Inducing Structure in Polymers by Organometallic Surfactants: The Strength of Weak Interactions

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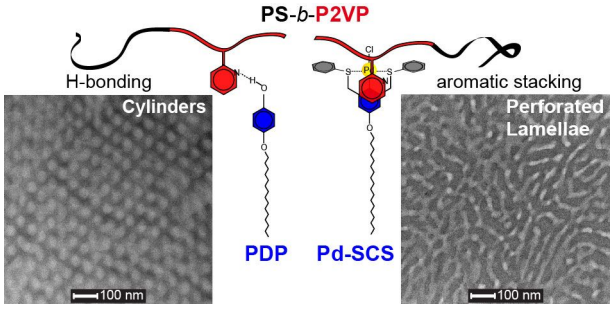
Employing non-covalent interactions opens many opportunities for structuring polymers on the molecular level and at the nanoscale. Specifically, designing surfactants to interact with functional groups in polymers leads to periodic structures due to the inherent phase separation properties of the surfactant.

The presentation will describe the utilization of palladium-pincer-based surfactants for the creation of hierarchical structures with homopolymers[1,2] and block copolymers.[3,4] It will be shown that employing weak supramolecular interactions between the surfactant and the polymer opens new opportunities for kinetically controlled polymer structuring. Lastly, the preparation of anisotropically ordered nanocomposites will be demonstrated.



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