Supporting Information

Size analysis of large DNA molecules by relaxation time measurement using a nanoslit channel

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Figure S5. Relaxation time histogram for the number of datasets increased in order in a nanoslit with 69 nm.

Figure S6. Relaxation time histogram for the number of datasets increased in order in a nanoslit with 49 nm.
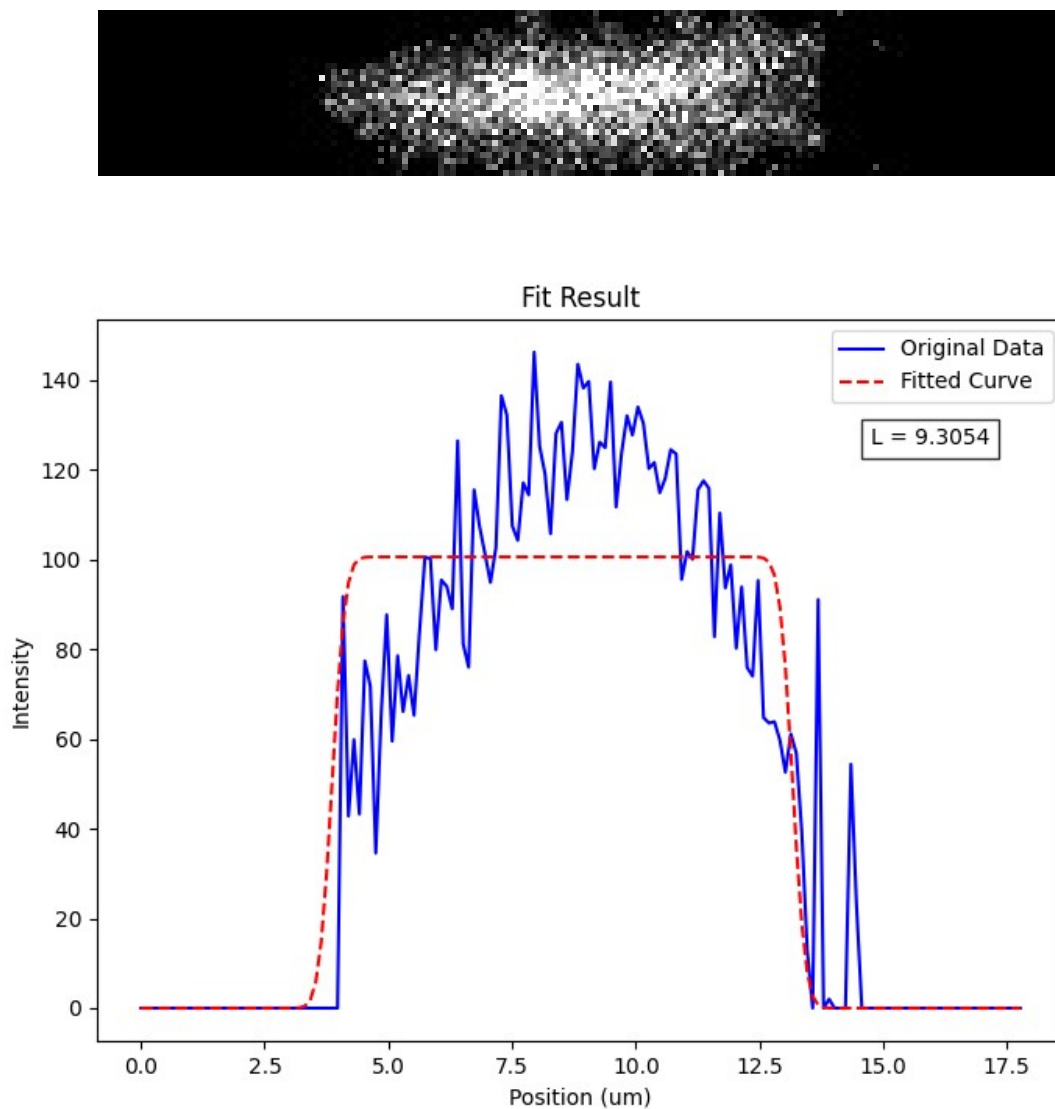

Figure S1. The intensity distribution along *x*-direction $I(x)$ and fitted curve for one DNA molecule.
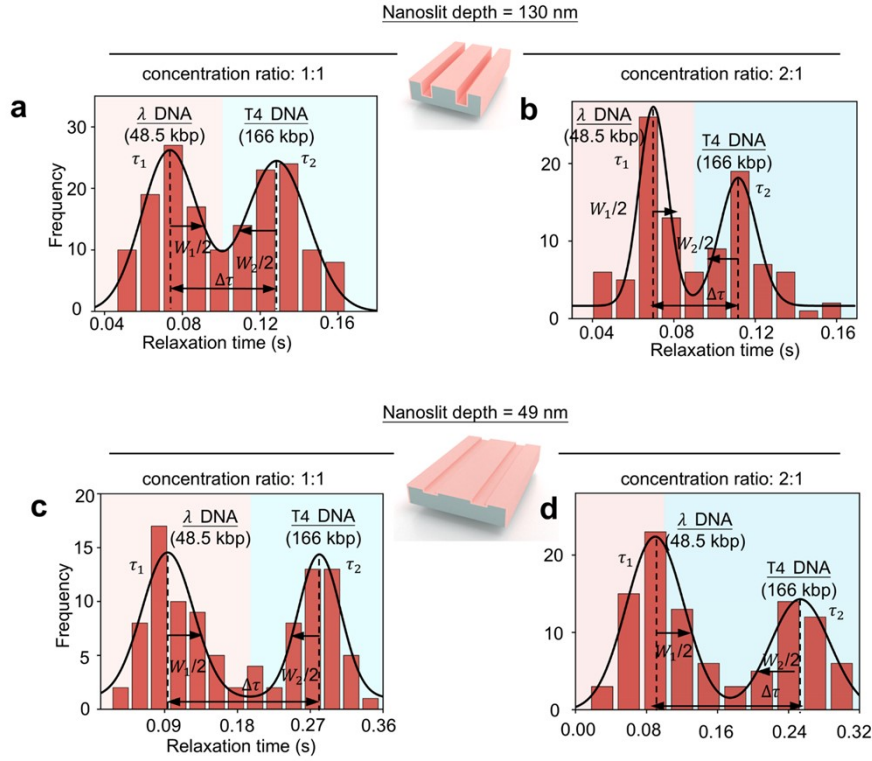
Figure S2. Relaxation time histogram and Gaussian fitting results of a mixed DNA sample (λ DNA: T4 DNA = 1: 1) in a nanoslit channel of depth 130 (a) and 49 (c) nm. Relaxation time histogram and Gaussian fitting results of a mixed DNA sample (λ DNA: T4 DNA = 2: 1) in a nanoslit channel of depth 130 (b) and 49 (d) nm. $\tau 2$ and $\tau 1$ are the average values of the two peaks and $\Delta\tau = \tau 2 - \tau 1$. W1 and W2 are full widths at half the maximum values of the two peaks.
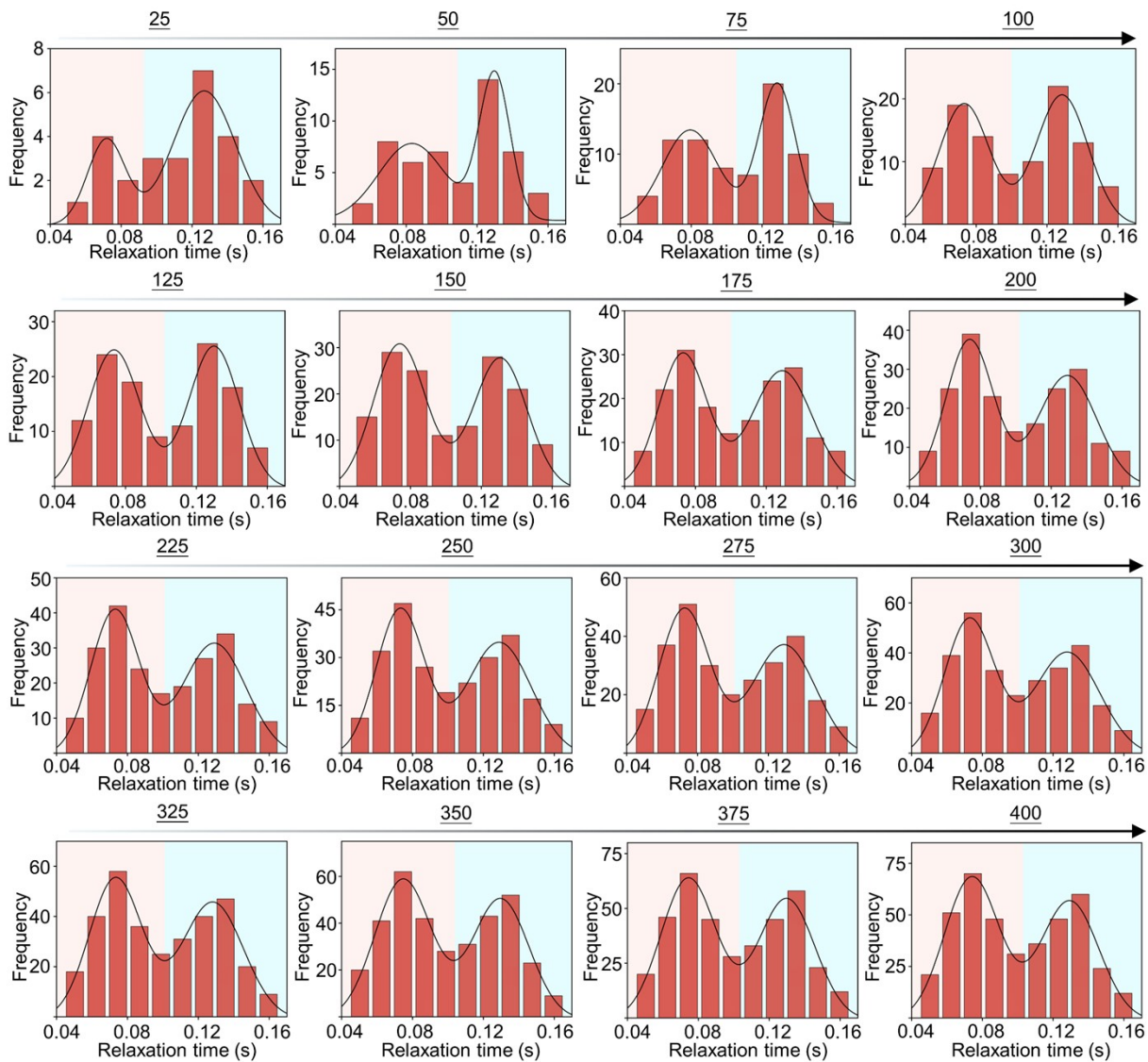
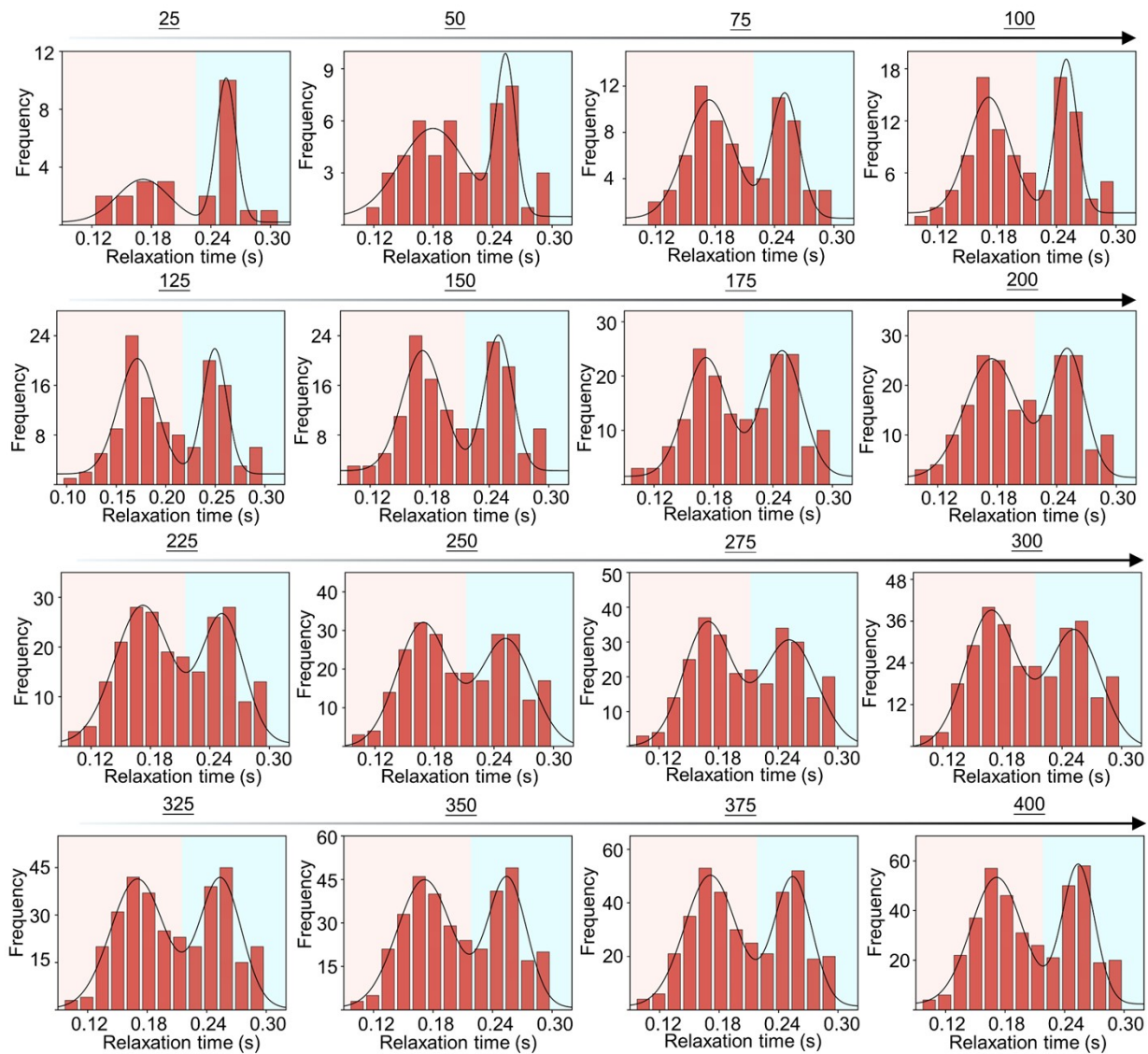**Figure S3.** Relaxation time histogram for the number of datasets increased in order in a nanoslit with 130 nm.

Figure S4. Relaxation time histogram for the number of datasets increased in order in a nanoslit with 110 nm.
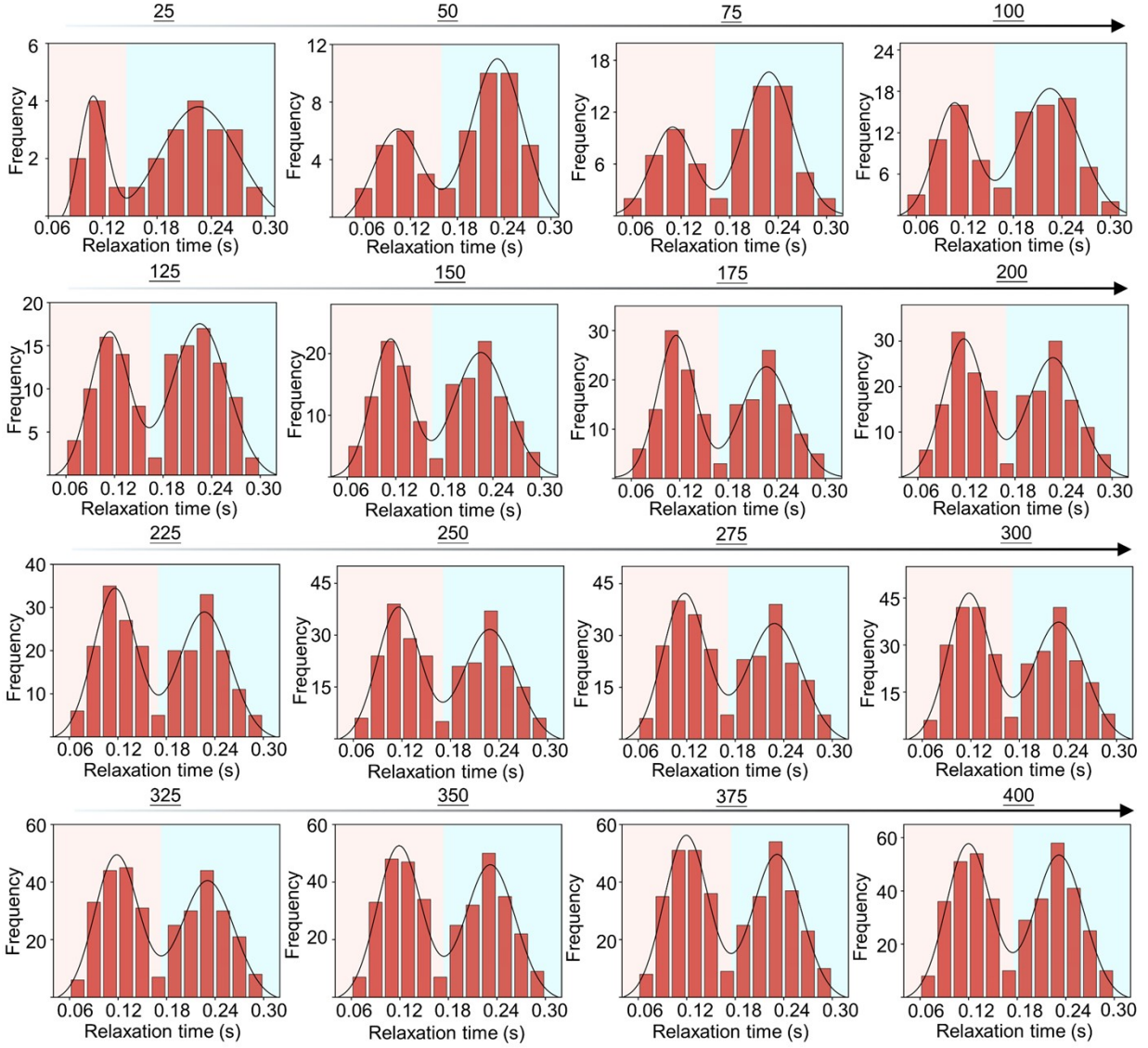
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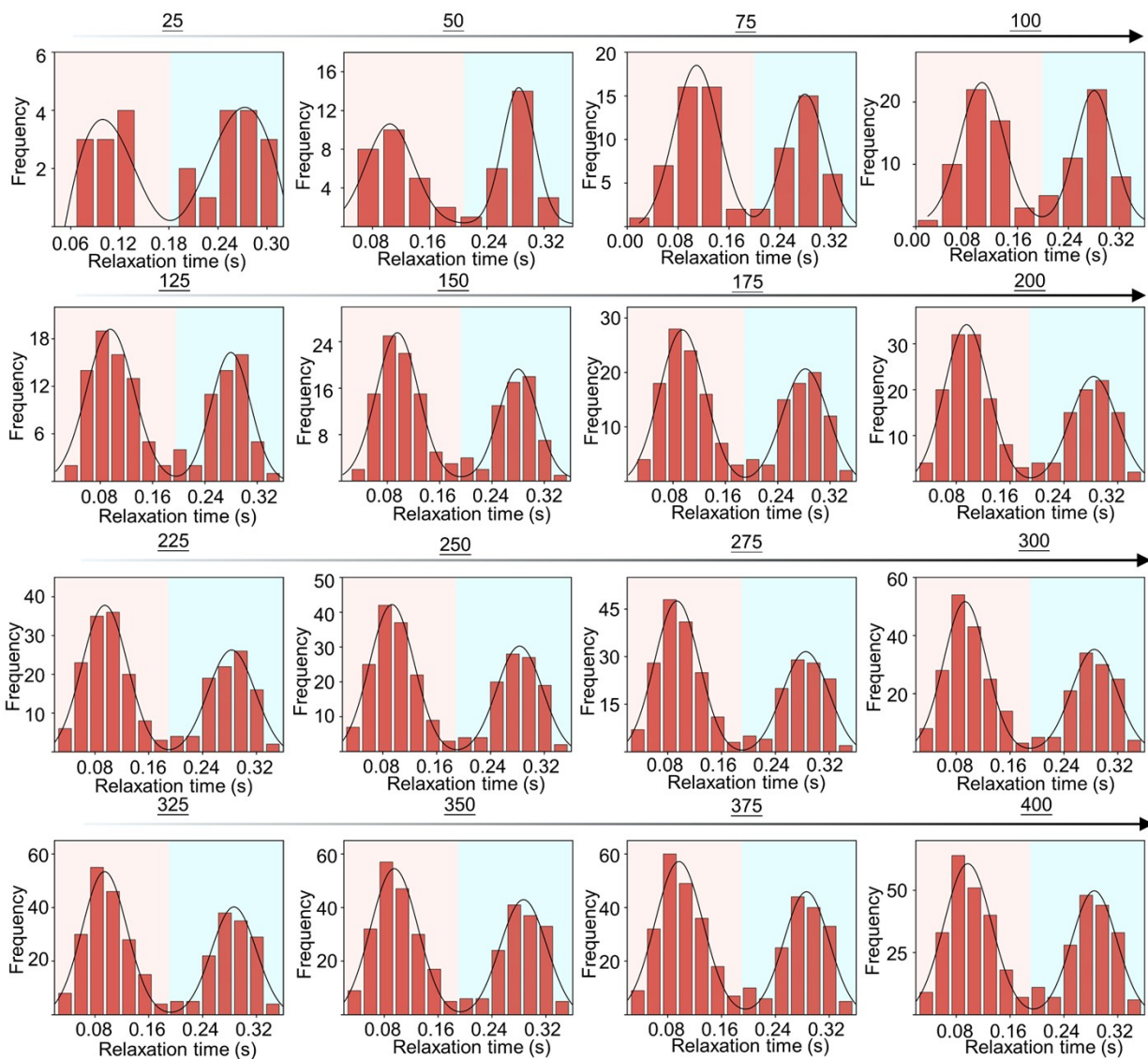
Figure S6. Relaxation time histogram for the number of datasets increased in order in a nanoslit with 49 nm.