

Abstract Submitted
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Anomalous small-angle x-ray scattering (ASAXS) study of multivalent ion-DNA interactions KURT ANDRESEN, JESSICA LAMB, XI-ANGYUN QIU, LISA KWOK, HYE YOON PARK, LOIS POLLACK, Cornell University — Multivalent ion-DNA interactions are important for biological function. The condensation and aggregation of DNA by multivalent ions has been extensively studied theoretically and (to a lesser extent) experimentally. We report on the related, but largely unexplored, interactions between DNA and multivalent ions below the critical concentration for condensation/aggregation. Using ASAXS, a technique used for previous studies of monovalent and divalent atmospheres around DNA, we have investigated the competition of monovalent and trivalent ions around the biopolymer. These data should prove vital for modeling DNA-trivalent ion interactions and the mechanisms of DNA condensation and aggregation.

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