



سمینار هفتگی گروه ماده چگال نرم

## **Orientationally ordered aggregates of stiff polyelectrolytes in the presence of multivalent salt**

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Aggregation of stiff polyelectrolytes in solution and angle- and distance-dependent potential of mean force between two like-charged rods are studied in the presence of 3-valent salt using molecular dynamics simulations. In the bulk solution, formation of long-lived metastable structures with similarities to the raft-like structures of actin filaments is observed within a range of salt concentration. The system finally goes to a state with lower free energy in which finite-sized bundles of parallel polyelectrolytes form. Preferred angle and interaction type between two like-charged rods at different separations and salt concentrations are also studied, which shed some light on the formation of orientationally ordered structures.

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**مکان:** آمفی تئاتر دانشکده فیزیک

قطب ماده چگال و سیستم‌های پیچیده