

## Supporting Information

### Structures of the kinetically trapped i-motif DNA intermediates

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Figure 1. TIMS profiles as a function of the desolvation time for  $[M-5H]^{-5}$  i-motif DNA.

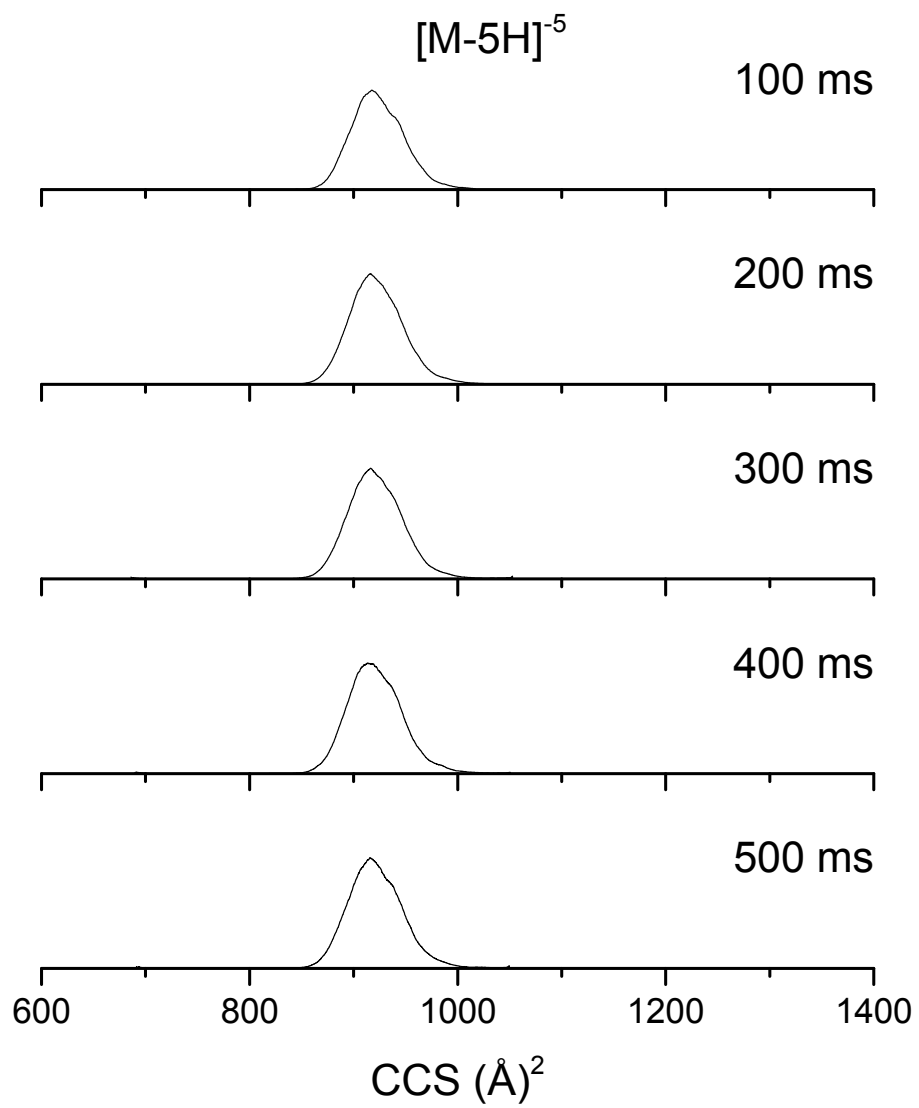


Figure 2. TIMS profiles as a function of the desolvation time for [M-6H]<sup>-6</sup> i-motif DNA.

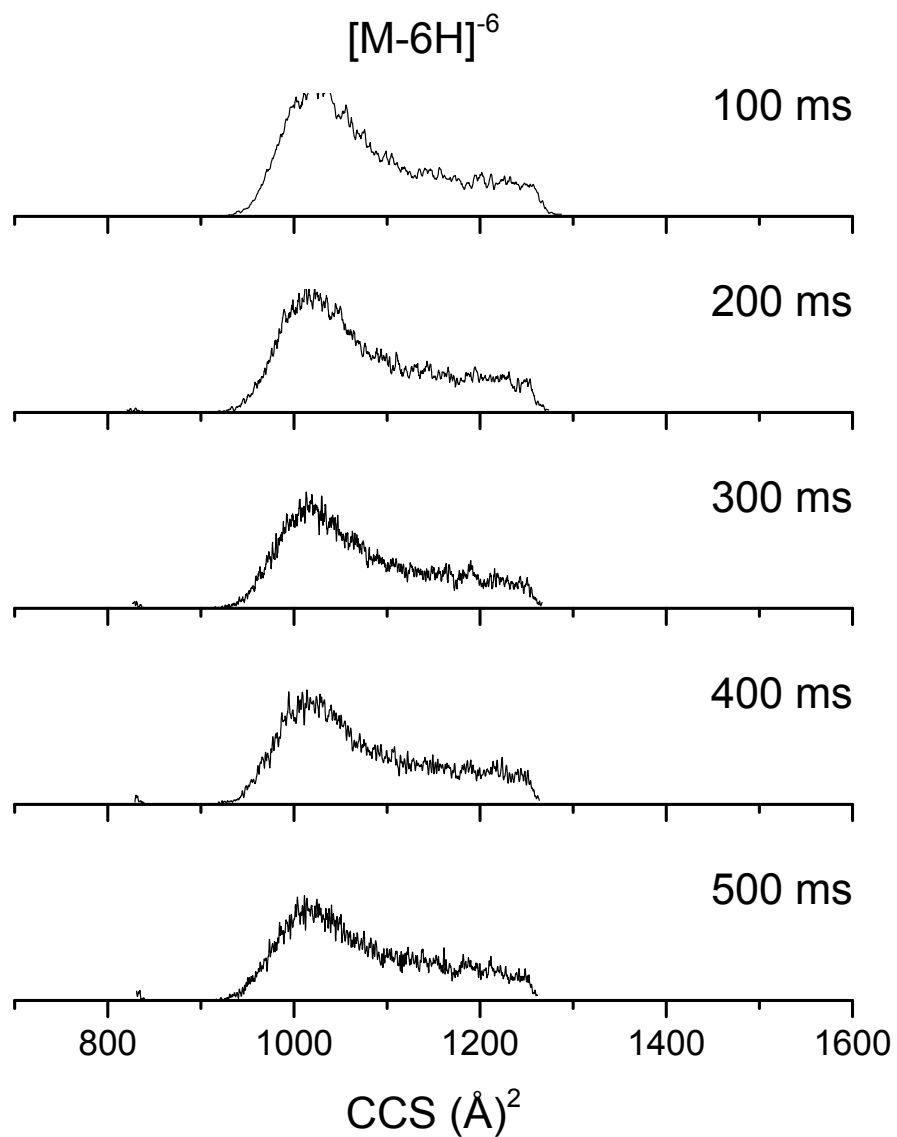


Figure 3. TIMS profiles as a function of the desolvation time for  $[M-7H]^{-7}$  i-motif DNA.

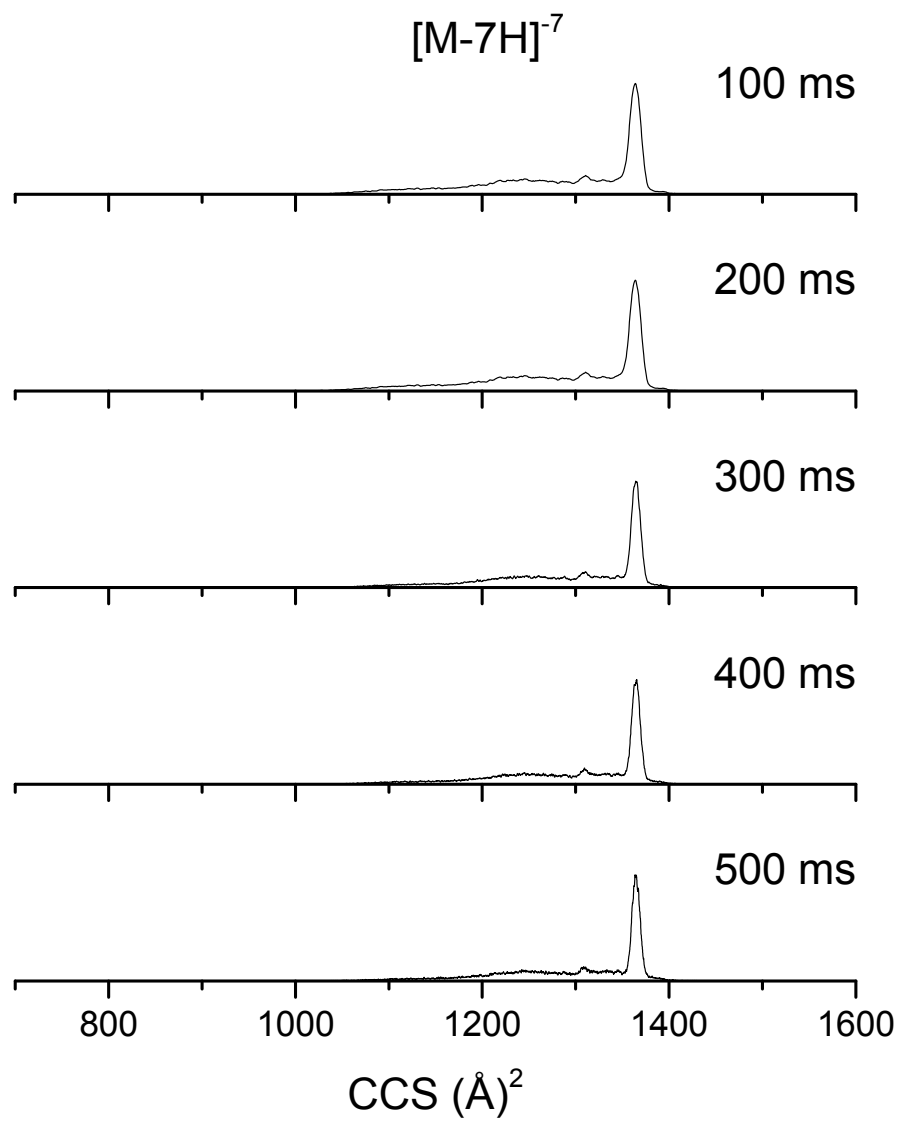


Figure 4. TIMS profiles as a function of the desolvation time for  $[M-8H]^{-8}$  i-motif DNA.

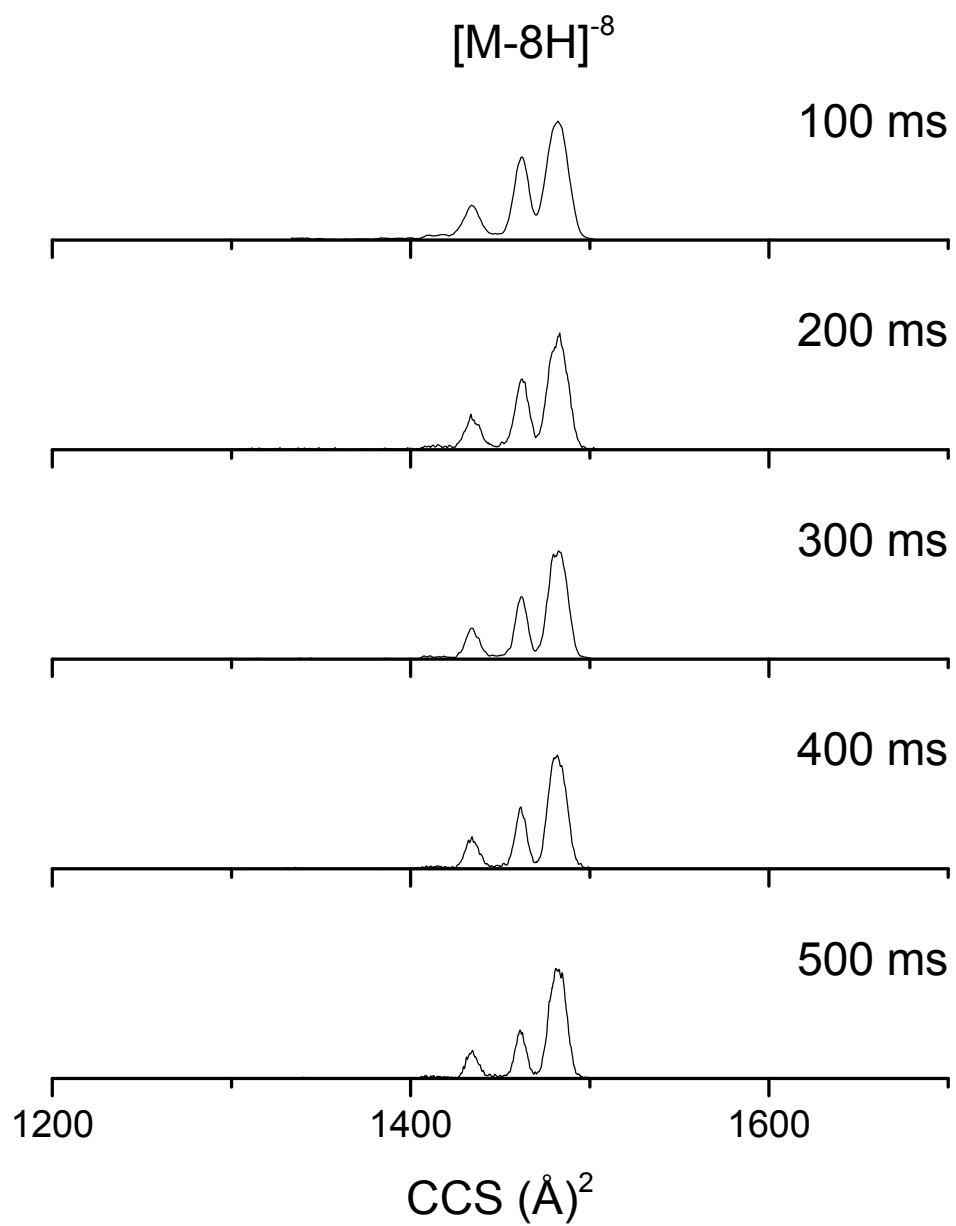


Figure 5. TIMS profiles as a function of the desolvation time for  $[M-9H]^{-9}$  i-motif DNA.

