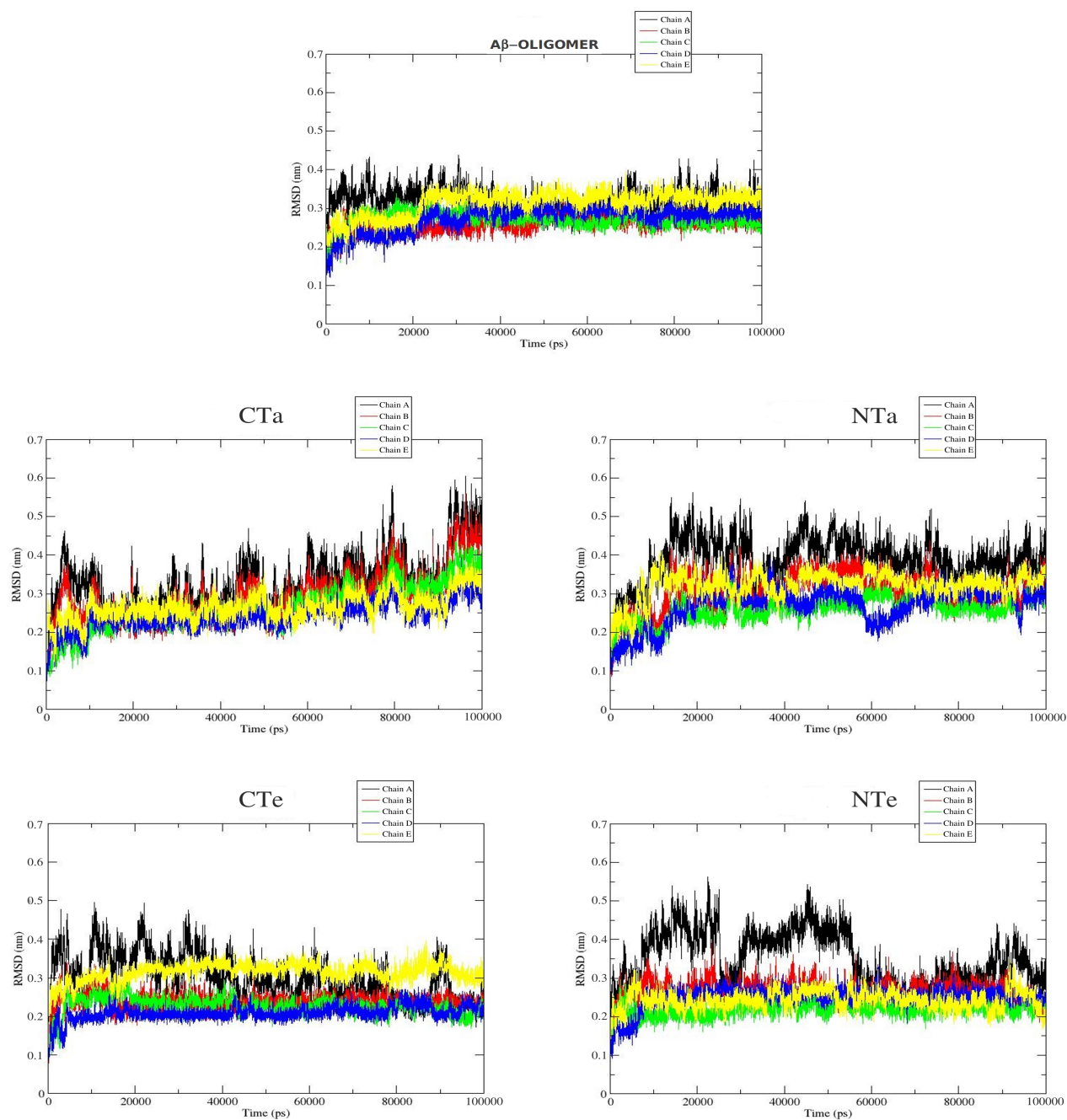
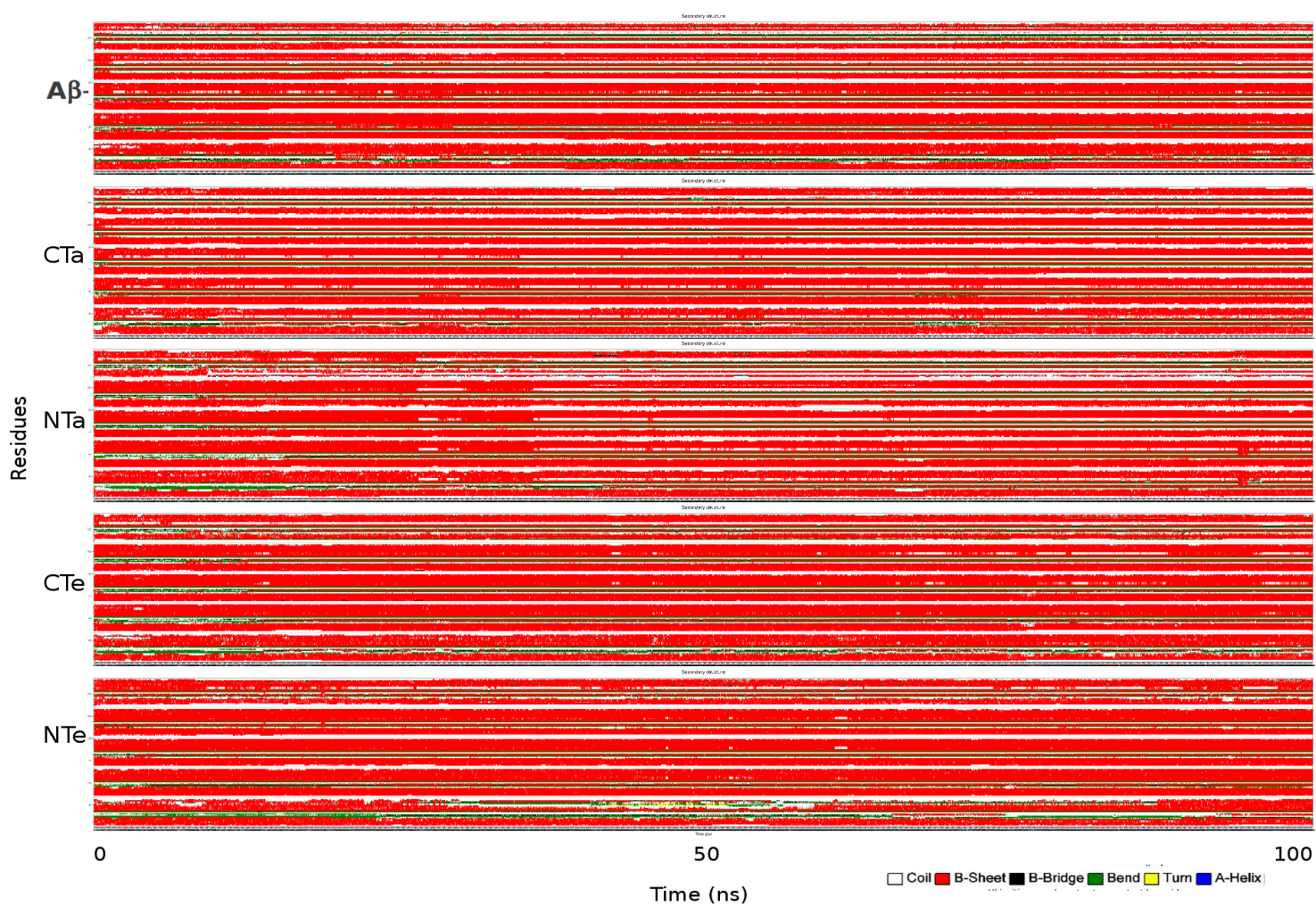


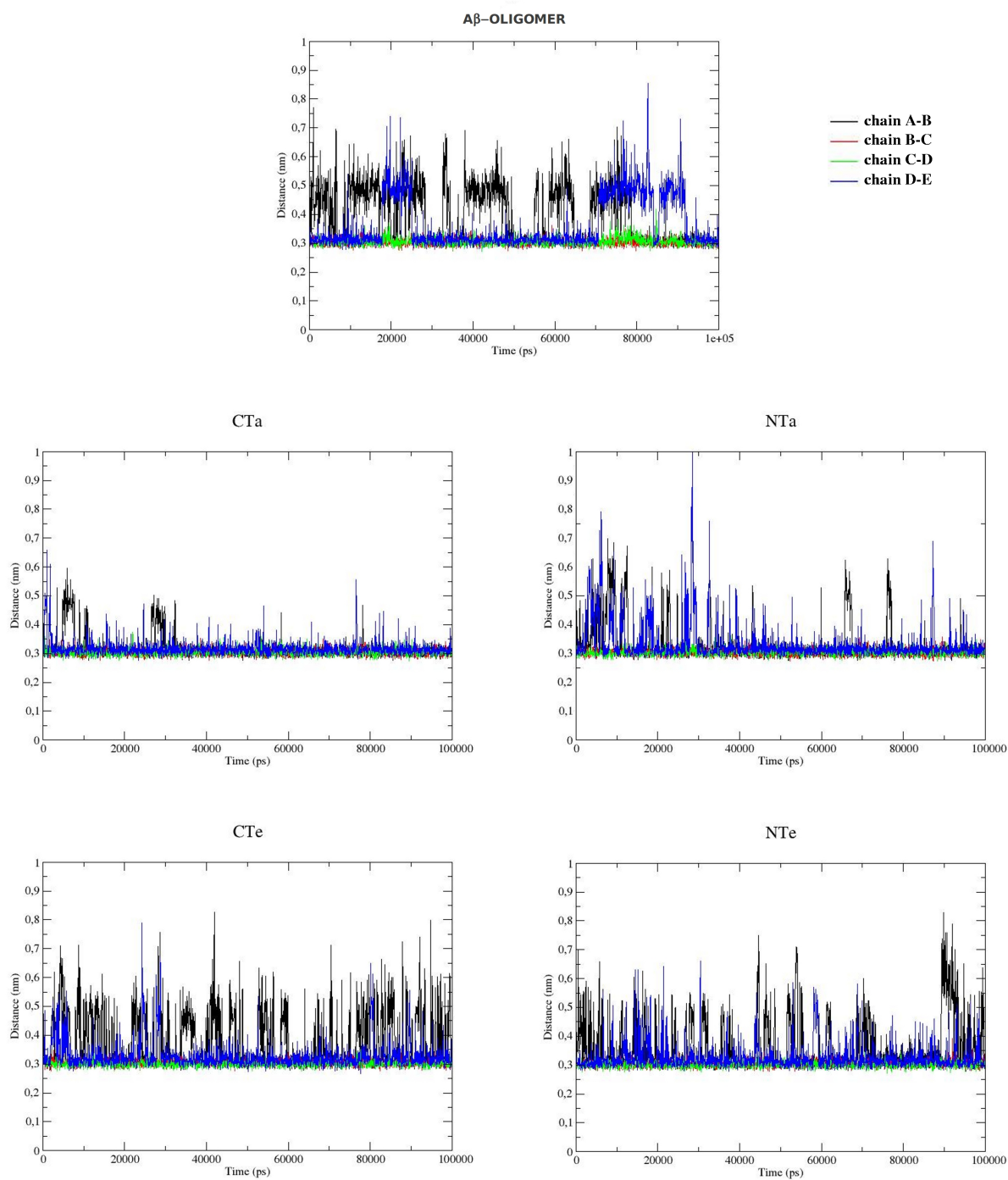
## Supplementary Material



**Figure S1:** Root mean-square deviation of the C $\alpha$  carbon atom positions in all the systems as a function of time, computed per chains.



**Figure S2:** Secondary structures as function of time for each systems, indicated by the labels, as calculated by DSSP.



**Figure S3:** D23-K28 distances as a function of time for the all the systems.