

GRK 2516 Soft Matter Seminar

Nov. 10, 2022 at 2:30 p.m.
Minkowski Room, 05-119, Staudingerweg 7

Research seminar of the DFG Research Training Group GRK 2516 (<https://grk2516.uni-mainz.de>).

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Molecular Dynamics Simulation of Self-Assembled Supramolecular Copolymers

Sequence controlled polymerization is an inevitable process in natural systems. The amino acid sequence arrangement is the vital part in determining the structure function of proteins. This process of selection and formation of sequence interests scientists to build polymers that are made of self-assembled monomers that interact through Van der Waals interactions such as hydrogen bonds and hydrophobic interactions. In this talk I will be discussing the copolymerization of two monomers that are having hydrophobic and hydrophilic domains whose interplay induces a supramolecular polymerization in water. We discuss the concentration factors that can contribute to the formation of homopolymers and copolymers with different sequences.

References :
Macromol. Rapid Commun. 2021, 2100473
Macromolecules 2019, 52, 7661–7667
J. Am. Chem. Soc. 2020, 142, 16, 7606–7617