 428 | 1.18 | 1.04 | 0.11  | -1.69 | -4.73 | -8.06  | -11.41 | -14.84 | -17.58 | -20.03 | -22.24 | -23.79 | -29.26 |
| 427 | 0.96 | 1.19 | 0.10  | -1.59 | -4.64 | -7.69  | -10.74 | -13.94 | -16.63 | -18.98 | -20.90 | -22.41 | -27.46 |
| 426 | 1.03 | 1.25 | 0.20  | -1.53 | -4.35 | -7.31  | -10.23 | -13.09 | -15.64 | -17.79 | -19.63 | -21.07 | -25.57 |
| 425 | 1.03 | 1.24 | 0.31  | -1.47 | -3.94 | -6.89  | -9.71  | -12.28 | -14.63 | -16.35 | -18.35 | -19.85 | -23.92 |
| 424 | 1.14 | 1.14 | 0.24  | -1.38 | -3.68 | -6.52  | -9.15  | -11.61 | -13.78 | -15.59 | -17.14 | -18.62 | -22.42 |
| 423 | 1.10 | 1.01 | 0.20  | -1.33 | -3.53 | -6.02  | -8.60  | -10.93 | -12.95 | -14.57 | -16.07 | -17.40 | -20.87 |
| 422 | 1.13 | 0.89 | 0.14  | -1.25 | -3.46 | -5.69  | -8.15  | -10.29 | -12.21 | -13.58 | -14.93 | -16.20 | -19.28 |
| 421 | 1.00 | 0.93 | 0.25  | -1.16 | -3.36 | -5.31  | -7.64  | -9.62  | -11.45 | -12.66 | -13.96 | -15.09 | -17.97 |
| 420 | 1.05 | 0.93 | 0.35  | -1.17 | -3.00 | -4.97  | -7.25  | -9.01  | -10.68 | -11.80 | -13.06 | -13.99 | -16.64 |
| 419 | 1.01 | 1.05 | 0.39  | -1.07 | -2.69 | -4.75  | -6.82  | -8.40  | -9.89  | -11.03 | -12.20 | -13.05 | -15.50 |
| 418 | 1.04 | 1.10 | 0.29  | -1.01 | -2.62 | -4.52  | -6.35  | -7.89  | -9.21  | -10.44 | -11.44 | -12.19 | -14.60 |
| 417 | 0.94 | 1.02 | 0.27  | -1.01 | -2.47 | -4.28  | -5.91  | -7.41  | -8.62  | -9.84  | -10.76 | -11.46 | -13.72 |
| 416 | 0.87 | 0.91 | 0.22  | -0.92 | -2.39 | -4.07  | -5.45  | -6.92  | -8.09  | -9.21  | -10.09 | -10.82 | -12.95 |
| 415 | 0.79 | 0.75 | 0.25  | -0.96 | -2.35 | -3.82  | -5.25  | -6.59  | -7.68  | -8.68  | -9.60  | -10.37 | -12.39 |
| 414 | 0.81 | 0.64 | 0.25  | -1.06 | -2.10 | -3.69  | -5.09  | -6.30  | -7.30  | -8.30  | -9.29  | -9.88  | -11.83 |
| 413 | 0.71 | 0.64 | 0.22  | -0.98 | -2.04 | -3.68  | -4.98  | -6.11  | -7.05  | -8.10  | -9.03  | -9.54  | -11.36 |
| 412 | 0.57 | 0.61 | 0.13  | -0.89 | -2.11 | -3.57  | -4.95  | -5.98  | -7.01  | -7.98  | -8.72  | -9.33  | -11.04 |
| 411 | 0.47 | 0.59 | 0.10  | -0.99 | -2.11 | -3.62  | -4.83  | -5.98  | -7.03  | -7.85  | -8.52  | -9.14  | -10.75 |
| 410 | 0.38 | 0.66 | 0.07  | -0.86 | -2.16 | -3.67  | -4.74  | -5.91  | -6.93  | -7.76  | -8.31  | -9.00  | -10.61 |
| 409 | 0.41 | 0.62 | 0.09  | -0.88 | -2.27 | -3.61  | -4.67  | -5.85  | -6.83  | -7.63  | -8.17  | -8.93  | -10.53 |
| 408 | 0.51 | 0.51 | -0.03 | -0.94 | -2.18 | -3.58  | -4.62  | -5.71  | -6.75  | -7.48  | -8.11  | -8.75  | -10.47 |
| 407 | 0.56 | 0.51 | -0.06 | -0.93 | -2.11 | -3.49  | -4.50  | -5.64  | -6.60  | -7.38  | -7.99  | -8.61  | -10.34 |
| 406 | 0.53 | 0.40 | -0.15 | -0.82 | -2.07 | -3.45  | -4.38  | -5.59  | -6.41  | -7.15  | -7.86  | -8.47  | -10.10 |
| 405 | 0.52 | 0.36 | -0.13 | -0.91 | -1.92 | -3.45  | -4.25  | -5.54  | -6.21  | -7.03  | -7.82  | -8.23  | -9.95  |
| 404 | 0.53 | 0.36 | -0.05 | -0.86 | -1.83 | -3.38  | -4.24  | -5.34  | -6.04  | -6.96  | -7.76  | -8.09  | -9.85  |
| 403 | 0.47 | 0.33 | -0.07 | -0.87 | -1.81 | -3.21  | -4.13  | -5.19  | -5.95  | -7.00  | -7.63  | -8.08  | -9.77  |
| 402 | 0.55 | 0.41 | -0.17 | -0.86 | -1.78 | -3.02  | -4.16  | -5.01  | -5.92  | -6.95  | -7.41  | -8.02  | -9.67  |
| 401 | 0.51 | 0.42 | -0.18 | -0.86 | -1.88 | -2.91  | -4.13  | -4.96  | -5.89  | -6.91  | -7.29  | -8.04  | -9.62  |
| 400 | 0.53 | 0.35 | -0.11 | -0.80 | -1.84 | -2.82  | -4.01  | -4.90  | -5.75  | -6.77  | -7.24  | -8.06  | -9.55  |
| 399 | 0.48 | 0.39 | -0.09 | -0.80 | -1.81 | -2.92  | -3.94  | -4.86  | -5.67  | -6.65  | -7.26  | -7.96  | -9.62  |
| 398 | 0.51 | 0.44 | 0.05  | -0.74 | -1.72 | -2.88  | -3.85  | -4.59  | -5.70  | -6.47  | -7.33  | -7.78  | -9.69  |
| 397 | 0.46 | 0.51 | 0.05  | -0.70 | -1.67 | -2.77  | -3.72  | -4.56  | -5.70  | -6.39  | -7.31  | -7.67  | -9.74  |
| 396 | 0.53 | 0.59 | 0.04  | -0.68 | -1.61 | -2.68  | -3.69  | -4.44  | -5.71  | -6.34  | -7.18  | -7.53  | -9.70  |
| 395 | 0.50 | 0.47 | 0.15  | -0.70 | -1.51 | -2.52  | -3.50  | -4.46  | -5.68  | -6.30  | -7.07  | -7.52  | -9.61  |
| 394 | 0.54 | 0.24 | 0.20  | -0.65 | -1.39 | -2.31  | -3.44  | -4.47  | -5.60  | -6.28  | -7.01  | -7.68  | -9.62  |
| 393 | 0.58 | 0.26 | 0.13  | -0.54 | -1.33 | -2.37  | -3.43  | -4.45  | -5.53  | -6.29  | -7.05  | -7.72  | -9.74  |
| 392 | 0.59 | 0.28 | 0.18  | -0.49 | -1.27 | -2.32  | -3.37  | -4.40  | -5.48  | -6.39  | -7.12  | -7.77  | -10.07 |
| 391 | 0.58 | 0.35 | 0.20  | -0.44 | -1.32 | -2.39  | -3.50  | -4.51  | -5.52  | -6.45  | -7.28  | -7.97  | -10.41 |
| 390 | 0.62 | 0.45 | 0.23  | -0.48 | -1.27 | -2.48  | -3.60  | -4.57  | -5.69  | -6.62  | -7.42  | -8.13  | -10.69 |
| 389 | 0.57 | 0.40 | 0.27  | -0.62 | -1.53 | -2.57  | -3.64  | -4.69  | -5.85  | -6.79  | -7.62  | -8.40  | -11.07 |
| 388 | 0.55 | 0.38 | 0.16  | -0.58 | -1.31 | -2.44  | -3.67  | -4.76  | -6.02  | -6.89  | -7.82  | -8.71  | -11.46 |
| 387 | 0.52 | 0.35 | 0.15  | -0.55 | -1.30 | -2.51  | -3.74  | -4.84  | -6.13  | -7.09  | -8.18  | -9.01  | -11.83 |
| 386 | 0.56 | 0.29 | 0.13  | -0.64 | -1.31 | -2.54  | -3.71  | -5.00  | -6.18  | -7.30  | -8.34  | -9.27  | -12.28 |
| 385 | 0.58 | 0.29 | 0.13  | -0.58 | -1.34 | -2.60  | -3.86  | -5.19  | -6.35  | -7.40  | -8.53  | -9.62  | -12.60 |
| 384 | 0.63 | 0.41 | 0.25  | -0.50 | -1.44 | -2.62  | -3.82  | -5.37  | -6.57  | -7.63  | -8.75  | -9.85  | -12.95 |
| 383 | 0.65 | 0.49 | 0.36  | -0.39 | -1.45 | -2.69  | -3.84  | -5.36  | -6.68  | -7.84  | -9.01  | -10.07 | -13.27 |
| 382 | 0.70 | 0.61 | 0.29  | -0.23 | -1.44 | -2.61  | -3.87  | -5.40  | -6.87  | -8.06  | -9.22  | -10.29 | -13.54 |
| 381 | 0.71 | 0.68 | 0.34  | -0.20 | -1.34 | -2.60  | -3.93  | -5.46  | -6.95  | -8.25  | -9.37  | -10.37 | -13.71 |
| 380 | 0.77 | 0.64 | 0.36  | -0.34 | -1.33 | -2.61  | -4.08  | -5.54  | -7.09  | -8.39  | -9.49  | -10.42 | -13.88 |
| 379 | 0.84 | 0.69 | 0.36  | -0.38 | -1.31 | -2.62  | -4.11  | -5.55  | -7.11  | -8.36  | -9.49  | -10.51 | -14.02 |
| 378 | 0.87 | 0.70 | 0.51  | -0.42 | -1.40 | -2.59  | -4.00  | -5.60  | -7.23  | -8.41  | -9.61  | -10.56 | -14.19 |
| 377 | 0.85 | 0.67 | 0.61  | -0.39 | -1.41 | -2.61  | -4.03  | -5.62  | -7.22  | -8.47  | -9.75  | -10.75 | -14.30 |
| 376 | 0.85 | 0.66 | 0.52  | -0.29 | -1.27 | -2.62  | -4.02  | -5.73  | -7.30  | -8.61  | -9.79  | -10.93 | -14.45 |
| 375 | 0.84 | 0.70 | 0.41  | -0.22 | -1.15 | -2.65  | -4.08  | -5.82  | -7.28  | -8.64  | -9.79  | -10.97 | -14.54 |
| 374 | 0.87 | 0.75 | 0.51  | -0.22 | -1.13 | -2.61  | -4.22  | -5.89  | -7.22  | -8.72  | -9.84  | -11.00 | -14.62 |
| 373 | 0.93 | 0.81 | 0.54  | -0.18 | -1.11 | -2.64  | -4.20  | -5.79  | -7.17  | -8.84  | -9.92  | -11.10 | -14.72 |
| 372 | 0.97 | 0.84 | 0.61  | -0.12 | -1.13 | -2.62  | -4.14  | -5.80  | -7.30  | -8.92  | -10.11 | -11.10 | -14.76 |
| 371 | 0.99 | 0.90 | 0.72  | -0.05 | -1.25 | -2.61  | -4.27  | -5.80  | -7.40  | -8.92  | -10.25 | -11.21 | -14.98 |
| 370 | 0.88 | 0.93 | 0.65  | 0.03  | -1.24 | -2.62  | -4.25  | -5.87  | -7.67  | -8.99  | -10.41 | -11.40 | -15.15 |
| 369 | 0.8  |      |       |       |       |        |        |        |        |        |        |        |        |

|     |       |       |       |       |       |       |       |       |       |        |        |        |        |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 362 | 1.06  | 1.13  | 0.66  | -0.09 | -1.38 | -3.05 | -4.90 | -6.69 | -8.39 | -9.86  | -11.16 | -12.26 | -15.91 |
| 361 | 1.01  | 1.18  | 0.82  | -0.01 | -1.47 | -3.14 | -4.97 | -6.71 | -8.45 | -9.86  | -11.11 | -12.29 | -15.88 |
| 360 | 1.09  | 1.14  | 0.77  | -0.06 | -1.53 | -3.25 | -4.92 | -6.73 | -8.43 | -9.85  | -11.09 | -12.22 | -15.76 |
| 359 | 1.09  | 1.10  | 0.77  | -0.05 | -1.56 | -3.39 | -4.92 | -6.62 | -8.41 | -9.70  | -11.13 | -12.16 | -15.65 |
| 358 | 1.00  | 1.07  | 0.73  | -0.04 | -1.53 | -3.25 | -5.00 | -6.55 | -8.33 | -9.69  | -11.13 | -12.19 | -15.60 |
| 357 | 1.01  | 1.11  | 0.83  | -0.09 | -1.50 | -3.27 | -5.01 | -6.59 | -8.33 | -9.81  | -11.15 | -12.11 | -15.50 |
| 356 | 1.09  | 1.14  | 0.88  | -0.11 | -1.51 | -3.18 | -5.04 | -6.66 | -8.41 | -9.77  | -11.19 | -12.11 | -15.44 |
| 355 | 1.11  | 1.18  | 0.96  | -0.04 | -1.37 | -3.10 | -5.06 | -6.71 | -8.45 | -9.80  | -11.11 | -12.07 | -15.39 |
| 354 | 1.27  | 1.30  | 0.90  | -0.10 | -1.38 | -3.18 | -5.03 | -6.82 | -8.54 | -9.89  | -11.06 | -11.97 | -15.40 |
| 353 | 1.28  | 1.17  | 0.94  | -0.03 | -1.44 | -3.23 | -4.97 | -6.89 | -8.51 | -9.94  | -11.02 | -11.91 | -15.38 |
| 352 | 1.25  | 1.11  | 0.87  | -0.08 | -1.48 | -3.17 | -5.00 | -6.84 | -8.40 | -9.94  | -10.92 | -11.89 | -15.28 |
| 351 | 1.23  | 1.10  | 0.86  | -0.19 | -1.54 | -3.27 | -4.96 | -6.87 | -8.34 | -9.92  | -10.87 | -11.86 | -15.05 |
| 350 | 1.24  | 1.13  | 0.78  | -0.27 | -1.59 | -3.21 | -4.96 | -6.92 | -8.17 | -9.72  | -10.87 | -11.86 | -14.83 |
| 349 | 1.25  | 1.15  | 0.81  | -0.28 | -1.55 | -3.14 | -4.93 | -6.79 | -8.06 | -9.55  | -10.77 | -11.68 | -14.63 |
| 348 | 1.32  | 1.24  | 0.80  | -0.20 | -1.60 | -3.12 | -4.95 | -6.63 | -8.03 | -9.48  | -10.67 | -11.48 | -14.43 |
| 347 | 1.31  | 1.20  | 0.89  | -0.09 | -1.51 | -3.03 | -4.96 | -6.62 | -7.90 | -9.39  | -10.55 | -11.27 | -14.21 |
| 346 | 1.34  | 1.28  | 0.78  | 0.01  | -1.44 | -2.99 | -4.94 | -6.48 | -7.91 | -9.30  | -10.41 | -11.12 | -13.96 |
| 345 | 1.31  | 1.22  | 0.72  | -0.07 | -1.46 | -3.07 | -4.95 | -6.40 | -7.91 | -9.19  | -10.24 | -11.01 | -13.66 |
| 344 | 1.34  | 1.28  | 0.66  | -0.07 | -1.49 | -3.12 | -4.90 | -6.37 | -7.73 | -9.01  | -10.08 | -10.83 | -13.35 |
| 343 | 1.32  | 1.23  | 0.72  | -0.13 | -1.53 | -3.27 | -4.84 | -6.24 | -7.73 | -8.88  | -9.88  | -10.63 | -13.02 |
| 342 | 1.43  | 1.29  | 0.84  | -0.14 | -1.56 | -3.36 | -4.74 | -6.11 | -7.63 | -8.73  | -9.68  | -10.39 | -12.74 |
| 341 | 1.32  | 1.30  | 0.95  | -0.16 | -1.54 | -3.33 | -4.73 | -6.07 | -7.47 | -8.60  | -9.50  | -10.24 | -12.48 |
| 340 | 1.31  | 1.29  | 0.94  | -0.15 | -1.47 | -3.15 | -4.65 | -5.97 | -7.37 | -8.45  | -9.26  | -10.04 | -12.20 |
| 339 | 1.31  | 1.21  | 0.94  | -0.13 | -1.41 | -3.10 | -4.62 | -5.81 | -7.21 | -8.25  | -9.15  | -9.81  | -11.91 |
| 338 | 1.24  | 1.18  | 0.86  | -0.06 | -1.47 | -3.05 | -4.49 | -5.82 | -6.96 | -8.09  | -9.02  | -9.66  | -11.68 |
| 337 | 1.26  | 1.12  | 0.72  | -0.11 | -1.55 | -3.02 | -4.38 | -5.71 | -6.87 | -7.92  | -8.82  | -9.46  | -11.42 |
| 336 | 1.33  | 1.12  | 0.65  | -0.16 | -1.61 | -2.97 | -4.31 | -5.70 | -6.69 | -7.79  | -8.62  | -9.16  | -11.22 |
| 335 | 1.12  | 1.06  | 0.62  | -0.24 | -1.59 | -2.94 | -4.24 | -5.59 | -6.58 | -7.62  | -8.39  | -8.96  | -10.98 |
| 334 | 1.06  | 0.95  | 0.62  | -0.30 | -1.55 | -2.86 | -4.21 | -5.56 | -6.53 | -7.50  | -8.22  | -8.81  | -10.76 |
| 333 | 0.95  | 0.95  | 0.59  | -0.22 | -1.39 | -2.86 | -4.17 | -5.44 | -6.43 | -7.33  | -8.09  | -8.64  | -10.53 |
| 332 | 0.84  | 1.04  | 0.68  | -0.21 | -1.43 | -2.81 | -4.11 | -5.32 | -6.29 | -7.16  | -7.95  | -8.47  | -10.27 |
| 331 | 0.94  | 1.09  | 0.60  | -0.25 | -1.50 | -2.76 | -4.06 | -5.16 | -6.24 | -7.04  | -7.79  | -8.29  | -10.02 |
| 330 | 1.07  | 1.04  | 0.52  | -0.33 | -1.46 | -2.71 | -4.05 | -5.10 | -6.10 | -7.00  | -7.68  | -8.19  | -9.81  |
| 329 | 0.91  | 1.02  | 0.51  | -0.41 | -1.36 | -2.78 | -3.95 | -5.06 | -6.02 | -6.92  | -7.62  | -8.01  | -9.67  |
| 328 | 0.94  | 1.03  | 0.44  | -0.34 | -1.35 | -2.69 | -3.84 | -5.00 | -5.93 | -6.87  | -7.54  | -7.91  | -9.52  |
| 327 | 0.84  | 0.90  | 0.36  | -0.35 | -1.36 | -2.63 | -3.80 | -4.90 | -5.82 | -6.75  | -7.39  | -7.80  | -9.34  |
| 326 | 0.69  | 0.82  | 0.33  | -0.40 | -1.51 | -2.64 | -3.83 | -4.84 | -5.70 | -6.61  | -7.26  | -7.75  | -9.16  |
| 325 | 0.66  | 0.73  | 0.27  | -0.42 | -1.66 | -2.69 | -3.92 | -4.82 | -5.72 | -6.59  | -7.18  | -7.61  | -8.99  |
| 324 | 0.66  | 0.67  | 0.26  | -0.46 | -1.61 | -2.68 | -3.96 | -4.78 | -5.63 | -6.44  | -7.06  | -7.53  | -8.82  |
| 323 | 0.65  | 0.71  | 0.27  | -0.42 | -1.57 | -2.76 | -3.91 | -4.79 | -5.56 | -6.36  | -7.01  | -7.39  | -8.75  |
| 322 | 0.55  | 0.62  | 0.22  | -0.43 | -1.62 | -2.77 | -3.86 | -4.76 | -5.56 | -6.31  | -6.93  | -7.28  | -8.70  |
| 321 | 0.50  | 0.45  | 0.18  | -0.55 | -1.75 | -2.81 | -3.79 | -4.73 | -5.60 | -6.25  | -6.87  | -7.17  | -8.67  |
| 320 | 0.45  | 0.26  | 0.05  | -0.66 | -1.75 | -2.94 | -3.90 | -4.77 | -5.67 | -6.34  | -6.78  | -7.27  | -8.69  |
| 319 | 0.39  | 0.15  | -0.15 | -0.80 | -1.89 | -3.12 | -4.06 | -4.90 | -5.81 | -6.45  | -6.85  | -7.37  | -8.75  |
| 318 | 0.27  | 0.08  | -0.26 | -0.89 | -1.88 | -3.20 | -4.08 | -5.07 | -5.85 | -6.47  | -6.98  | -7.44  | -8.78  |
| 317 | 0.18  | 0.11  | -0.32 | -0.94 | -1.93 | -3.21 | -4.04 | -5.13 | -5.97 | -6.52  | -7.25  | -7.61  | -8.92  |
| 316 | 0.03  | 0.06  | -0.32 | -0.99 | -2.04 | -3.25 | -4.11 | -5.15 | -6.00 | -6.62  | -7.38  | -7.75  | -9.02  |
| 315 | -0.07 | 0.02  | -0.34 | -1.10 | -2.23 | -3.35 | -4.23 | -5.29 | -6.16 | -6.79  | -7.52  | -7.86  | -9.23  |
| 314 | -0.13 | -0.13 | -0.35 | -1.23 | -2.29 | -3.43 | -4.53 | -5.37 | -6.33 | -7.03  | -7.59  | -8.07  | -9.45  |
| 313 | -0.16 | -0.18 | -0.53 | -1.35 | -2.40 | -3.60 | -4.74 | -5.62 | -6.47 | -7.30  | -7.82  | -8.34  | -9.73  |
| 312 | -0.25 | -0.25 | -0.61 | -1.43 | -2.45 | -3.79 | -4.83 | -5.91 | -6.62 | -7.41  | -8.07  | -8.55  | -10.03 |
| 311 | -0.39 | -0.29 | -0.66 | -1.61 | -2.58 | -3.95 | -4.92 | -6.09 | -6.89 | -7.66  | -8.37  | -8.90  | -10.44 |
| 310 | -0.47 | -0.30 | -0.69 | -1.67 | -2.69 | -4.12 | -5.04 | -6.30 | -7.08 | -7.91  | -8.58  | -9.16  | -10.80 |
| 309 | -0.41 | -0.38 | -0.74 | -1.75 | -2.88 | -4.22 | -5.17 | -6.45 | -7.38 | -8.13  | -8.84  | -9.33  | -11.12 |
| 308 | -0.37 | -0.44 | -0.78 | -1.80 | -2.99 | -4.36 | -5.45 | -6.55 | -7.69 | -8.42  | -9.14  | -9.64  | -11.50 |
| 307 | -0.33 | -0.43 | -0.91 | -1.82 | -2.99 | -4.34 | -5.68 | -6.73 | -7.91 | -8.77  | -9.61  | -9.98  | -11.87 |
| 306 | -0.35 | -0.38 | -0.91 | -1.89 | -3.06 | -4.46 | -5.93 | -6.92 | -8.15 | -9.03  | -9.95  | -10.34 | -12.31 |
| 305 | -0.37 | -0.38 | -0.96 | -1.98 | -3.14 | -4.63 | -6.11 | -7.17 | -8.40 | -9.43  | -10.22 | -10.85 | -12.75 |
| 304 | -0.45 | -0.35 | -0.90 | -2.05 | -3.28 | -4.83 | -6.23 | -7.44 | -8.59 | -9.76  | -10.48 | -11.18 | -13.23 |
| 303 | -0.36 | -0.43 | -0.86 | -2.10 | -3.50 | -4.97 | -6.32 | -7.70 | -8.85 | -10.04 | -10.76 | -11.47 | -13.68 |
| 302 | -0.33 | -0.43 | -0.79 | -2.11 | -3.64 | -5.09 | -6.49 | -7.92 | -9.12 | -10.28 | -11.05 | -11.85 | -14.12 |
| 301 | -0.33 | -0.37 | -0.83 | -2.14 | -3.73 | -5.17 | -6.66 | -8.15 | -9.33 | -10.55 | -11.41 | -12.13 | -14.48 |
| 300 | -0.32 | -0.29 | -0.74 | -2.13 | -3.73 | -5.21 | -6.91 | -8.29 | -9.60 | -10.66 | -11.64 | -12.33 | -14.72 |
| 299 | -0.36 | -0.23 | -0.87 | -2.16 | -3.72 | -5.31 | -6.97 | -8.40 | -9.77 | -10.81 | -11.73 | -12.52 | -14.88 |
| 298 | -0.37 | -0.19 | -0.90 | -2.16 | -3.75 | -5.35 | -6.92 | -8.45 | -9.90 | -10.87 | -11.85 | -12.52 | -14.93 |
| 297 | -0.25 | -0.23 | -0.89 | -2.11 | -3.71 | -5.35 | -6.92 | -8.53 | -9.82 | -10.73 | -11.81 | -12.48 | -14.96 |
| 296 | -0.12 | -0.28 | -0.81 | -2.08 | -3.65 | -5.32 | -6.82 | -8.47 | -9.71 | -10.61 | -11.80 | -12.42 | -14.89 |
| 295 | 0.07  | -0.15 | -0.85 | -1.98 | -3.58 | -5.25 | -6.79 | -8.46 | -9.78 | -10.52 | -11.70 | -12.29 | -14.62 |
| 294 | 0.06  | -0.18 | -0.75 | -1.94 | -3.51 | -5.16 | -6.74 | -8.23 | -9.36 | -10.43 | -11.51 | -12.09 | -14.25 |
| 293 | -0.03 | -0.10 | -0.77 | -1.99 | -3.45 | -5.02 | -6.59 | -8.00 | -9.14 | -10.33 | -11.16 | -11.79 | -13.74 |
| 292 | -0.03 | -0.10 | -0.73 | -1.98 | -3.40 | -4.86 | -6.38 | -7.79 | -9.01 | -10.05 | -10.80 | -11.37 | -13.25 |
| 291 | -0.08 | -0.09 | -0.70 | -1.90 | -3.33 | -4.71 | -6.24 | -7.59 | -8.71 | -9.64  | -10.32 | -10.90 | -12.83 |
| 290 | -0.02 | -0.05 | -0.66 | -1.82 | -3.18 | -4.54 | -5.95 | -7.21 | -8.33 | -9.20  | -10.04 | -10.49 | -12.36 |
| 289 | 0.10  | 0.02  | -0.64 | -1.68 | -3.01 | -4.41 | -5.83 | -6.93 | -7.94 | -8.76  | -9.51  | -10.07 | -11.76 |
| 288 | 0.15  | 0.07  | -0.60 | -1.61 | -2.87 | -4.24 | -5.61 | -6.64 | -7.54 | -8.41  | -9.09  | -9.60  | -11.18 |
| 287 | 0.17  | 0.08  | -0.53 | -1.53 | -2.73 | -4.08 | -5.36 | -6.35 | -7.19 | -8.07  | -8.69  | -9.17  | -10.61 |
| 286 | 0.26  | 0.08  | -0.44 | -1.41 | -2.58 | -3.92 | -5.04 | -6.05 | -6.95 | -7.70  | -8.22  | -8.65  | -10.16 |
| 285 | 0.31  | 0.13  | -0.39 | -1.27 | -2.53 | -3.77 | -4.78 | -5.81 | -6.64 | -7.39  | -8.66  | -8.26  | -9.83  |
| 284 | 0.33  | 0.14  | -0.37 | -1.20 | -2.38 | -3.60 | -4.48 | -5.58 | -6.33 | -7.08  | -7.67  | -8.01  | -9.60  |
| 283 | 0.31  | 0.16  | -0.34 | -1.13 | -2.20 | -3.47 | -4.41 | -5.48 | -6.13 | -6.86  | -7.59  | -7.85  | -9.32  |
| 282 | 0.33  | 0.22  | -0.30 | -1.16 | -2.09 | -3.38 | -4.38 | -5.37 | -5.98 | -6.71  | -7.55  | -7.79  | -9.05  |
| 281 | 0.30  | 0.23  | -0.14 | -1.03 | -1.98 | -3.30 | -4.36 | -5.25 | -5.98 | -6.70  | -7.39  | -7.68  | -8.88  |
| 280 | 0.42  | 0.27  | -0.05 | -0.99 | -1.98 | -3.26 | -4.27 | -5.16 | -6.07 | -6.72  | -7.27  | -7.69  | -8.89  |
| 279 | 0.56  | 0.38  | 0.11  | -0.96 | -2.12 | -3.22 | -4.32 | -5.21 | -6.14 | -6.80  | -7.27  | -7.87  | -9.09  |
| 278 | 0.58  | 0.47  | 0.12  | -0.92 | -2.18 | -3.23 | -4.31 | -5.32 | -6.21 | -6.95  | -7.51  | -8.08  | -9.42  |
| 277 | 0.61  | 0.60  | 0.02  | -0.93 | -2.15 | -3.29 | -4.46 | -5.50 | -6.32 | -7.16  | -7.83  | -8.43  | -9.75  |
| 276 | 0.60  | 0.56  | -0.01 | -0.99 | -2.17 | -3.37 | -4.49 | -5.72 | -6.47 | -7.32  | -8.12  | -8.77  | -10.09 |
| 275 | 0.55  | 0.54  | 0.00  | -0.94 | -2.15 | -3.50 | -4.68 | -5.86 | -6.76 | -7.62  | -8.34  | -8.93  | -10.48 |
| 274 | 0.73  | 0.51  | -0.02 | -0.88 | -2.16 | -3.62 | -4.86 | -6.01 | -7.04 | -7.82  | -8.61  | -9.13  | -10.90 |
| 273 | 0.80  | 0.49  | 0.04  | -0.81 | -2.18 | -3.69 | -5.04 | -6.21 | -7.27 | -8.08  | -8.83  | -9.32  | -11.27 |
| 272 | 0.80  | 0.52  | 0.00  | -0.79 | -2.25 | -3.83 | -5.23 | -6.37 | -7.49 | -8.35  | -9.14  | -9.54  | -11.57 |
| 271 | 0.85  | 0.53  | -0.03 | -0.80 | -2.30 | -3.93 | -5.45 | -6.55 | -7.78 | -8.54  | -9.36  | -9.91  | -11.81 |
| 270 | 0.85  | 0.60  | 0.00  | -0.99 | -2.42 | -4.03 | -5.50 | -6.80 | -7.99 | -8.71  | -9.56  | -10.32 | -12.03 |
| 269 | 0.88  | 0.69  | 0.10  | -1.16 | -2.54 | -4.88 | -5.72 | -6.96 | -8.25 | -9.00  | -9.80  | -10.66 | -12.28 |
| 268 | 0.95  | 0.73  | 0.10  | -1.24 | -2.66 | -4.37 | -5.97 |       |       |        |        |        |        |

|     |       |       |       |       |       |       |       |       |       |        |        |        |        |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 263 | 0.89  | 0.69  | -0.19 | -1.57 | -3.31 | -4.94 | -6.64 | -7.80 | -8.98 | -9.72  | -10.69 | -11.27 | -12.90 |
| 262 | 0.79  | 0.49  | -0.30 | -1.65 | -3.49 | -5.10 | -6.80 | -7.93 | -9.10 | -10.07 | -10.81 | -11.37 | -13.00 |
| 261 | 0.74  | 0.49  | -0.42 | -1.81 | -3.66 | -5.26 | -6.88 | -8.12 | -9.37 | -10.23 | -10.92 | -11.46 | -13.08 |
| 260 | 0.65  | 0.45  | -0.53 | -2.02 | -3.66 | -5.53 | -6.94 | -8.20 | -9.60 | -10.35 | -11.02 | -11.45 | -13.13 |
| 259 | 0.66  | 0.48  | -0.59 | -2.14 | -3.78 | -5.69 | -7.02 | -8.32 | -9.66 | -10.42 | -11.13 | -11.51 | -13.09 |
| 258 | 0.55  | 0.47  | -0.66 | -2.29 | -3.91 | -5.68 | -7.13 | -8.52 | -9.67 | -10.34 | -11.23 | -11.58 | -12.99 |
| 257 | 0.55  | 0.36  | -0.82 | -2.35 | -4.07 | -5.81 | -7.32 | -8.59 | -9.66 | -10.36 | -11.19 | -11.65 | -12.85 |
| 256 | 0.50  | 0.17  | -0.95 | -2.39 | -4.23 | -5.84 | -7.46 | -8.63 | -9.67 | -10.36 | -11.17 | -11.66 | -12.67 |
| 255 | 0.48  | 0.12  | -1.01 | -2.53 | -4.35 | -5.86 | -7.47 | -8.71 | -9.62 | -10.32 | -11.06 | -11.65 | -12.54 |
| 254 | 0.35  | 0.02  | -1.14 | -2.68 | -4.40 | -5.99 | -7.55 | -8.62 | -9.60 | -10.31 | -10.96 | -11.50 | -12.49 |
| 253 | 0.19  | 0.01  | -1.27 | -2.76 | -4.51 | -5.99 | -7.49 | -8.50 | -9.52 | -10.28 | -10.89 | -11.40 | -12.33 |
| 252 | 0.07  | 0.03  | -1.30 | -2.84 | -4.56 | -5.91 | -7.49 | -8.52 | -9.34 | -10.09 | -10.59 | -11.21 | -12.07 |
| 251 | 0.09  | -0.07 | -1.24 | -2.76 | -4.60 | -6.01 | -7.39 | -8.48 | -9.21 | -9.88  | -10.34 | -10.90 | -11.66 |
| 250 | 0.08  | -0.19 | -1.33 | -2.85 | -4.60 | -6.07 | -7.34 | -8.48 | -9.06 | -9.65  | -10.05 | -10.53 | -11.24 |
| 249 | 0.10  | -0.33 | -1.40 | -2.97 | -4.60 | -5.99 | -7.18 | -8.26 | -8.86 | -9.52  | -9.81  | -10.13 | -10.88 |
| 248 | 0.02  | -0.35 | -1.51 | -3.03 | -4.62 | -5.94 | -7.08 | -8.09 | -8.68 | -9.23  | -9.62  | -9.78  | -10.52 |
| 247 | -0.06 | -0.42 | -1.55 | -3.01 | -4.58 | -5.88 | -6.91 | -7.85 | -8.46 | -8.96  | -9.32  | -9.48  | -10.18 |
| 246 | -0.13 | -0.49 | -1.51 | -2.96 | -4.55 | -5.69 | -6.75 | -7.61 | -8.08 | -8.67  | -8.97  | -9.22  | -9.62  |
| 245 | -0.21 | -0.54 | -1.52 | -2.92 | -4.46 | -5.66 | -6.62 | -7.40 | -7.80 | -8.32  | -8.59  | -8.88  | -8.97  |
| 244 | -0.25 | -0.56 | -1.59 | -2.93 | -4.30 | -5.56 | -6.39 | -7.05 | -7.49 | -7.97  | -8.15  | -8.43  | -8.37  |
| 243 | -0.37 | -0.62 | -1.60 | -3.00 | -4.27 | -5.34 | -6.14 | -6.79 | -7.12 | -7.64  | -7.75  | -7.93  | -7.82  |
| 242 | -0.40 | -0.59 | -1.61 | -2.97 | -4.22 | -5.10 | -5.90 | -6.80 | -7.27 | -7.72  | -7.72  | -7.40  | -7.34  |
| 241 | -0.39 | -0.75 | -1.63 | -2.89 | -4.10 | -4.95 | -5.68 | -6.17 | -6.54 | -6.87  | -6.84  | -6.94  | -6.88  |
| 240 | -0.44 | -0.81 | -1.59 | -2.79 | -4.04 | -4.64 | -5.46 | -5.87 | -6.18 | -6.41  | -6.48  | -6.47  | -6.32  |
| 239 | -0.45 | -0.86 | -1.67 | -2.78 | -3.85 | -4.58 | -5.39 | -5.61 | -5.93 | -6.01  | -6.09  | -6.09  | -5.69  |
| 238 | -0.50 | -0.92 | -1.66 | -2.74 | -3.77 | -4.38 | -5.16 | -5.31 | -5.76 | -5.62  | -5.70  | -5.68  | -5.09  |
| 237 | -0.66 | -0.89 | -1.57 | -2.79 | -3.77 | -4.34 | -4.93 | -5.04 | -5.39 | -5.27  | -5.35  | -5.22  | -4.48  |
| 236 | -0.73 | -0.90 | -1.63 | -2.75 | -3.71 | -4.19 | -4.59 | -4.79 | -4.95 | -4.92  | -4.84  | -4.64  | -3.83  |
| 235 | -0.80 | -0.95 | -1.70 | -2.71 | -3.62 | -3.99 | -4.13 | -4.46 | -4.54 | -4.42  | -4.31  | -4.08  | -3.09  |
| 234 | -0.82 | -1.04 | -1.74 | -2.54 | -3.52 | -3.70 | -3.73 | -3.93 | -3.81 | -3.68  | -3.68  | -3.38  | -2.36  |
| 233 | -0.73 | -1.03 | -1.77 | -2.42 | -3.24 | -3.49 | -3.47 | -3.69 | -3.31 | -3.17  | -2.91  | -2.64  | -1.57  |
| 232 | -0.62 | -1.05 | -1.68 | -2.31 | -3.05 | -3.16 | -3.10 | -3.14 | -2.78 | -2.42  | -2.14  | -1.96  | -0.66  |
| 231 | -0.53 | -0.96 | -1.52 | -2.21 | -2.73 | -2.86 | -2.75 | -2.55 | -2.17 | -1.89  | -1.48  | -1.15  | 0.33   |
| 230 | -0.49 | -0.87 | -1.54 | -2.09 | -2.38 | -2.45 | -2.32 | -1.98 | -1.58 | -1.16  | -0.78  | -0.33  | 1.32   |
| 229 | -0.47 | -0.82 | -1.42 | -1.98 | -2.05 | -2.02 | -1.82 | -1.41 | -0.95 | -0.40  | 0.03   | 0.49   | 2.21   |
| 228 | -0.58 | -0.86 | -1.37 | -1.73 | -1.78 | -1.61 | -1.36 | -0.79 | -0.18 | 0.33   | 0.90   | 1.40   | 3.16   |
| 227 | -0.70 | -0.77 | -1.26 | -1.62 | -1.49 | -1.21 | -0.94 | -0.14 | 0.47  | 1.04   | 1.80   | 2.26   | 4.11   |
| 226 | -0.74 | -0.81 | -1.15 | -1.49 | -1.26 | -0.88 | -0.44 | 0.39  | 1.10  | 1.76   | 2.54   | 3.01   | 5.18   |
| 225 | -0.76 | -0.80 | -1.05 | -1.37 | -1.04 | -0.59 | -0.01 | 0.90  | 1.77  | 2.41   | 3.19   | 3.85   | 6.15   |
| 224 | -0.78 | -0.76 | -1.04 | -1.19 | -0.70 | -0.27 | 0.38  | 1.46  | 2.29  | 3.10   | 3.83   | 4.51   | 7.03   |
| 223 | -0.72 | -0.75 | -1.01 | -0.97 | -0.47 | 0.03  | 0.71  | 1.93  | 2.89  | 3.74   | 4.50   | 5.17   | 7.71   |
| 222 | -0.71 | -0.77 | -1.04 | -0.70 | -0.30 | 0.38  | 1.21  | 2.34  | 3.39  | 4.30   | 5.16   | 5.78   | 8.43   |
| 221 | -0.62 | -0.79 | -1.01 | -0.55 | -0.12 | 0.75  | 1.69  | 2.81  | 3.78  | 4.77   | 5.68   | 6.33   | 9.03   |
| 220 | -0.61 | -0.77 | -0.89 | -0.51 | 0.09  | 1.11  | 2.18  | 3.13  | 4.15  | 5.18   | 6.08   | 6.84   | 9.63   |
| 219 | -0.50 | -0.67 | -0.70 | -0.39 | 0.25  | 1.33  | 2.56  | 3.44  | 4.55  | 5.58   | 6.44   | 7.28   | 9.96   |
| 218 | -0.50 | -0.67 | -0.49 | -0.31 | 0.54  | 1.53  | 2.68  | 3.70  | 4.80  | 5.73   | 6.65   | 7.50   | 10.29  |
| 217 | -0.50 | -0.64 | -0.42 | -0.19 | 0.69  | 1.65  | 2.73  | 3.89  | 4.99  | 5.90   | 6.92   | 7.64   | 10.44  |
| 216 | -0.44 | -0.60 | -0.41 | 0.01  | 0.79  | 1.67  | 3.00  | 4.02  | 5.06  | 6.03   | 7.20   | 7.64   | 10.58  |
| 215 | -0.34 | -0.57 | -0.46 | 0.01  | 0.83  | 1.69  | 3.09  | 4.17  | 5.16  | 6.11   | 7.33   | 7.72   | 10.53  |
| 214 | -0.41 | -0.51 | -0.50 | -0.01 | 0.96  | 1.80  | 3.21  | 4.29  | 5.23  | 6.21   | 7.36   | 7.84   | 10.56  |
| 213 | -0.36 | -0.39 | -0.48 | 0.06  | 0.98  | 1.88  | 3.27  | 4.28  | 5.27  | 6.24   | 7.30   | 7.82   | 10.41  |
| 212 | -0.31 | -0.36 | -0.40 | 0.06  | 1.06  | 2.03  | 3.21  | 4.30  | 5.28  | 6.11   | 7.11   | 7.77   | 10.28  |
| 211 | -0.38 | -0.38 | -0.39 | 0.17  | 1.15  | 2.14  | 3.23  | 4.35  | 5.18  | 6.02   | 6.92   | 7.65   | 10.07  |
| 210 | -0.41 | -0.26 | -0.38 | 0.31  | 1.21  | 2.09  | 3.19  | 4.30  | 5.05  | 5.85   | 6.80   | 7.45   | 9.88   |
| 209 | -0.38 | -0.27 | -0.32 | 0.31  | 1.12  | 1.99  | 3.06  | 4.08  | 4.91  | 5.77   | 6.72   | 7.27   | 9.55   |
| 208 | -0.46 | -0.27 | -0.30 | 0.36  | 1.00  | 1.86  | 2.87  | 3.89  | 4.75  | 5.67   | 6.50   | 7.04   | 9.27   |
| 207 | -0.31 | -0.27 | -0.25 | 0.31  | 0.82  | 1.79  | 2.70  | 3.66  | 4.65  | 5.47   | 6.31   | 6.74   | 9.06   |
| 206 | -0.23 | -0.36 | -0.25 | 0.19  | 0.72  | 1.71  | 2.59  | 3.51  | 4.51  | 5.30   | 5.96   | 6.51   | 8.86   |
| 205 | -0.35 | -0.48 | -0.25 | 0.15  | 0.83  | 1.68  | 2.55  | 3.46  | 4.32  | 5.14   | 5.63   | 6.31   | 8.65   |
| 204 | -0.47 | -0.47 | -0.30 | 0.05  | 0.85  | 1.70  | 2.42  | 3.40  | 4.23  | 4.96   | 5.42   | 6.12   | 8.39   |
| 203 | -0.56 | -0.55 | -0.26 | 0.00  | 0.83  | 1.53  | 2.41  | 3.28  | 4.10  | 4.89   | 5.38   | 6.03   | 8.16   |
| 202 | -0.72 | -0.57 | -0.30 | -0.06 | 0.62  | 1.36  | 2.31  | 3.20  | 4.02  | 4.69   | 5.34   | 5.95   | 7.91   |
| 201 | -0.64 | -0.61 | -0.42 | -0.18 | 0.46  | 1.28  | 2.18  | 3.13  | 3.97  | 4.50   | 5.28   | 5.86   | 7.80   |
| 200 | -0.55 | -0.67 | -0.45 | -0.25 | 0.41  | 1.23  | 2.10  | 2.99  | 3.86  | 4.48   | 5.17   | 5.78   | 7.69   |
| 199 | -0.63 | -0.74 | -0.49 | -0.21 | 0.43  | 1.23  | 2.04  | 2.92  | 3.71  | 4.37   | 5.07   | 5.71   | 7.50   |
| 198 | -0.63 | -0.76 | -0.57 | -0.14 | 0.47  | 1.26  | 2.03  | 2.86  | 3.56  | 4.33   | 4.84   | 5.51   | 7.24   |
| 197 | -0.69 | -0.87 | -0.61 | -0.29 | 0.51  | 1.10  | 2.06  | 2.72  | 3.40  | 4.20   | 4.70   | 5.29   | 7.05   |
| 196 | -0.84 | -1.02 | -0.71 | -0.33 | 0.44  | 0.98  | 2.02  | 2.67  | 3.28  | 3.94   | 4.54   | 5.13   | 6.90   |
| 195 | -0.99 | -1.03 | -0.75 | -0.41 | 0.42  | 0.87  | 1.78  | 2.57  | 3.16  | 3.83   | 4.34   | 4.97   | 6.78   |
| 194 | -1.14 | -1.14 | -0.72 | -0.51 | 0.33  | 0.83  | 1.58  | 2.45  | 3.06  | 3.74   | 4.28   | 4.75   | 6.62   |
| 193 | -1.30 | -1.21 | -0.86 | -0.53 | 0.14  | 0.76  | 1.40  | 2.25  | 2.87  | 3.55   | 4.18   | 4.64   | 6.34   |
| 192 | -1.34 | -1.25 | -0.98 | -0.53 | 0.02  | 0.68  | 1.25  | 2.10  | 2.65  | 3.44   | 3.92   | 4.46   | 6.09   |
| 191 | -1.39 | -1.33 | -1.12 | -0.70 | -0.18 | 0.56  | 1.15  | 1.88  | 2.50  | 3.22   | 3.76   | 4.17   | 5.87   |
| 190 | -1.43 | -1.49 | -1.32 | -0.73 | -0.29 | 0.41  | 1.01  | 1.67  | 2.33  | 2.94   | 3.52   | 3.91   | 5.63   |
| 189 | -1.56 | -1.63 | -1.49 | -1.01 | -0.43 | 0.20  | 0.75  | 1.53  | 2.17  | 2.80   | 3.19   | 3.62   | 5.38   |
| 188 | -1.68 | -1.83 | -1.55 | -1.21 | -0.55 | 0.04  | 0.60  | 1.38  | 2.05  | 2.58   | 3.01   | 3.41   | 5.19   |
| 187 | -1.77 | -1.90 | -1.62 | -1.41 | -0.80 | -0.10 | 0.46  | 1.22  | 1.78  | 2.40   | 2.76   | 3.21   | 4.90   |
| 186 | -1.78 | -1.94 | -1.73 | -1.45 | -0.93 | -0.19 | 0.27  | 1.05  | 1.64  | 2.21   | 2.54   | 3.11   | 4.50   |
| 185 | -1.76 | -1.86 | -1.82 | -1.50 | -0.97 | -0.26 | 0.31  | 0.98  | 1.50  | 2.08   | 2.57   | 3.09   | 4.33   |
| 184 | -1.73 | -1.91 | -2.02 | -1.68 | -1.14 | -0.58 | 0.17  | 0.96  | 1.26  | 1.92   | 2.60   | 2.88   | 3.99   |
| 183 | -1.78 | -1.66 | -1.73 | -1.89 | -0.90 | -0.63 | 0.52  | 1.22  | 1.14  | 1.99   | 2.73   | 3.00   | 3.41   |
| 182 | -2.40 | -1.82 | -1.61 | -2.21 | -1.65 | -1.33 | -0.58 | 0.77  | 0.93  | 1.53   | 2.14   | 2.04   | 3.27   |

Figure 6(b): Absorption spectra – Every third scan and final scan tabulated below.

| WL/nm | 16 min | 71 min | 128 min | 184 min | 240 min | 297 min | 353 min | 409 min | 465 min | 521 min | 577 min | 634 min | 936 min |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 540   | 0.055  | 0.060  | 0.061   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.063   | 0.062   | 0.062   | 0.062   | 0.052   |
| 539   | 0.055  | 0.059  | 0.061   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.052   |
| 538   | 0.055  | 0.059  | 0.060   | 0.060   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.052   |
| 537   | 0.055  | 0.059  | 0.060   | 0.061   | 0.061   | 0.062   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.053   |
| 536   | 0.055  | 0.059  | 0.060   | 0.060   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.053   |
| 535   | 0.054  | 0.059  | 0.060   | 0.060   | 0.060   | 0.061   | 0.062   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.052   |
| 534   | 0.054  | 0.058  | 0.059   | 0.060   | 0.061   | 0.061   | 0.061   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.053   |
| 533   | 0.054  | 0.058  | 0.059   | 0.060   | 0.061   | 0.061   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.053   |
| 532   | 0.053  | 0.058  | 0.059   | 0.060   | 0.061   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.053   |
| 531   | 0.054  | 0.058  | 0.059   | 0.060   | 0.060   | 0.061   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.053   |
| 530   | 0.053  | 0.058  | 0.059   | 0.060   | 0.061   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.062   | 0.053   |
| 529   | 0.053  | 0.058  | 0.059   | 0.060   | 0.061   | 0.061   | 0.062   | 0.062   | 0.062   | 0.062   | 0.063   | 0.063   | 0.054   |
| 528   | 0.053  | 0.058  | 0.060   | 0.060   | 0.061   | 0.061   | 0.062   | 0.062   | 0.063   | 0.063   | 0.063   | 0.063   | 0.054   |
| 527   | 0.053  | 0.058  | 0.060   | 0.060   | 0.061   | 0.062   | 0.063   | 0.063   | 0.063   | 0.063   | 0.063   | 0.064   | 0.055   |
| 526   | 0.053  | 0.058  | 0.060   | 0.060   | 0.061   | 0.062   | 0.063   | 0.063   | 0.064   | 0.064   | 0.064   | 0.064   | 0.055   |
| 525   | 0.054  | 0.059  | 0.060   | 0.061   | 0.062   | 0.063   | 0.064   | 0.063   | 0.064   | 0.064   | 0.064   | 0.065   | 0.056   |
| 524   | 0.054  | 0.059  | 0.061   | 0.061   | 0.062   | 0.063   | 0.064   | 0.064   | 0.065   | 0.065   | 0.065   | 0.065   | 0.057   |
| 523   | 0.055  | 0.060  | 0.061   | 0.062   | 0.062   | 0.063   | 0.064   | 0.065   | 0.065   | 0.066   | 0.066   | 0.066   | 0.058   |
| 522   | 0.055  | 0.060  | 0.063   | 0.063   | 0.064   | 0.065   | 0.065   | 0.066   | 0.067   | 0.067   | 0.067   | 0.067   | 0.059   |
| 521   | 0.055  | 0.061  | 0.063   | 0.064   | 0.065   | 0.066   | 0.067   | 0.066   | 0.068   | 0.068   | 0.068   | 0.068   | 0.060   |
| 520   | 0.056  | 0.062  | 0.064   | 0.065   | 0.066   | 0.067   | 0.068   | 0.068   | 0.069   | 0.069   | 0.069   | 0.069   | 0.061   |
| 519   | 0.057  | 0.063  | 0.065   | 0.066   | 0.067   | 0.068   | 0.069   | 0.069   | 0.070   | 0.070   | 0.070   | 0.071   | 0.062   |
| 518   | 0.058  | 0.064  | 0.066   | 0.067   | 0.068   | 0.069   | 0.070   | 0.070   | 0.071   | 0.071   | 0.071   | 0.072   | 0.063   |
| 517   | 0.059  | 0.065  | 0.067   | 0.068   | 0.070   | 0.071   | 0.072   | 0.072   | 0.073   | 0.073   | 0.073   | 0.073   | 0.065   |
| 516   | 0.060  | 0.066  | 0.068   | 0.069   | 0.071   | 0.072   | 0.073   | 0.073   | 0.074   | 0.074   | 0.074   | 0.075   | 0.066   |
| 515   | 0.061  | 0.067  | 0.070   | 0.071   | 0.073   | 0.074   | 0.075   | 0.075   | 0.076   | 0.076   | 0.076   | 0.077   | 0.068   |
| 514   | 0.063  | 0.070  | 0.072   | 0.073   | 0.075   | 0.076   | 0.077   | 0.077   | 0.078   | 0.078   | 0.078   | 0.078   | 0.070   |
| 513   | 0.064  | 0.071  | 0.073   | 0.075   | 0.076   | 0.077   | 0.078   | 0.079   | 0.080   | 0.080   | 0.080   | 0.080   | 0.072   |
| 512   | 0.066  | 0.073  | 0.075   | 0.077   | 0.078   | 0.079   | 0.080   | 0.081   | 0.082   | 0.082   | 0.082   | 0.082   | 0.074   |
| 511   | 0.068  | 0.075  | 0.078   | 0.079   | 0.081   | 0.082   | 0.083   | 0.083   | 0.084   | 0.084   | 0.085   | 0.085   | 0.076   |
| 510   | 0.070  | 0.078  | 0.080   | 0.082   | 0.083   | 0.085   | 0.086   | 0.086   | 0.087   | 0.087   | 0.087   | 0.087   | 0.079   |
| 509   | 0.072  | 0.080  | 0.083   | 0.085   | 0.086   | 0.087   | 0.088   | 0.088   | 0.090   | 0.089   | 0.090   | 0.090   | 0.081   |
| 508   | 0.075  | 0.083  | 0.086   | 0.088   | 0.089   | 0.091   | 0.092   | 0.092   | 0.093   | 0.093   | 0.093   | 0.093   | 0.084   |
| 507   | 0.077  | 0.086  | 0.089   | 0.091   | 0.092   | 0.094   | 0.094   | 0.095   | 0.095   | 0.096   | 0.096   | 0.096   | 0.087   |
| 506   | 0.081  | 0.090  | 0.093   | 0.094   | 0.096   | 0.098   | 0.098   | 0.099   | 0.099   | 0.099   | 0.099   | 0.099   | 0.090   |
| 505   | 0.083  | 0.093  | 0.096   | 0.098   | 0.100   | 0.102   | 0.102   | 0.102   | 0.103   | 0.103   | 0.103   | 0.103   | 0.094   |
| 504   | 0.087  | 0.097  | 0.100   | 0.102   | 0.104   | 0.105   | 0.106   | 0.106   | 0.107   | 0.107   | 0.106   | 0.106   | 0.097   |
| 503   | 0.091  | 0.101  | 0.105   | 0.106   | 0.108   | 0.110   | 0.111   | 0.111   | 0.111   | 0.111   | 0.111   | 0.111   | 0.101   |
| 502   | 0.095  | 0.105  | 0.109   | 0.111   | 0.113   | 0.114   | 0.114   | 0.115   | 0.115   | 0.115   | 0.115   | 0.115   | 0.105   |
| 501   | 0.100  | 0.110  | 0.114   | 0.116   | 0.118   | 0.119   | 0.119   | 0.119   | 0.120   | 0.120   | 0.119   | 0.119   | 0.109   |
| 500   | 0.104  | 0.115  | 0.119   | 0.121   | 0.123   | 0.124   | 0.124   | 0.124   | 0.125   | 0.124   | 0.124   | 0.124   | 0.113   |
| 499   | 0.110  | 0.121  | 0.125   | 0.127   | 0.129   | 0.129   | 0.130   | 0.130   | 0.130   | 0.129   | 0.129   | 0.128   | 0.118   |
| 498   | 0.115  | 0.127  | 0.131   | 0.132   | 0.134   | 0.135   | 0.135   | 0.135   | 0.135   | 0.135   | 0.134   | 0.133   | 0.122   |
| 497   | 0.121  | 0.133  | 0.137   | 0.139   | 0.141   | 0.141   | 0.142   | 0.141   | 0.141   | 0.140   | 0.140   | 0.139   | 0.127   |
| 496   | 0.128  | 0.139  | 0.144   | 0.145   | 0.147   | 0.148   | 0.148   | 0.147   | 0.147   | 0.146   | 0.146   | 0.145   | 0.133   |
| 495   | 0.134  | 0.146  | 0.151   | 0.152   | 0.154   | 0.154   | 0.154   | 0.153   | 0.153   | 0.152   | 0.151   | 0.150   | 0.138   |
| 494   | 0.140  | 0.153  | 0.158   | 0.159   | 0.160   | 0.161   | 0.161   | 0.160   | 0.159   | 0.158   | 0.157   | 0.156   | 0.143   |
| 493   | 0.148  | 0.161  | 0.165   | 0.167   | 0.168   | 0.168   | 0.168   | 0.167   | 0.166   | 0.164   | 0.163   | 0.162   | 0.149   |
| 492   | 0.155  | 0.168  | 0.173   | 0.174   | 0.175   | 0.175   | 0.174   | 0.173   | 0.172   | 0.171   | 0.170   | 0.168   | 0.154   |
| 491   | 0.163  | 0.176  | 0.181   | 0.182   | 0.183   | 0.183   | 0.182   | 0.180   | 0.179   | 0.177   | 0.176   | 0.174   | 0.160   |
| 490   | 0.171  | 0.185  | 0.189   | 0.190   | 0.191   | 0.191   | 0.189   | 0.187   | 0.186   | 0.184   | 0.183   | 0.181   | 0.166   |
| 489   | 0.179  | 0.193  | 0.197   | 0.198   | 0.199   | 0.198   | 0.196   | 0.195   | 0.193   | 0.191   | 0.189   | 0.187   | 0.171   |
| 488   | 0.188  | 0.202  | 0.206   | 0.206   | 0.206   | 0.206   | 0.204   | 0.202   | 0.200   | 0.198   | 0.196   | 0.193   | 0.177   |
| 487   | 0.196  | 0.210  | 0.214   | 0.214   | 0.214   | 0.214   | 0.213   | 0.209   | 0.207   | 0.204   | 0.202   | 0.200   | 0.183   |
| 486   | 0.205  | 0.219  | 0.223   | 0.223   | 0.222   | 0.221   | 0.219   | 0.216   | 0.214   | 0.211   | 0.208   | 0.206   | 0.189   |
| 485   | 0.214  | 0.228  | 0.231   | 0.231   | 0.230   | 0.229   | 0.229   | 0.223   | 0.221   | 0.218   | 0.215   | 0.212   | 0.194   |
| 484   | 0.223  | 0.237  | 0.240   | 0.239   | 0.238   | 0.236   | 0.234   | 0.230   | 0.227   | 0.224   | 0.222   | 0.218   | 0.200   |
| 483   | 0.232  | 0.246  | 0.248   | 0.247   | 0.246   | 0.244   | 0.241   | 0.237   | 0.234   | 0.230   | 0.227   | 0.224   | 0.205   |
| 482   | 0.241  | 0.254  | 0.256   | 0.255   | 0.253   | 0.251   | 0.247   | 0.243   | 0.240   | 0.236   | 0.233   | 0.230   | 0.210   |
| 481   | 0.250  | 0.262  | 0.264   | 0.262   | 0.261   | 0.258   | 0.254   | 0.250   | 0.246   | 0.242   | 0.239   | 0.235   | 0.215   |
| 480   | 0.259  | 0.271  | 0.272   | 0.270   | 0.268   | 0.265   | 0.261   | 0.256   | 0.252   | 0.248   | 0.244   | 0.241   | 0.219   |
| 479   | 0.268  | 0.279  | 0.280   | 0.277   | 0.274   | 0.271   | 0.267   | 0.262   | 0.258   | 0.253   | 0.250   | 0.246   | 0.224   |
| 478   | 0.276  | 0.287  | 0.287   | 0.284   | 0.281   | 0.277   | 0.272   | 0.267   | 0.263   | 0.258   | 0.254   | 0.250   | 0.228   |
| 477   | 0.284  | 0.294  | 0.294   | 0.290   | 0.287   | 0.283   | 0.278   | 0.272   | 0.268   | 0.263   | 0.259   | 0.255   | 0.232   |
| 476   | 0.292  | 0.301  | 0.300   | 0.297   | 0.293   | 0.288   | 0.283   | 0.277   | 0.273   | 0.267   | 0.263   | 0.259   | 0.235   |
| 475   | 0.299  | 0.308  | 0.306   | 0.302   | 0.298   | 0.293   | 0.287   | 0.282   | 0.277   | 0.271   | 0.267   | 0.263   | 0.238   |
| 474   | 0.307  | 0.314  | 0.312   | 0.307   | 0.303   | 0.298   | 0.292   | 0.286   | 0.281   | 0.275   | 0.271   | 0.266   | 0.242   |
| 473   | 0.313  | 0.320  | 0.317   | 0.312   | 0.307   | 0.302   | 0.295   | 0.289   | 0.284   | 0.278   | 0.274   | 0.269   | 0.244   |
| 472   | 0.320  | 0.325  | 0.322   | 0.317   | 0.312   | 0.306   | 0.299   | 0.293   | 0.287   | 0.281   | 0.277   | 0.272   | 0.246   |
| 471   | 0.325  | 0.330  | 0.327   | 0.320   | 0.315   | 0.309   | 0.302   | 0.296   | 0.290   | 0.284   | 0.279   | 0.274   | 0.249   |
| 470   | 0.331  | 0.334  | 0.330   | 0.324   | 0.318   | 0.312   | 0.305   | 0.298   | 0.292   | 0.286   | 0.281   | 0.276   | 0.250   |
| 469   | 0.335  | 0.338  | 0.333   | 0.326   | 0.321   | 0.314   | 0.307   | 0.300   | 0.294   | 0.288   | 0.283   | 0.278   | 0.251   |
| 468   | 0.340  | 0.342  | 0.337   | 0.329   | 0.323   | 0.316   | 0.309   | 0.301   | 0.296   | 0.289   | 0.284   | 0.279   | 0.252   |
| 467   | 0.344  | 0.345  | 0.339   | 0.331   | 0.325   | 0.318   | 0.311   | 0.303   | 0.297   | 0.291   | 0.285   | 0.280   | 0.253   |
| 466   | 0.347  | 0.347  | 0.341   | 0.333   | 0.326   | 0.319   | 0.312   | 0.304   | 0.298   | 0.291   | 0.286   | 0.281   | 0.254   |
| 465   | 0.350  | 0.349  | 0.342   | 0.334   | 0.327   | 0.320   | 0.312   | 0.305   | 0.298   | 0.292   | 0.286   | 0.281   | 0.254   |
| 464   | 0.352  | 0.351  | 0.343   | 0.335   | 0.328   | 0.320   | 0.312   | 0.305   | 0.298   | 0.292   | 0.286   | 0.281   | 0.254   |
| 463   | 0.354  | 0.351  | 0.344   | 0.335   | 0.328   | 0.320   | 0.312   | 0.305   | 0.298   | 0.291   | 0.286   | 0.281   | 0.253   |
| 462   | 0.355  | 0.352  | 0.344   | 0.335   | 0.328   | 0.320   | 0.312   | 0.304   | 0.298   | 0.291   | 0.285   | 0.280   | 0.253   |
| 461   | 0.356  | 0.352  | 0.344   | 0.335   | 0.327   | 0.319   | 0.311   | 0.304   | 0.297   | 0.290   | 0.285   | 0.279   | 0.252   |
| 460   | 0.356  | 0.352  | 0.343   | 0.334   | 0.326   | 0.318   | 0.310   | 0.303   | 0.296   | 0.289   | 0.284   | 0.278   | 0.251   |
| 459   | 0.356  | 0.351  | 0.342   | 0.332   | 0.325   | 0.317   | 0.309   | 0.301   | 0.294   | 0.287   | 0.282   | 0.276   | 0.249   |
| 458   | 0.355  | 0.350  | 0.341   | 0.331   | 0.323   | 0.315   | 0.307   | 0.299   | 0.293   | 0.286   | 0.280   | 0.275   | 0.248   |
| 457   | 0.354  | 0.348  | 0.339   | 0.329   | 0.321   | 0.313   | 0.305   | 0.297   | 0.291   | 0.284   | 0.279   | 0.273   | 0.246   |
| 456   | 0.353  | 0.346  | 0.336   | 0.327   | 0.319   | 0.311   | 0.303   | 0.295   | 0.288   | 0.282   | 0.276   | 0.271   |         |

|     |       |       |       |       |       |       |       |       |       |       |       |       |         |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| 448 | 0.329 | 0.320 | 0.310 | 0.301 | 0.293 | 0.286 | 0.278 | 0.271 | 0.265 | 0.259 | 0.254 | 0.249 | 0.224   |
| 447 | 0.324 | 0.315 | 0.306 | 0.297 | 0.289 | 0.282 | 0.275 | 0.268 | 0.262 | 0.256 | 0.251 | 0.246 | 0.222   |
| 446 | 0.320 | 0.311 | 0.301 | 0.292 | 0.285 | 0.278 | 0.271 | 0.264 | 0.258 | 0.252 | 0.248 | 0.243 | 0.218   |
| 445 | 0.315 | 0.306 | 0.297 | 0.288 | 0.281 | 0.274 | 0.267 | 0.260 | 0.255 | 0.249 | 0.244 | 0.239 | 0.216   |
| 444 | 0.310 | 0.301 | 0.292 | 0.283 | 0.276 | 0.269 | 0.263 | 0.256 | 0.250 | 0.245 | 0.240 | 0.236 | 0.212   |
| 443 | 0.304 | 0.296 | 0.287 | 0.278 | 0.272 | 0.265 | 0.258 | 0.252 | 0.246 | 0.241 | 0.236 | 0.232 | 0.209   |
| 442 | 0.299 | 0.290 | 0.282 | 0.274 | 0.266 | 0.260 | 0.254 | 0.248 | 0.242 | 0.237 | 0.233 | 0.229 | 0.206   |
| 441 | 0.293 | 0.285 | 0.276 | 0.269 | 0.262 | 0.256 | 0.249 | 0.243 | 0.238 | 0.233 | 0.229 | 0.225 | 0.202   |
| 440 | 0.288 | 0.280 | 0.271 | 0.263 | 0.257 | 0.251 | 0.245 | 0.239 | 0.234 | 0.229 | 0.225 | 0.221 | 0.199   |
| 439 | 0.282 | 0.274 | 0.266 | 0.258 | 0.252 | 0.246 | 0.241 | 0.235 | 0.230 | 0.225 | 0.221 | 0.217 | 0.196   |
| 438 | 0.276 | 0.268 | 0.260 | 0.253 | 0.247 | 0.242 | 0.236 | 0.231 | 0.226 | 0.221 | 0.217 | 0.214 | 0.192   |
| 437 | 0.270 | 0.263 | 0.255 | 0.248 | 0.242 | 0.237 | 0.231 | 0.226 | 0.222 | 0.217 | 0.213 | 0.210 | 0.189   |
| 436 | 0.264 | 0.257 | 0.249 | 0.243 | 0.237 | 0.232 | 0.227 | 0.221 | 0.217 | 0.213 | 0.209 | 0.206 | 0.186   |
| 435 | 0.257 | 0.250 | 0.243 | 0.237 | 0.232 | 0.226 | 0.222 | 0.217 | 0.212 | 0.209 | 0.205 | 0.202 | 0.182   |
| 434 | 0.251 | 0.245 | 0.238 | 0.231 | 0.226 | 0.222 | 0.217 | 0.212 | 0.208 | 0.205 | 0.201 | 0.198 | 0.179   |
| 433 | 0.245 | 0.238 | 0.232 | 0.226 | 0.221 | 0.217 | 0.213 | 0.208 | 0.204 | 0.201 | 0.197 | 0.194 | 0.175   |
| 432 | 0.238 | 0.232 | 0.226 | 0.221 | 0.216 | 0.212 | 0.208 | 0.203 | 0.200 | 0.196 | 0.193 | 0.190 | 0.172   |
| 431 | 0.231 | 0.225 | 0.220 | 0.214 | 0.210 | 0.206 | 0.202 | 0.199 | 0.195 | 0.192 | 0.189 | 0.186 | 0.168   |
| 430 | 0.224 | 0.219 | 0.214 | 0.209 | 0.205 | 0.201 | 0.198 | 0.194 | 0.191 | 0.188 | 0.185 | 0.182 | 0.165   |
| 429 | 0.217 | 0.212 | 0.208 | 0.203 | 0.199 | 0.196 | 0.193 | 0.189 | 0.186 | 0.183 | 0.181 | 0.178 | 0.161   |
| 428 | 0.210 | 0.206 | 0.202 | 0.197 | 0.194 | 0.191 | 0.188 | 0.184 | 0.182 | 0.179 | 0.176 | 0.174 | 0.158   |
| 427 | 0.203 | 0.199 | 0.195 | 0.191 | 0.188 | 0.185 | 0.182 | 0.180 | 0.177 | 0.174 | 0.172 | 0.170 | 0.154   |
| 426 | 0.196 | 0.193 | 0.189 | 0.185 | 0.182 | 0.180 | 0.178 | 0.175 | 0.172 | 0.170 | 0.168 | 0.166 | 0.151   |
| 425 | 0.190 | 0.186 | 0.183 | 0.179 | 0.177 | 0.175 | 0.173 | 0.170 | 0.168 | 0.165 | 0.164 | 0.161 | 0.147   |
| 424 | 0.183 | 0.180 | 0.177 | 0.174 | 0.171 | 0.169 | 0.168 | 0.165 | 0.163 | 0.161 | 0.160 | 0.157 | 0.144   |
| 423 | 0.176 | 0.174 | 0.171 | 0.168 | 0.166 | 0.164 | 0.163 | 0.161 | 0.158 | 0.157 | 0.156 | 0.154 | 0.140   |
| 422 | 0.170 | 0.168 | 0.165 | 0.162 | 0.161 | 0.159 | 0.158 | 0.156 | 0.154 | 0.153 | 0.151 | 0.150 | 0.136   |
| 421 | 0.164 | 0.162 | 0.159 | 0.157 | 0.156 | 0.154 | 0.153 | 0.151 | 0.150 | 0.149 | 0.147 | 0.146 | 0.133   |
| 420 | 0.157 | 0.156 | 0.154 | 0.152 | 0.151 | 0.150 | 0.148 | 0.146 | 0.145 | 0.144 | 0.143 | 0.142 | 0.129   |
| 419 | 0.151 | 0.150 | 0.148 | 0.147 | 0.146 | 0.145 | 0.144 | 0.142 | 0.142 | 0.140 | 0.139 | 0.138 | 0.126   |
| 418 | 0.146 | 0.145 | 0.143 | 0.142 | 0.141 | 0.140 | 0.139 | 0.138 | 0.137 | 0.136 | 0.135 | 0.134 | 0.122   |
| 417 | 0.140 | 0.140 | 0.138 | 0.137 | 0.136 | 0.136 | 0.135 | 0.134 | 0.134 | 0.133 | 0.131 | 0.131 | 0.119   |
| 416 | 0.136 | 0.135 | 0.134 | 0.132 | 0.132 | 0.132 | 0.131 | 0.130 | 0.129 | 0.129 | 0.128 | 0.127 | 0.116   |
| 415 | 0.130 | 0.130 | 0.129 | 0.128 | 0.128 | 0.128 | 0.127 | 0.126 | 0.126 | 0.125 | 0.125 | 0.124 | 0.113   |
| 414 | 0.126 | 0.126 | 0.125 | 0.124 | 0.124 | 0.124 | 0.123 | 0.123 | 0.122 | 0.122 | 0.121 | 0.120 | 0.110   |
| 413 | 0.121 | 0.122 | 0.121 | 0.120 | 0.120 | 0.120 | 0.120 | 0.119 | 0.119 | 0.118 | 0.118 | 0.117 | 0.107   |
| 412 | 0.118 | 0.118 | 0.117 | 0.116 | 0.117 | 0.117 | 0.116 | 0.116 | 0.116 | 0.115 | 0.115 | 0.114 | 0.104   |
| 411 | 0.113 | 0.114 | 0.113 | 0.113 | 0.113 | 0.113 | 0.113 | 0.112 | 0.113 | 0.112 | 0.112 | 0.111 | 0.101   |
| 410 | 0.110 | 0.111 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.109 | 0.109 | 0.108 | 0.099   |
| 409 | 0.107 | 0.108 | 0.107 | 0.107 | 0.107 | 0.107 | 0.107 | 0.107 | 0.107 | 0.106 | 0.106 | 0.106 | 0.096   |
| 408 | 0.104 | 0.105 | 0.104 | 0.104 | 0.104 | 0.104 | 0.105 | 0.104 | 0.104 | 0.104 | 0.104 | 0.103 | 0.094   |
| 407 | 0.102 | 0.103 | 0.102 | 0.102 | 0.102 | 0.102 | 0.102 | 0.102 | 0.102 | 0.102 | 0.102 | 0.101 | 0.092   |
| 406 | 0.099 | 0.100 | 0.100 | 0.099 | 0.100 | 0.100 | 0.100 | 0.100 | 0.099 | 0.099 | 0.099 | 0.099 | 0.090   |
| 405 | 0.097 | 0.098 | 0.098 | 0.098 | 0.097 | 0.098 | 0.098 | 0.098 | 0.097 | 0.097 | 0.097 | 0.097 | 0.087   |
| 404 | 0.095 | 0.096 | 0.096 | 0.095 | 0.096 | 0.096 | 0.096 | 0.096 | 0.096 | 0.096 | 0.095 | 0.095 | 0.086   |
| 403 | 0.094 | 0.095 | 0.094 | 0.094 | 0.094 | 0.095 | 0.095 | 0.094 | 0.095 | 0.094 | 0.094 | 0.094 | 0.085   |
| 402 | 0.092 | 0.093 | 0.093 | 0.093 | 0.093 | 0.093 | 0.093 | 0.093 | 0.093 | 0.093 | 0.093 | 0.093 | 0.083   |
| 401 | 0.091 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.091 | 0.082   |
| 400 | 0.090 | 0.092 | 0.091 | 0.091 | 0.091 | 0.092 | 0.092 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.082   |
| 399 | 0.089 | 0.091 | 0.091 | 0.090 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.090 | 0.081   |
| 398 | 0.089 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.090 | 0.090 | 0.081   |
| 397 | 0.089 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.090 | 0.091 | 0.091 | 0.090 | 0.090 | 0.081   |
| 396 | 0.090 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.091 | 0.090 | 0.081   |
| 395 | 0.090 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.091 | 0.091 | 0.082   |
| 394 | 0.091 | 0.093 | 0.093 | 0.093 | 0.093 | 0.093 | 0.093 | 0.092 | 0.092 | 0.092 | 0.092 | 0.092 | 0.083   |
| 393 | 0.092 | 0.094 | 0.094 | 0.094 | 0.094 | 0.094 | 0.094 | 0.094 | 0.094 | 0.093 | 0.094 | 0.093 | 0.084   |
| 392 | 0.094 | 0.096 | 0.096 | 0.095 | 0.096 | 0.096 | 0.096 | 0.095 | 0.095 | 0.095 | 0.095 | 0.095 | 0.085   |
| 391 | 0.095 | 0.097 | 0.097 | 0.097 | 0.097 | 0.097 | 0.097 | 0.097 | 0.097 | 0.096 | 0.096 | 0.096 | 0.087   |
| 390 | 0.097 | 0.099 | 0.099 | 0.099 | 0.099 | 0.099 | 0.099 | 0.098 | 0.098 | 0.098 | 0.098 | 0.098 | 0.088   |
| 389 | 0.099 | 0.101 | 0.101 | 0.101 | 0.101 | 0.101 | 0.101 | 0.101 | 0.100 | 0.100 | 0.100 | 0.100 | 0.090   |
| 388 | 0.101 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.102 | 0.102 | 0.102 | 0.102 | 0.101 | 0.092   |
| 387 | 0.103 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.104 | 0.104 | 0.104 | 0.104 | 0.104 | 0.094   |
| 386 | 0.105 | 0.107 | 0.107 | 0.107 | 0.107 | 0.107 | 0.107 | 0.106 | 0.106 | 0.106 | 0.106 | 0.105 | 0.095   |
| 385 | 0.107 | 0.110 | 0.110 | 0.110 | 0.109 | 0.110 | 0.109 | 0.109 | 0.108 | 0.108 | 0.108 | 0.108 | 0.097   |
| 384 | 0.110 | 0.112 | 0.112 | 0.112 | 0.112 | 0.112 | 0.111 | 0.111 | 0.111 | 0.110 | 0.110 | 0.110 | 0.099   |
| 383 | 0.112 | 0.115 | 0.115 | 0.114 | 0.114 | 0.114 | 0.114 | 0.113 | 0.113 | 0.112 | 0.112 | 0.111 | 0.101   |
| 382 | 0.114 | 0.117 | 0.117 | 0.117 | 0.116 | 0.116 | 0.116 | 0.115 | 0.114 | 0.114 | 0.114 | 0.113 | 0.103   |
| 381 | 0.117 | 0.119 | 0.119 | 0.119 | 0.118 | 0.118 | 0.118 | 0.117 | 0.117 | 0.116 | 0.116 | 0.115 | 0.104   |
| 380 | 0.119 | 0.121 | 0.121 | 0.121 | 0.121 | 0.120 | 0.120 | 0.119 | 0.118 | 0.117 | 0.117 | 0.117 | 0.106   |
| 379 | 0.121 | 0.123 | 0.123 | 0.123 | 0.122 | 0.122 | 0.122 | 0.120 | 0.120 | 0.119 | 0.119 | 0.118 | 0.107   |
| 378 | 0.123 | 0.125 | 0.125 | 0.125 | 0.124 | 0.124 | 0.123 | 0.122 | 0.121 | 0.121 | 0.121 | 0.120 | 0.109   |
| 377 | 0.125 | 0.127 | 0.127 | 0.126 | 0.126 | 0.126 | 0.125 | 0.124 | 0.123 | 0.122 | 0.122 | 0.121 | 0.110   |
| 376 | 0.127 | 0.129 | 0.128 | 0.128 | 0.128 | 0.127 | 0.126 | 0.125 | 0.124 | 0.124 | 0.123 | 0.123 | 0.111   |
| 375 | 0.129 | 0.131 | 0.130 | 0.130 | 0.129 | 0.129 | 0.128 | 0.127 | 0.126 | 0.125 | 0.125 | 0.124 | 0.112   |
| 374 | 0.130 | 0.132 | 0.132 | 0.131 | 0.131 | 0.130 | 0.130 | 0.128 | 0.127 | 0.127 | 0.126 | 0.125 | 0.113   |
| 373 | 0.132 | 0.134 | 0.134 | 0.133 | 0.132 | 0.131 | 0.131 | 0.129 | 0.129 | 0.128 | 0.127 | 0.126 | 0.115   |
| 372 | 0.133 | 0.136 | 0.135 | 0.134 | 0.133 | 0.133 | 0.132 | 0.131 | 0.130 | 0.129 | 0.128 | 0.127 | 0.116   |
| 371 | 0.135 | 0.137 | 0.137 | 0.136 | 0.135 | 0.134 | 0.133 | 0.132 | 0.131 | 0.130 | 0.129 | 0.128 | 0.117   |
| 370 | 0.136 | 0.139 | 0.138 | 0.137 | 0.136 | 0.136 | 0.135 | 0.133 | 0.132 | 0.132 | 0.131 | 0.130 | 0.118   |
| 369 | 0.138 | 0.140 | 0.139 | 0.139 | 0.137 | 0.137 | 0.136 | 0.134 | 0.133 | 0.133 | 0.132 | 0.131 | 0.119   |
| 368 | 0.139 | 0.141 | 0.141 | 0.140 | 0.139 | 0.138 | 0.137 | 0.135 | 0.134 | 0.133 | 0.133 | 0.132 | 0.120   |
| 367 | 0.141 | 0.143 | 0.142 | 0.141 | 0.140 | 0.139 | 0.138 | 0.137 | 0.136 | 0.135 | 0.134 | 0.133 | 0.121   |
| 366 | 0.142 | 0.144 | 0.143 | 0.142 | 0.141 | 0.141 | 0.139 | 0.138 | 0.137 | 0.136 | 0.135 | 0.134 | 0.122   |
| 365 | 0.144 | 0.146 | 0.144 | 0.144 | 0.143 | 0.142 | 0.141 | 0.139 | 0.138 | 0.137 | 0.136 | 0.135 | 0.122   |
| 364 | 0.145 | 0.147 | 0.146 | 0.145 | 0.144 | 0.143 | 0.142 | 0.140 | 0.139 | 0.138 | 0.137 | 0.136 | 0.123   |
| 363 | 0.146 | 0.148 | 0.147 | 0.146 | 0.145 | 0.144 | 0.143 | 0.141 | 0.140 | 0.139 | 0.138 | 0.137 | 0.124   |
| 362 | 0.147 | 0.149 | 0.148 | 0.147 | 0.146 | 0.145 | 0.144 | 0.142 | 0.141 | 0.139 | 0.139 | 0.137 | 0.124</ |



|     |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 349 | 0.162 | 0.163 | 0.161 | 0.160 | 0.158 | 0.157 | 0.155 | 0.153 | 0.151 | 0.150 | 0.148 | 0.146 | 0.133 |
| 348 | 0.163 | 0.164 | 0.162 | 0.160 | 0.159 | 0.157 | 0.155 | 0.153 | 0.152 | 0.150 | 0.148 | 0.147 | 0.133 |
| 347 | 0.163 | 0.165 | 0.163 | 0.161 | 0.160 | 0.157 | 0.156 | 0.154 | 0.152 | 0.150 | 0.149 | 0.148 | 0.133 |
| 346 | 0.164 | 0.165 | 0.163 | 0.161 | 0.160 | 0.158 | 0.156 | 0.154 | 0.152 | 0.151 | 0.149 | 0.148 | 0.134 |
| 345 | 0.164 | 0.165 | 0.163 | 0.162 | 0.160 | 0.158 | 0.156 | 0.154 | 0.152 | 0.151 | 0.149 | 0.148 | 0.133 |
| 344 | 0.165 | 0.165 | 0.164 | 0.162 | 0.160 | 0.158 | 0.156 | 0.154 | 0.152 | 0.150 | 0.149 | 0.147 | 0.133 |
| 343 | 0.164 | 0.165 | 0.163 | 0.162 | 0.160 | 0.158 | 0.156 | 0.154 | 0.152 | 0.150 | 0.149 | 0.147 | 0.133 |
| 342 | 0.164 | 0.165 | 0.163 | 0.161 | 0.160 | 0.157 | 0.156 | 0.154 | 0.152 | 0.150 | 0.148 | 0.147 | 0.133 |
| 341 | 0.164 | 0.164 | 0.163 | 0.161 | 0.159 | 0.157 | 0.155 | 0.153 | 0.151 | 0.149 | 0.148 | 0.147 | 0.132 |
| 340 | 0.163 | 0.164 | 0.162 | 0.160 | 0.158 | 0.157 | 0.155 | 0.152 | 0.151 | 0.149 | 0.148 | 0.146 | 0.132 |
| 339 | 0.162 | 0.163 | 0.161 | 0.160 | 0.158 | 0.156 | 0.154 | 0.152 | 0.150 | 0.148 | 0.147 | 0.145 | 0.131 |
| 338 | 0.162 | 0.162 | 0.161 | 0.159 | 0.157 | 0.155 | 0.153 | 0.151 | 0.149 | 0.148 | 0.146 | 0.145 | 0.130 |
| 337 | 0.161 | 0.162 | 0.160 | 0.158 | 0.156 | 0.154 | 0.153 | 0.150 | 0.149 | 0.147 | 0.145 | 0.144 | 0.130 |
| 336 | 0.160 | 0.161 | 0.159 | 0.157 | 0.155 | 0.153 | 0.152 | 0.149 | 0.148 | 0.146 | 0.144 | 0.143 | 0.129 |
| 335 | 0.160 | 0.160 | 0.158 | 0.156 | 0.154 | 0.153 | 0.151 | 0.149 | 0.147 | 0.145 | 0.144 | 0.142 | 0.129 |
| 334 | 0.159 | 0.159 | 0.157 | 0.156 | 0.153 | 0.152 | 0.150 | 0.148 | 0.146 | 0.144 | 0.143 | 0.142 | 0.128 |
| 333 | 0.158 | 0.158 | 0.157 | 0.155 | 0.153 | 0.151 | 0.149 | 0.147 | 0.146 | 0.144 | 0.142 | 0.141 | 0.127 |
| 332 | 0.157 | 0.158 | 0.156 | 0.154 | 0.152 | 0.150 | 0.148 | 0.146 | 0.145 | 0.143 | 0.142 | 0.140 | 0.126 |
| 331 | 0.156 | 0.156 | 0.155 | 0.153 | 0.151 | 0.150 | 0.148 | 0.146 | 0.144 | 0.142 | 0.141 | 0.140 | 0.126 |
| 330 | 0.155 | 0.156 | 0.154 | 0.152 | 0.150 | 0.149 | 0.147 | 0.145 | 0.143 | 0.142 | 0.140 | 0.139 | 0.125 |
| 329 | 0.154 | 0.155 | 0.153 | 0.151 | 0.150 | 0.148 | 0.146 | 0.144 | 0.143 | 0.141 | 0.139 | 0.138 | 0.124 |
| 328 | 0.153 | 0.154 | 0.152 | 0.151 | 0.149 | 0.147 | 0.145 | 0.143 | 0.142 | 0.140 | 0.138 | 0.137 | 0.124 |
| 327 | 0.153 | 0.153 | 0.152 | 0.150 | 0.148 | 0.146 | 0.144 | 0.142 | 0.141 | 0.139 | 0.138 | 0.137 | 0.123 |
| 326 | 0.152 | 0.153 | 0.151 | 0.149 | 0.147 | 0.146 | 0.144 | 0.142 | 0.140 | 0.139 | 0.137 | 0.136 | 0.123 |
| 325 | 0.152 | 0.152 | 0.151 | 0.149 | 0.147 | 0.145 | 0.144 | 0.141 | 0.140 | 0.138 | 0.137 | 0.135 | 0.122 |
| 324 | 0.150 | 0.151 | 0.149 | 0.148 | 0.146 | 0.145 | 0.143 | 0.141 | 0.139 | 0.138 | 0.136 | 0.135 | 0.121 |
| 323 | 0.150 | 0.151 | 0.149 | 0.148 | 0.146 | 0.144 | 0.142 | 0.140 | 0.139 | 0.137 | 0.136 | 0.134 | 0.121 |
| 322 | 0.149 | 0.150 | 0.148 | 0.147 | 0.145 | 0.143 | 0.142 | 0.140 | 0.138 | 0.137 | 0.135 | 0.134 | 0.121 |
| 321 | 0.149 | 0.150 | 0.148 | 0.146 | 0.145 | 0.143 | 0.141 | 0.139 | 0.138 | 0.136 | 0.135 | 0.133 | 0.120 |
| 320 | 0.149 | 0.149 | 0.147 | 0.146 | 0.144 | 0.142 | 0.140 | 0.138 | 0.137 | 0.135 | 0.134 | 0.132 | 0.119 |
| 319 | 0.148 | 0.148 | 0.146 | 0.145 | 0.143 | 0.142 | 0.139 | 0.137 | 0.136 | 0.135 | 0.133 | 0.132 | 0.119 |
| 318 | 0.147 | 0.148 | 0.146 | 0.144 | 0.143 | 0.141 | 0.139 | 0.137 | 0.136 | 0.134 | 0.133 | 0.132 | 0.118 |
| 317 | 0.147 | 0.148 | 0.146 | 0.144 | 0.142 | 0.140 | 0.139 | 0.137 | 0.135 | 0.134 | 0.132 | 0.131 | 0.118 |
| 316 | 0.146 | 0.147 | 0.145 | 0.144 | 0.141 | 0.140 | 0.138 | 0.136 | 0.135 | 0.133 | 0.131 | 0.130 | 0.117 |
| 315 | 0.145 | 0.146 | 0.144 | 0.143 | 0.141 | 0.139 | 0.137 | 0.135 | 0.134 | 0.133 | 0.131 | 0.130 | 0.117 |
| 314 | 0.145 | 0.146 | 0.144 | 0.142 | 0.140 | 0.139 | 0.137 | 0.135 | 0.134 | 0.132 | 0.131 | 0.129 | 0.116 |
| 313 | 0.144 | 0.145 | 0.143 | 0.141 | 0.140 | 0.138 | 0.136 | 0.135 | 0.133 | 0.131 | 0.130 | 0.128 | 0.115 |
| 312 | 0.144 | 0.144 | 0.142 | 0.141 | 0.139 | 0.137 | 0.136 | 0.133 | 0.132 | 0.131 | 0.129 | 0.128 | 0.115 |
| 311 | 0.143 | 0.144 | 0.142 | 0.140 | 0.139 | 0.137 | 0.135 | 0.133 | 0.132 | 0.130 | 0.129 | 0.127 | 0.114 |
| 310 | 0.142 | 0.143 | 0.141 | 0.140 | 0.138 | 0.136 | 0.134 | 0.132 | 0.131 | 0.129 | 0.128 | 0.127 | 0.114 |
| 309 | 0.142 | 0.142 | 0.140 | 0.139 | 0.137 | 0.135 | 0.133 | 0.131 | 0.130 | 0.128 | 0.127 | 0.126 | 0.113 |
| 308 | 0.141 | 0.141 | 0.139 | 0.138 | 0.136 | 0.134 | 0.133 | 0.130 | 0.129 | 0.127 | 0.126 | 0.125 | 0.112 |
| 307 | 0.140 | 0.140 | 0.138 | 0.137 | 0.135 | 0.133 | 0.132 | 0.130 | 0.128 | 0.126 | 0.125 | 0.124 | 0.111 |
| 306 | 0.139 | 0.139 | 0.137 | 0.136 | 0.134 | 0.132 | 0.131 | 0.129 | 0.128 | 0.126 | 0.124 | 0.123 | 0.111 |
| 305 | 0.137 | 0.138 | 0.136 | 0.135 | 0.133 | 0.132 | 0.130 | 0.128 | 0.126 | 0.125 | 0.124 | 0.122 | 0.110 |
| 304 | 0.136 | 0.137 | 0.135 | 0.134 | 0.132 | 0.130 | 0.129 | 0.127 | 0.126 | 0.124 | 0.123 | 0.122 | 0.109 |
| 303 | 0.135 | 0.136 | 0.134 | 0.132 | 0.131 | 0.129 | 0.127 | 0.126 | 0.124 | 0.123 | 0.122 | 0.120 | 0.108 |
| 302 | 0.134 | 0.135 | 0.132 | 0.131 | 0.129 | 0.128 | 0.126 | 0.124 | 0.123 | 0.122 | 0.121 | 0.119 | 0.107 |
| 301 | 0.132 | 0.133 | 0.131 | 0.130 | 0.128 | 0.127 | 0.125 | 0.123 | 0.122 | 0.121 | 0.119 | 0.118 | 0.106 |
| 300 | 0.130 | 0.131 | 0.130 | 0.129 | 0.127 | 0.125 | 0.124 | 0.122 | 0.121 | 0.120 | 0.118 | 0.117 | 0.105 |
| 299 | 0.129 | 0.130 | 0.128 | 0.127 | 0.125 | 0.124 | 0.123 | 0.121 | 0.120 | 0.118 | 0.117 | 0.116 | 0.103 |
| 298 | 0.127 | 0.128 | 0.127 | 0.126 | 0.124 | 0.123 | 0.121 | 0.119 | 0.118 | 0.117 | 0.116 | 0.115 | 0.102 |
| 297 | 0.126 | 0.126 | 0.125 | 0.124 | 0.123 | 0.121 | 0.120 | 0.118 | 0.117 | 0.116 | 0.115 | 0.114 | 0.101 |
| 296 | 0.124 | 0.125 | 0.124 | 0.123 | 0.121 | 0.120 | 0.119 | 0.116 | 0.116 | 0.115 | 0.114 | 0.112 | 0.100 |
| 295 | 0.122 | 0.123 | 0.122 | 0.121 | 0.120 | 0.118 | 0.117 | 0.115 | 0.115 | 0.113 | 0.112 | 0.111 | 0.099 |
| 294 | 0.120 | 0.122 | 0.120 | 0.120 | 0.118 | 0.117 | 0.116 | 0.114 | 0.113 | 0.112 | 0.111 | 0.110 | 0.098 |
| 293 | 0.119 | 0.120 | 0.119 | 0.118 | 0.117 | 0.116 | 0.115 | 0.113 | 0.112 | 0.111 | 0.110 | 0.109 | 0.097 |
| 292 | 0.117 | 0.118 | 0.117 | 0.117 | 0.115 | 0.114 | 0.113 | 0.112 | 0.111 | 0.110 | 0.109 | 0.108 | 0.096 |
| 291 | 0.116 | 0.117 | 0.116 | 0.116 | 0.114 | 0.113 | 0.112 | 0.110 | 0.110 | 0.109 | 0.108 | 0.107 | 0.095 |
| 290 | 0.114 | 0.115 | 0.115 | 0.114 | 0.113 | 0.112 | 0.110 | 0.109 | 0.109 | 0.108 | 0.107 | 0.106 | 0.094 |
| 289 | 0.113 | 0.114 | 0.113 | 0.113 | 0.111 | 0.110 | 0.110 | 0.108 | 0.108 | 0.107 | 0.106 | 0.105 | 0.094 |
| 288 | 0.112 | 0.113 | 0.112 | 0.112 | 0.110 | 0.109 | 0.109 | 0.107 | 0.107 | 0.106 | 0.105 | 0.104 | 0.093 |
| 287 | 0.111 | 0.112 | 0.111 | 0.111 | 0.110 | 0.109 | 0.108 | 0.107 | 0.106 | 0.105 | 0.104 | 0.104 | 0.092 |
| 286 | 0.109 | 0.111 | 0.110 | 0.110 | 0.109 | 0.107 | 0.107 | 0.106 | 0.105 | 0.105 | 0.104 | 0.103 | 0.092 |
| 285 | 0.108 | 0.110 | 0.109 | 0.109 | 0.108 | 0.107 | 0.106 | 0.105 | 0.105 | 0.104 | 0.103 | 0.103 | 0.091 |
| 284 | 0.107 | 0.109 | 0.109 | 0.108 | 0.107 | 0.106 | 0.106 | 0.105 | 0.105 | 0.104 | 0.103 | 0.103 | 0.091 |
| 283 | 0.106 | 0.108 | 0.108 | 0.108 | 0.107 | 0.106 | 0.105 | 0.104 | 0.105 | 0.103 | 0.102 | 0.102 | 0.091 |
| 282 | 0.106 | 0.108 | 0.107 | 0.107 | 0.106 | 0.105 | 0.105 | 0.103 | 0.105 | 0.103 | 0.102 | 0.102 | 0.091 |
| 281 | 0.106 | 0.108 | 0.107 | 0.107 | 0.106 | 0.105 | 0.105 | 0.104 | 0.104 | 0.103 | 0.102 | 0.102 | 0.091 |
| 280 | 0.106 | 0.108 | 0.108 | 0.107 | 0.107 | 0.106 | 0.105 | 0.104 | 0.105 | 0.103 | 0.103 | 0.102 | 0.091 |
| 279 | 0.107 | 0.108 | 0.108 | 0.107 | 0.107 | 0.106 | 0.106 | 0.104 | 0.105 | 0.104 | 0.103 | 0.103 | 0.092 |
| 278 | 0.107 | 0.109 | 0.109 | 0.109 | 0.108 | 0.107 | 0.106 | 0.105 | 0.106 | 0.104 | 0.104 | 0.103 | 0.092 |
| 277 | 0.108 | 0.110 | 0.110 | 0.109 | 0.109 | 0.108 | 0.107 | 0.106 | 0.107 | 0.105 | 0.104 | 0.104 | 0.094 |
| 276 | 0.109 | 0.111 | 0.111 | 0.111 | 0.110 | 0.109 | 0.109 | 0.107 | 0.109 | 0.106 | 0.106 | 0.105 | 0.095 |
| 275 | 0.111 | 0.113 | 0.113 | 0.112 | 0.112 | 0.111 | 0.111 | 0.109 | 0.111 | 0.108 | 0.107 | 0.107 | 0.096 |
| 274 | 0.113 | 0.115 | 0.115 | 0.115 | 0.114 | 0.113 | 0.113 | 0.111 | 0.112 | 0.110 | 0.110 | 0.109 | 0.098 |
| 273 | 0.115 | 0.117 | 0.117 | 0.117 | 0.116 | 0.115 | 0.114 | 0.113 | 0.114 | 0.112 | 0.112 | 0.111 | 0.100 |
| 272 | 0.117 | 0.120 | 0.120 | 0.119 | 0.118 | 0.117 | 0.116 | 0.115 | 0.116 | 0.115 | 0.113 | 0.113 | 0.102 |
| 271 | 0.120 | 0.122 | 0.122 | 0.121 | 0.121 | 0.120 | 0.119 | 0.118 | 0.119 | 0.117 | 0.116 | 0.115 | 0.104 |
| 270 | 0.123 | 0.125 | 0.125 | 0.125 | 0.123 | 0.122 | 0.122 | 0.120 | 0.120 | 0.119 | 0.118 | 0.118 | 0.106 |
| 269 | 0.126 | 0.128 | 0.128 | 0.127 | 0.126 | 0.125 | 0.124 | 0.123 | 0.124 | 0.121 | 0.121 | 0.120 | 0.109 |
| 268 | 0.129 | 0.131 | 0.131 | 0.130 | 0.129 | 0.128 | 0.126 | 0.125 | 0.125 | 0.124 | 0.123 | 0.122 | 0.110 |
| 267 | 0.132 | 0.133 | 0.133 | 0.132 | 0.131 | 0.130 | 0.129 | 0.127 | 0.128 | 0.126 | 0.125 | 0.124 | 0.112 |
| 266 | 0.134 | 0.136 | 0.135 | 0.135 | 0.133 | 0.132 | 0.131 | 0.129 | 0.130 | 0.128 | 0.127 | 0.126 | 0.114 |
| 265 | 0.136 | 0.138 | 0.137 | 0.136 | 0.135 | 0.134 | 0.132 | 0.131 | 0.131 | 0.129 | 0.128 | 0.127 | 0.115 |
| 264 | 0.138 | 0.140 | 0.139 | 0.138 | 0.137 | 0.136 | 0.134 | 0.133 | 0.134 | 0.131 | 0.130 | 0.129 | 0.117 |
| 263 | 0.140 | 0.141 | 0.141 | 0.140 | 0.138 | 0.137 | 0.136 | 0.134 | 0.134 | 0.132 | 0.131 | 0.130 | 0.118 |

|     |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 250 | 0.140 | 0.141 | 0.140 | 0.139 | 0.138 | 0.137 | 0.136 | 0.135 | 0.134 | 0.133 | 0.132 | 0.131 | 0.120 |
| 249 | 0.138 | 0.140 | 0.139 | 0.138 | 0.137 | 0.136 | 0.135 | 0.134 | 0.133 | 0.132 | 0.131 | 0.130 | 0.119 |
| 248 | 0.137 | 0.139 | 0.138 | 0.138 | 0.136 | 0.135 | 0.134 | 0.133 | 0.132 | 0.131 | 0.130 | 0.129 | 0.118 |
| 247 | 0.136 | 0.137 | 0.137 | 0.136 | 0.135 | 0.134 | 0.133 | 0.132 | 0.131 | 0.130 | 0.129 | 0.129 | 0.118 |
| 246 | 0.135 | 0.136 | 0.136 | 0.135 | 0.134 | 0.133 | 0.132 | 0.131 | 0.130 | 0.129 | 0.128 | 0.128 | 0.117 |
| 245 | 0.134 | 0.135 | 0.134 | 0.134 | 0.133 | 0.132 | 0.131 | 0.130 | 0.129 | 0.128 | 0.128 | 0.127 | 0.116 |
| 244 | 0.133 | 0.134 | 0.133 | 0.133 | 0.132 | 0.131 | 0.130 | 0.129 | 0.128 | 0.128 | 0.127 | 0.126 | 0.116 |
| 243 | 0.132 | 0.133 | 0.133 | 0.132 | 0.131 | 0.130 | 0.130 | 0.128 | 0.128 | 0.127 | 0.126 | 0.126 | 0.115 |
| 242 | 0.131 | 0.132 | 0.132 | 0.131 | 0.130 | 0.129 | 0.129 | 0.128 | 0.127 | 0.126 | 0.125 | 0.125 | 0.114 |
| 241 | 0.130 | 0.131 | 0.131 | 0.130 | 0.129 | 0.129 | 0.128 | 0.127 | 0.126 | 0.125 | 0.125 | 0.124 | 0.114 |
| 240 | 0.129 | 0.130 | 0.130 | 0.130 | 0.128 | 0.128 | 0.127 | 0.126 | 0.126 | 0.125 | 0.124 | 0.123 | 0.113 |
| 239 | 0.128 | 0.129 | 0.129 | 0.129 | 0.128 | 0.127 | 0.127 | 0.125 | 0.125 | 0.124 | 0.123 | 0.123 | 0.113 |
| 238 | 0.127 | 0.129 | 0.128 | 0.128 | 0.127 | 0.127 | 0.126 | 0.125 | 0.124 | 0.123 | 0.123 | 0.122 | 0.112 |
| 237 | 0.126 | 0.128 | 0.128 | 0.128 | 0.126 | 0.126 | 0.126 | 0.124 | 0.124 | 0.123 | 0.122 | 0.122 | 0.112 |
| 236 | 0.126 | 0.127 | 0.127 | 0.127 | 0.126 | 0.126 | 0.125 | 0.124 | 0.124 | 0.123 | 0.122 | 0.122 | 0.112 |
| 235 | 0.125 | 0.127 | 0.127 | 0.127 | 0.126 | 0.126 | 0.125 | 0.124 | 0.123 | 0.123 | 0.122 | 0.121 | 0.112 |
| 234 | 0.125 | 0.127 | 0.126 | 0.126 | 0.125 | 0.125 | 0.125 | 0.124 | 0.123 | 0.122 | 0.122 | 0.121 | 0.112 |
| 233 | 0.125 | 0.126 | 0.126 | 0.126 | 0.125 | 0.125 | 0.124 | 0.123 | 0.123 | 0.123 | 0.122 | 0.121 | 0.112 |
| 232 | 0.124 | 0.126 | 0.126 | 0.126 | 0.125 | 0.125 | 0.124 | 0.123 | 0.123 | 0.122 | 0.121 | 0.121 | 0.112 |
| 231 | 0.124 | 0.125 | 0.125 | 0.126 | 0.125 | 0.125 | 0.124 | 0.123 | 0.123 | 0.122 | 0.121 | 0.121 | 0.112 |
| 230 | 0.123 | 0.125 | 0.125 | 0.125 | 0.124 | 0.124 | 0.123 | 0.123 | 0.122 | 0.122 | 0.121 | 0.121 | 0.111 |
| 229 | 0.123 | 0.125 | 0.125 | 0.125 | 0.124 | 0.124 | 0.123 | 0.123 | 0.122 | 0.122 | 0.121 | 0.121 | 0.111 |
| 228 | 0.123 | 0.124 | 0.124 | 0.125 | 0.124 | 0.124 | 0.123 | 0.122 | 0.122 | 0.122 | 0.121 | 0.120 | 0.111 |
| 227 | 0.122 | 0.124 | 0.124 | 0.124 | 0.124 | 0.124 | 0.123 | 0.122 | 0.122 | 0.122 | 0.121 | 0.121 | 0.111 |
| 226 | 0.121 | 0.123 | 0.123 | 0.124 | 0.123 | 0.123 | 0.123 | 0.122 | 0.122 | 0.121 | 0.120 | 0.120 | 0.111 |
| 225 | 0.121 | 0.123 | 0.123 | 0.124 | 0.123 | 0.123 | 0.123 | 0.122 | 0.121 | 0.121 | 0.120 | 0.120 | 0.111 |
| 224 | 0.121 | 0.122 | 0.123 | 0.124 | 0.123 | 0.123 | 0.122 | 0.122 | 0.121 | 0.121 | 0.120 | 0.120 | 0.111 |
| 223 | 0.120 | 0.122 | 0.122 | 0.123 | 0.122 | 0.122 | 0.122 | 0.121 | 0.121 | 0.121 | 0.120 | 0.120 | 0.111 |
| 222 | 0.119 | 0.121 | 0.122 | 0.122 | 0.122 | 0.122 | 0.122 | 0.121 | 0.121 | 0.120 | 0.120 | 0.119 | 0.111 |
| 221 | 0.119 | 0.121 | 0.122 | 0.122 | 0.122 | 0.122 | 0.121 | 0.120 | 0.121 | 0.120 | 0.120 | 0.119 | 0.110 |
| 220 | 0.119 | 0.121 | 0.122 | 0.122 | 0.122 | 0.122 | 0.121 | 0.120 | 0.121 | 0.120 | 0.120 | 0.119 | 0.111 |
| 219 | 0.119 | 0.120 | 0.121 | 0.122 | 0.121 | 0.121 | 0.120 | 0.120 | 0.120 | 0.120 | 0.119 | 0.119 | 0.110 |
| 218 | 0.119 | 0.121 | 0.122 | 0.122 | 0.122 | 0.122 | 0.122 | 0.121 | 0.121 | 0.121 | 0.120 | 0.120 | 0.111 |
| 217 | 0.119 | 0.121 | 0.122 | 0.123 | 0.122 | 0.122 | 0.122 | 0.121 | 0.121 | 0.121 | 0.120 | 0.120 | 0.111 |
| 216 | 0.119 | 0.122 | 0.122 | 0.123 | 0.123 | 0.123 | 0.122 | 0.122 | 0.121 | 0.121 | 0.120 | 0.120 | 0.111 |
| 215 | 0.120 | 0.123 | 0.123 | 0.124 | 0.123 | 0.124 | 0.123 | 0.122 | 0.122 | 0.122 | 0.121 | 0.121 | 0.112 |
| 214 | 0.121 | 0.124 | 0.125 | 0.125 | 0.124 | 0.125 | 0.124 | 0.124 | 0.123 | 0.123 | 0.122 | 0.122 | 0.113 |
| 213 | 0.123 | 0.126 | 0.126 | 0.127 | 0.127 | 0.126 | 0.126 | 0.125 | 0.125 | 0.124 | 0.124 | 0.123 | 0.114 |
| 212 | 0.125 | 0.128 | 0.128 | 0.129 | 0.128 | 0.128 | 0.128 | 0.127 | 0.127 | 0.126 | 0.126 | 0.125 | 0.116 |
| 211 | 0.127 | 0.130 | 0.131 | 0.131 | 0.131 | 0.131 | 0.130 | 0.129 | 0.129 | 0.128 | 0.128 | 0.127 | 0.118 |
| 210 | 0.130 | 0.133 | 0.134 | 0.135 | 0.134 | 0.134 | 0.133 | 0.132 | 0.132 | 0.131 | 0.130 | 0.130 | 0.120 |
| 209 | 0.134 | 0.137 | 0.138 | 0.138 | 0.137 | 0.137 | 0.137 | 0.135 | 0.135 | 0.134 | 0.134 | 0.133 | 0.123 |
| 208 | 0.138 | 0.141 | 0.142 | 0.142 | 0.141 | 0.141 | 0.140 | 0.139 | 0.139 | 0.138 | 0.137 | 0.136 | 0.126 |
| 207 | 0.142 | 0.145 | 0.146 | 0.146 | 0.145 | 0.145 | 0.144 | 0.143 | 0.142 | 0.141 | 0.141 | 0.140 | 0.129 |
| 206 | 0.147 | 0.150 | 0.150 | 0.151 | 0.150 | 0.149 | 0.148 | 0.147 | 0.146 | 0.145 | 0.144 | 0.143 | 0.133 |
| 205 | 0.152 | 0.154 | 0.155 | 0.155 | 0.154 | 0.153 | 0.152 | 0.151 | 0.150 | 0.149 | 0.148 | 0.147 | 0.136 |
| 204 | 0.156 | 0.160 | 0.159 | 0.160 | 0.158 | 0.157 | 0.156 | 0.155 | 0.154 | 0.153 | 0.152 | 0.151 | 0.139 |
| 203 | 0.161 | 0.164 | 0.164 | 0.164 | 0.163 | 0.162 | 0.160 | 0.158 | 0.158 | 0.156 | 0.155 | 0.154 | 0.143 |
| 202 | 0.165 | 0.167 | 0.167 | 0.168 | 0.166 | 0.165 | 0.163 | 0.162 | 0.161 | 0.159 | 0.158 | 0.157 | 0.145 |
| 201 | 0.168 | 0.171 | 0.171 | 0.170 | 0.169 | 0.167 | 0.166 | 0.164 | 0.163 | 0.162 | 0.160 | 0.159 | 0.147 |
| 200 | 0.171 | 0.174 | 0.174 | 0.173 | 0.171 | 0.170 | 0.168 | 0.167 | 0.165 | 0.164 | 0.163 | 0.161 | 0.149 |
| 199 | 0.174 | 0.176 | 0.176 | 0.176 | 0.174 | 0.172 | 0.171 | 0.169 | 0.168 | 0.166 | 0.165 | 0.163 | 0.151 |
| 198 | 0.177 | 0.179 | 0.178 | 0.178 | 0.176 | 0.174 | 0.173 | 0.171 | 0.169 | 0.168 | 0.166 | 0.165 | 0.152 |
| 197 | 0.179 | 0.181 | 0.180 | 0.180 | 0.178 | 0.176 | 0.174 | 0.172 | 0.171 | 0.169 | 0.168 | 0.166 | 0.153 |
| 196 | 0.181 | 0.182 | 0.181 | 0.181 | 0.179 | 0.177 | 0.175 | 0.173 | 0.171 | 0.170 | 0.168 | 0.167 | 0.154 |
| 195 | 0.182 | 0.183 | 0.183 | 0.182 | 0.180 | 0.178 | 0.176 | 0.173 | 0.172 | 0.170 | 0.169 | 0.167 | 0.154 |
| 194 | 0.183 | 0.184 | 0.183 | 0.182 | 0.180 | 0.178 | 0.176 | 0.173 | 0.172 | 0.170 | 0.168 | 0.167 | 0.153 |
| 193 | 0.183 | 0.184 | 0.183 | 0.182 | 0.180 | 0.178 | 0.176 | 0.173 | 0.171 | 0.169 | 0.168 | 0.166 | 0.152 |
| 192 | 0.183 | 0.184 | 0.182 | 0.181 | 0.179 | 0.176 | 0.175 | 0.172 | 0.170 | 0.168 | 0.166 | 0.164 | 0.149 |
| 191 | 0.182 | 0.183 | 0.181 | 0.180 | 0.177 | 0.174 | 0.172 | 0.169 | 0.168 | 0.165 | 0.163 | 0.161 | 0.146 |
| 190 | 0.180 | 0.180 | 0.178 | 0.177 | 0.173 | 0.171 | 0.168 | 0.166 | 0.164 | 0.161 | 0.159 | 0.157 | 0.140 |