

Analysis of Pyrolysis Component Variations in Three Azo Compounds Using Headspace Gas Chromatography-Mass Spectrometry (HS-GC-MS)

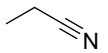
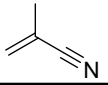
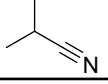
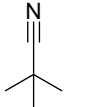
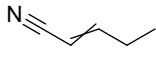
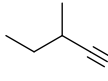
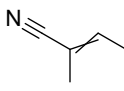
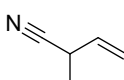
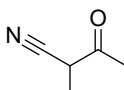
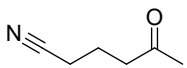
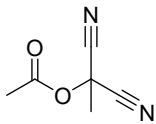
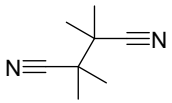
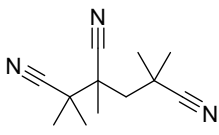
Jinkun Liu,<sup>ab</sup> Zhanfang Liu,<sup>b</sup> Jun Zhu,<sup>b</sup> Guannan Zhang,<sup>b</sup> Yajun Li,<sup>b</sup> Zhenwen Sun,<sup>b</sup> Hong Zhou,<sup>b</sup> Zheng Zhou,<sup>b</sup> Xianhe Deng,<sup>b</sup> Dong Han<sup>a</sup> and Yao Liu<sup>ab</sup>

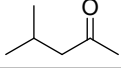
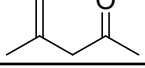
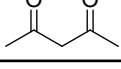
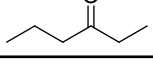
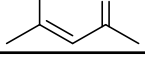
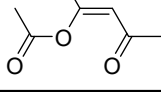
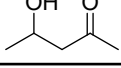
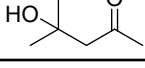
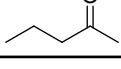
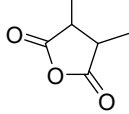
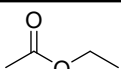
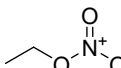
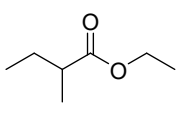
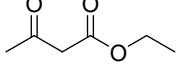
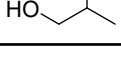
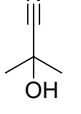
<sup>a</sup>School of Criminal Investigation, People's Public Security University of China, Beijing 100038, China.

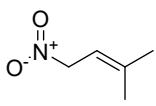
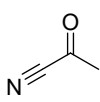
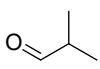
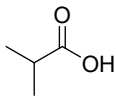
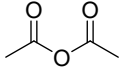
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Supplementary information

1 Table S1. Structures of the identified compounds

| Number | Name                                   | Structure                                                                            | MF <sup>a</sup>                                             | CAS        |
|--------|----------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------|------------|
| C1     | Propanenitrile                         |     | C <sub>3</sub> H <sub>5</sub> N                             | 107-12-0   |
| C2     | Methylacrylonitrile                    |     | C <sub>4</sub> H <sub>5</sub> N                             | 126-98-7   |
| C3     | Isobutyronitrile                       |     | C <sub>4</sub> H <sub>7</sub> N                             | 78-82-0    |
| C4     | 2,2-Dimethyl-propanenitrile            |     | C <sub>5</sub> H <sub>9</sub> N                             | 630-18-2   |
| C5     | 2-Pentenitrile                         |    | C <sub>5</sub> H <sub>7</sub> N                             | 13284-42-9 |
| C6     | 2-Methylbutyronitrile                  |   | C <sub>5</sub> H <sub>9</sub> N                             | 18936-17-9 |
| C7     | 2-Methyl-2-butenitrile                 |   | C <sub>5</sub> H <sub>7</sub> N                             | 4403-61-6  |
| C8     | 2-Methyl-3-butenitrile                 |   | C <sub>5</sub> H <sub>7</sub> N                             | 16529-56-9 |
| C9     | 2-Methyl-3-oxobutyronitrile            |   | C <sub>5</sub> H <sub>7</sub> NO                            | 4468-47-7  |
| C10    | 5-Oxohexanenitrile                     |  | C <sub>6</sub> H <sub>9</sub> NO                            | 10412-98-3 |
| C11    | (Acetyloxy)methyl-propanedinitrile     |   | C <sub>6</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub> | 7790-1-4   |
| C12    | Tetramethylbutanedinitrile             |   | C <sub>8</sub> H <sub>12</sub> N <sub>2</sub>               | 3333-52-6  |
| C13    | 2,3,5-Trimethyl-2,3,5-hexanetricyanide |  | C <sub>12</sub> H <sub>17</sub> N <sub>3</sub>              | 3974-79-6  |

|     |                                         |                                                                                      |                                               |            |
|-----|-----------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------|------------|
| C14 | Acetone                                 |     | C <sub>3</sub> H <sub>6</sub> O               | 67-64-1    |
| C15 | 2-Butanone                              |     | C <sub>4</sub> H <sub>8</sub> O               | 78-93-3    |
| C16 | Methyl Isobutyl Ketone                  |     | C <sub>6</sub> H <sub>12</sub> O              | 108-10-1   |
| C17 | 4-Methyl-4-penten-2-one                 |     | C <sub>6</sub> H <sub>10</sub> O              | 3744-2-3   |
| C18 | Acetylacetone                           |     | C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>  | 123-54-6   |
| C19 | 3-Hexanone                              |     | C <sub>6</sub> H <sub>12</sub> O              | 589-38-8   |
| C20 | 4-Methyl-3-penten-2-one                 |     | C <sub>6</sub> H <sub>10</sub> O              | 141-79-7   |
| C21 | (Z)-4-(Acetoxy)-3-penten-2-one          |     | C <sub>7</sub> H <sub>10</sub> O <sub>3</sub> | 38365-58-1 |
| C22 | 4-Hydroxy-2-pentanone                   |     | C <sub>5</sub> H <sub>10</sub> O <sub>2</sub> | 4161-60-8  |
| C23 | 4-Hydroxy-4-methyl-2-pentanone          |    | C <sub>6</sub> H <sub>12</sub> O <sub>2</sub> | 123-42-2   |
| C24 | 2-Pentanone                             |   | C <sub>5</sub> H <sub>10</sub> O              | 107-87-9   |
| C25 | 3,4-Dimethyl-2,5-dihydrofuran-2,5-dione |   | C <sub>6</sub> H <sub>8</sub> O <sub>3</sub>  | 7475-92-5  |
| C26 | Ethyl acetate                           |   | C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>  | 141-78-6   |
| C27 | Ethyl nitrate                           |   | C <sub>2</sub> H <sub>5</sub> NO <sub>3</sub> | 625-58-1   |
| C28 | Ethyl 2-methylbutyrate                  |  | C <sub>7</sub> H <sub>14</sub> O <sub>2</sub> | 7452-79-1  |
| C29 | Ethyl acetoacetate                      |  | C <sub>6</sub> H <sub>10</sub> O <sub>3</sub> | 141-97-9   |
| C30 | Ethanol                                 |   | C <sub>2</sub> H <sub>6</sub> O               | 64-17-5    |
| C31 | 2-Methyl-1-propanol                     |   | C <sub>4</sub> H <sub>10</sub> O              | 78-83-1    |
| C32 | Acetone cyanohydrin                     |   | C <sub>4</sub> H <sub>7</sub> NO              | 75-86-5    |
| C33 | Isobutylene epoxide                     |   | C <sub>4</sub> H <sub>8</sub> O               | 558-30-5   |
| C34 | 3,3-Dimethyl oxetane                    |   | C <sub>5</sub> H <sub>10</sub> O              | 6921-35-3  |

|     |                             |                                                                                   |                                               |           |
|-----|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------|-----------|
| C35 | 2,2-dimethyl-propanenitrile |  | C <sub>5</sub> H <sub>9</sub> NO <sub>2</sub> | 1809-65-0 |
| C36 | Acetyl cyanide              |  | C <sub>3</sub> H <sub>3</sub> NO              | 631-57-2  |
| C37 | 2-Methyl-propanal           |  | C <sub>4</sub> H <sub>8</sub> O               | 78-84-2   |
| C38 | Acetic acid                 |  | C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>  | 64-19-7   |
| C39 | 2-Methyl-propanoic acid     |  | C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>  | 79-31-2   |
| C40 | Acetic anhydride            |  | C <sub>4</sub> H <sub>6</sub> O <sub>3</sub>  | 108-24-7  |

<sup>a</sup>MF: Molecular formula

2 Table S2. The relative contents of different pyrolysis products

| Sample number | retention time(min) | Compound name                          | Peak area percentage(%) |      |       |
|---------------|---------------------|----------------------------------------|-------------------------|------|-------|
|               |                     |                                        | AIBN                    | ABVN | AMBN  |
| C1            | 2.04                | Propanenitrile                         | -                       | -    | 0.05  |
| C2            | 2.187               | Methylacrylonitrile                    | 9.24                    | 0.24 | -     |
| C3            | 2.368               | Isobutyronitrile                       | 19.36                   | -    | -     |
| C4            | 2.53                | 2,2-Dimethyl-propanenitrile            | 0.16                    | -    | -     |
| C5            | 2.938               | 2-Pentenitrile                         | -                       | -    | 8.43  |
| C6            | 3.256               | 2-Methylbutyronitrile                  | -                       | 0.08 | 19.24 |
| C7            | 3.907               | 2-Methyl-2-butenenitrile               | -                       | -    | 4.51  |
| C8            | 3.923               | 2-Methyl-3-butenenitrile               | -                       | -    | 5.96  |
| C9            | 4.837               | 2-Methyl-3-oxobutyronitrile            | -                       | -    | 0.15  |
| C10           | 5.948               | 5-Oxohexanenitrile                     | 0.12                    | 0.74 | -     |
| C11           | 7.005               | (Acetyloxy)methyl-propanedinitrile     | -                       | -    | 0.14  |
| C12           | 7.989               | Tetramethylbutanedinitrile             | 0.83                    | -    | -     |
| C13           | 10.667              | 2,3,5-Trimethyl-2,3,5-hexanetricyanide | 0.63                    | -    | -     |
| C14           | 1.755               | Acetone                                | 7.02                    | 3.5  | -     |
| C15           | 2.146               | 2-Butanone                             | -                       | -    | 7.87  |
| C16           | 3.466               | Methyl Isobutyl Ketone                 | -                       | 6.59 | -     |
| C17           | 3.587               | 4-Methyl-4-penten-2-one                | -                       | 0.09 | -     |
| C18           | 3.986               | Acetylacetone                          | -                       | 0.25 | -     |
| C19           | 4.042               | 3-Hexanone                             | -                       | -    | 0.16  |
| C20           | 4.245               | 4-Methyl-3-penten-2-one                | -                       | 0.14 | -     |
| C21           | 4.501               | (Z)-4-(Acetoxy)-3-penten-2-one         | -                       | 0.24 | -     |
| C22           | 4.586               | 4-Hydroxy-2-pentanone                  | -                       | 0.21 | -     |
| C23           | 4.905               | 4-Hydroxy-4-methyl-2-                  | -                       | 0.1  | -     |

|     |       |                                         |      |      |      |
|-----|-------|-----------------------------------------|------|------|------|
|     |       | pentanone                               |      |      |      |
| C24 | 6.077 | 2-Pentanone                             | -    | 0.1  | -    |
| C25 | 6.196 | 3,4-Dimethyl-2,5-dihydrofuran-2,5-dione | -    | 0.07 | -    |
| C26 | 2.227 | Ethyl acetate                           | -    | -    | 0.64 |
| C27 | 2.315 | Ethyl nitrate                           | -    | -    | 0.08 |
| C28 | 5.032 | Ethyl 2-methylbutyrate                  | -    | -    | 0.07 |
| C29 | 6.621 | Ethyl acetoacetate                      | -    | -    | 0.1  |
| C30 | 1.647 | Ethanol                                 | -    | -    | 6.46 |
| C31 | 2.363 | 2-Methyl-1-propanol                     | -    | 0.28 | -    |
| C32 | 3.743 | Acetone cyanohydrin                     | 0.42 | -    | -    |
| C33 | 1.904 | Isobutylene epoxide                     | -    | 0.12 | -    |
| C34 | 6.21  | 3,3-Dimethyl oxetane                    | -    | 0.14 | -    |
| C35 | 5.149 | 3-Methyl-1-nitrobut-2-ene               | 0.16 | -    | -    |
| C36 | 1.909 | Acetyl cyanide                          | 6.35 | -    | 7.87 |
| C37 | 1.976 | 2-Methyl-propanal                       | -    | 0.7  | -    |
| C38 | 2.108 | Acetic acid                             | -    | 0.32 | -    |
| C39 | 3.615 | 2-Methyl-propanoic acid                 | -    | 0.15 | -    |
| C40 | 4.537 | Acetic anhydride                        | 0.1  | -    | 0.06 |

3 Table S3. Detection temperatures of different products and corresponding azo compounds

| Number | Compound                               | Temperature(°C) |           |           |           |           |           |           |           |           |           |
|--------|----------------------------------------|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|        |                                        | 60              | 70        | 80        | 90        | 100       | 110       | 120       | 130       | 140       | 150       |
| C1     | Propanenitrile                         | -               | -         | AMBN      | -         | -         | -         | -         | -         | -         | -         |
| C2     | Methylacrylonitrile                    | AIBN            | AIBN      | AIBN      | AIBN      | ABVN,AIBN | AIBN      | AIBN      | AIBN      | AIBN      | ABVN,AIBN |
| C3     | Isobutyronitrile                       | AIBN            | AIBN      | AIBN      | AIBN      | AIBN      | AIBN      | AIBN      | AIBN      | AIBN      | AIBN      |
| C4     | 2,2-Dimethyl-propanenitrile            | -               | -         | -         | -         | -         | -         | -         | -         | -         | AIBN      |
| C5     | 2-Pentenitrile                         | AMBN            | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      |
| C6     | 2-Methylbutyronitrile                  | -               | -         | -         | -         | ABVN,AMBN | -         | -         | -         | -         | AMBN      |
| C7     | 2-Methyl-2-butenenitrile               | AMBN            | AMBN      | AMBN      | -         | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      |
| C8     | 2-Methyl-3-butenenitrile               | -               | -         | -         | AMBN      | -         | -         | -         | -         | -         | -         |
| C9     | 2-Methyl-3-oxobutyronitrile            | -               | -         | -         | -         | -         | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      |
| C10    | 5-Oxohexanenitrile                     | -               | -         | ABVN      | ABVN      | -         | AIBN      | ABVN      | -         | ABVN,AIBN | ABVN,AIBN |
| C11    | (Acetyloxy)methyl-propanedinitrile     | -               | -         | -         | AMBN      | AMBN      | AMBN      | AMBN      | -         | AMBN      | AMBN      |
| C12    | Tetramethylbutanedinitrile             | AIBN            | AIBN      | AIBN      | AIBN      | AIBN      | AIBN      | AIBN      | AIBN      | AIBN      | AIBN      |
| C13    | 2,3,5-Trimethyl-2,3,5-hexanetricyanide | -               | -         | -         | -         | -         | -         | -         | -         | -         | AIBN      |
| C14    | Acetone                                | AIBN            | AIBN,AIBN | AIBN,ABVN | AIBN,AIBN | AIBN,AIBN | AIBN,ABVN | AIBN,ABVN | AIBN,ABVN | AIBN,ABVN | AIBN,ABVN |
| C15    | 2-Butanone                             | AMBN            | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      | AMBN      |
| C16    | Methyl Isobutyl Ketone                 | ABVN            | ABVN      | ABVN      | ABVN      | ABVN      | ABVN      | ABVN      | ABVN      | ABVN      | ABVN      |
| C17    | 4-Methyl-4-penten-2-one                | -               | -         | -         | ABVN      | -         | -         | -         | -         | ABVN      | ABVN      |

|     |                                         |      |      |      |               |               |           |               |               |               |               |
|-----|-----------------------------------------|------|------|------|---------------|---------------|-----------|---------------|---------------|---------------|---------------|
| C18 | Acetylacetone                           | -    | -    | -    | ABVN          | -             | -         | -             | ABVN          | ABVN          | ABVN          |
| C19 | 3-Hexanone                              | AMBN | AMBN | AMBN | AMBN          | AMBN          | AMBN      | AMBN          | AMBN          | AMBN          | AMBN          |
| C20 | 4-Methyl-3-penten-2-one                 | -    | -    | -    | -             | -             | -         | -             | -             | ABVN          | ABVN          |
| C21 | (Z)-4-(Acetoxy)-3-penten-2-one          | -    | -    | -    | -             | -             | -         | -             | -             | -             | ABVN          |
| C22 | 4-Hydroxy-2-pentanone                   | -    | -    | -    | -             | -             | -         | -             | ABVN          | -             | -             |
| C23 | 4-Hydroxy-4-methyl-2-pentanone          | -    | -    | -    | ABVN          | -             | -         | -             | -             | -             | -             |
| C24 | 2-Pentanone                             | -    | -    | -    | ABVN          | -             | ABVN      | ABVN          | -             | ABVN          | ABVN          |
| C25 | 3,4-Dimethyl-2,5-dihydrofuran-2,5-dione | -    | -    | -    | -             | -             | -         | ABVN          | -             | ABVN          | -             |
| C26 | Ethyl acetate                           | AMBN | AMBN | AMBN | AMBN          | AMBN          | AMBN      | AMBN          | AMBN          | AMBN          | AMBN          |
| C27 | Ethyl nitrate                           | -    | AMBN | AMBN | -             | -             | -         | -             | -             | -             | -             |
| C28 | Ethyl 2-methylbutyrate                  | AMBN | AMBN | AMBN | -             | -             | -         | -             | -             | -             | -             |
| C29 | Ethyl acetoacetate                      | -    | -    | -    | -             | -             | AMBN      | AMBN          | AMBN          | -             | AMBN          |
| C30 | Ethanol                                 | -    | AMBN | AMBN | -             | -             | -         | -             | -             | -             | -             |
| C31 | 2-Methyl-1-propanol                     | ABVN | ABVN | ABVN | ABVN          | ABVN          | ABVN      | ABVN          | ABVN          | ABVN          | ABVN          |
| C32 | Acetone cyanohydrin                     | -    | -    | -    | AIBN          | AIBN          | AIBN      | AIBN          | AIBN          | AIBN          | AIBN          |
| C33 | Isobutylene epoxide                     | -    | -    | -    | -             | -             | -         | -             | ABVN          | ABVN          | ABVN          |
| C34 | 3,3-Dimethyl oxetane                    | -    | -    | -    | -             | -             | ABVN      | -             | ABVN          | -             | ABVN          |
| C35 | 3-Methyl-1-nitrobut-2-ene               | -    | -    | -    | AIBN          | -             | AIBN      | AIBN          | AIBN          | AIBN          | AIBN          |
| C36 | Acetyl cyanide                          | AMBN | AMBN | AMBN | AIBN,A<br>MBN | AIBN,A<br>MBN | AIBN,AMBN | AIBN,AMB<br>N | AIBN,AMB<br>N | AIBN,AMB<br>N | AIBN,AMB<br>N |
| C37 | 2-Methyl-propanal                       | -    | ABVN | ABVN | ABVN          | ABVN          | ABVN      | ABVN          | ABVN          | ABVN          | ABVN          |
| C38 | Acetic acid                             | -    | -    | -    | -             | ABVN          | ABVN      | ABVN          | ABVN          | ABVN          | ABVN          |
| C39 | 2-Methyl-propanoic acid                 | -    | -    | -    | -             | -             | -         | -             | ABVN          | -             | -             |
| C40 | Acetic anhydride                        | -    | -    | -    | AMBN          | -             | AIBN      | AIBN          | AIBN          | AIBN          | AIBN          |

4 Table S4. Gas chromatographic data used for making clustering heat maps and OPLS-DA

| Sample     | C14      | C15      | C2       | C27      | C31      | C3       | C5     | C6     | C16      | C7     | C8     | C28      |
|------------|----------|----------|----------|----------|----------|----------|--------|--------|----------|--------|--------|----------|
| AIBN-60°C  | 1009056  | 1497715  | 6038588  | 2123570  | 6878329  | 4989390  | 44507  | 46395  | 39749    | 38711  | 38214  | 37014    |
| AIBN-70°C  | 634567   | 298690   | 5423913  | 473725   | 6308296  | 4765109  | 33405  | 36140  | 34203    | 32286  | 32126  | 29661    |
| AIBN-80°C  | 507774   | 314702   | 6819207  | 511294   | 7873230  | 6026117  | 31049  | 30119  | 28357    | 31532  | 29936  | 27788    |
| AIBN-90°C  | 5200931  | 1267534  | 17665541 | 1479746  | 24300640 | 26373592 | 38609  | 40922  | 33421    | 113829 | 97818  | 31886    |
| AIBN-100°C | 6262782  | 5657633  | 7350099  | 8221353  | 10377521 | 6410766  | 34831  | 32586  | 30772    | 41887  | 34340  | 33159    |
| AIBN-110°C | 11339101 | 10750105 | 13288188 | 13066848 | 26424378 | 19729148 | 40642  | 42169  | 34665    | 104205 | 68955  | 34571    |
| AIBN-120°C | 11635600 | 4541518  | 15444379 | 6151240  | 26425676 | 27421475 | 54433  | 52444  | 43516    | 104196 | 74876  | 39744    |
| AIBN-130°C | 13558334 | 6053636  | 15106278 | 7945193  | 27192094 | 28056084 | 50583  | 49664  | 37235    | 109484 | 80459  | 36858    |
| AIBN-140°C | 15881983 | 7369564  | 15752906 | 9552675  | 28936919 | 30449106 | 56926  | 61717  | 40327    | 109891 | 74230  | 39494    |
| AIBN-150°C | 16927061 | 4946498  | 16458877 | 6735524  | 29026190 | 30977010 | 69151  | 88201  | 40300    | 118376 | 84262  | 37556    |
| ABVN-60°C  | 91907    | 52833    | 50347    | 41332    | 42930    | 43355    | 39186  | 43449  | 90881    | 40663  | 40085  | 45957    |
| ABVN-70°C  | 467017   | 78127    | 81689    | 34741    | 105096   | 105835   | 33994  | 56409  | 1393057  | 34659  | 35108  | 105236   |
| ABVN-80°C  | 1429867  | 155491   | 89501    | 84374    | 226796   | 179760   | 34624  | 64922  | 2392447  | 58087  | 54586  | 225784   |
| ABVN-90°C  | 1798493  | 171124   | 217698   | 44869    | 751014   | 719536   | 60775  | 216713 | 16181551 | 157748 | 161114 | 26540875 |
| ABVN-100°C | 2426454  | 480416   | 418578   | 88373    | 525389   | 461690   | 147715 | 389205 | 8625856  | 523855 | 584667 | 25364558 |
| ABVN-110°C | 3281235  | 373657   | 464526   | 69279    | 541768   | 487480   | 126204 | 304960 | 7618790  | 302274 | 387021 | 25202691 |
| ABVN-120°C | 3236053  | 232214   | 520445   | 53559    | 471696   | 472587   | 96276  | 226121 | 7383760  | 218717 | 306650 | 23935031 |

|            |         |          |          |        |        |        |          |          |         |          |          |          |
|------------|---------|----------|----------|--------|--------|--------|----------|----------|---------|----------|----------|----------|
| ABVN-130°C | 3665241 | 404617   | 562361   | 82456  | 584632 | 576282 | 128617   | 316557   | 9342230 | 299979   | 420359   | 24491033 |
| ABVN-140°C | 4800059 | 420337   | 394546   | 81563  | 570066 | 509456 | 116665   | 256028   | 8185292 | 242335   | 266143   | 25081242 |
| ABVN-150°C | 6468912 | 573166   | 423726   | 93622  | 626209 | 550147 | 103291   | 222602   | 7206122 | 282575   | 199958   | 26151393 |
| AMBN-60°C  | 191581  | 393291   | 108833   | 42154  | 37876  | 36447  | 503135   | 436887   | 29088   | 121939   | 45620    | 113210   |
| AMBN-70°C  | 254857  | 879783   | 156079   | 75461  | 49596  | 45379  | 1133605  | 954294   | 31911   | 259496   | 73071    | 119360   |
| AMBN-80°C  | 434569  | 4978868  | 723052   | 138615 | 56283  | 46691  | 3941094  | 5288869  | 27695   | 795614   | 151555   | 77112    |
| AMBN-90°C  | 896960  | 12752376 | 3689505  | 259210 | 153562 | 115107 | 16848820 | 26973633 | 106887  | 13637203 | 17812618 | 367965   |
| AMBN-100°C | 655361  | 10984579 | 3075878  | 123346 | 97309  | 78926  | 9902140  | 19056567 | 59503   | 6194964  | 1170192  | 99147    |
| AMBN-110°C | 1138383 | 14867869 | 5802793  | 219061 | 185030 | 144374 | 15185111 | 25983442 | 131643  | 12900394 | 15023574 | 282490   |
| AMBN-120°C | 770826  | 13784339 | 4665351  | 172591 | 135350 | 107944 | 12792490 | 25649853 | 103109  | 12935234 | 5077878  | 187376   |
| AMBN-130°C | 1163461 | 18431485 | 10921775 | 313208 | 240219 | 204645 | 15656372 | 26894155 | 227469  | 13074152 | 18139956 | 455796   |
| AMBN-140°C | 933604  | 20245711 | 10232511 | 272518 | 181668 | 146419 | 13542995 | 27531444 | 149658  | 13574774 | 6178083  | 229316   |
| AMBN-150°C | 727401  | 15314772 | 6015584  | 169379 | 127465 | 104118 | 9753128  | 20868941 | 81930   | 7383946  | 1580349  | 118651   |

Note: The data in the table represent the chromatographic signal intensities of different samples measured at various temperatures.