

Interaction study between microgels, surfactants and perfumes

Gesucht. Bachelor or Master's student to synthesize hydrophobic microgels with applications in perfume deposition.

Thematik. The aim of the present project is to study the possibility of using hydrophobic microgels as perfume carriers in aqueous surfactant solutions. Perfume molecules are low molecular weight organic compounds with limited solubility in water. We want to gain vital knowledge of the interactions among the various components in solutions and to understand the role of the microgel and surfactant (if any) in the loading and transport of the perfume, and their deposition on and release from textile fabrics (especially cotton or polyester) during the washing and rinsing of a normal laundry cycle.

Anforderungen. This is an industrial project that offers an opportunity to learn about synthesis and characterisation of microgels in aqueous solutions for real potential applications. The student should have a broad interest in polymeric and/or soft matter (colloidal) systems. Knowledge of synthetic chemistry not necessary but can be an advantage.

Sie Lernen:

- Synthesis and characterization of microgels (possibly also fluorescently-labelled microgels)
- Interactions microgel/surfactants, surfactant/perfume, microgel/perfume and microgel/surfactant/perfume.
- Various characterization techniques such as light scattering (DLS & SLS), NMR, zeta potentials, and (maybe) fluorescent spectroscopy.

Beginn ab: 01.10.2016

Dauer: 6 Monate (bei Bachelorarbeit 3 Monate)

Arbeitsaufwand: hoch

Dozent: Dr. John E. Wong/Dr. Carlos G. Lopez/Prof. Walter Richtering

Interesse? Bei Interesse eine Email an Dr. Wong mit Lebenslauf,
Zeugnisse/Campusauszug/kurze Beschreibung der vorherigen
Bachelor-/Forschungsarbeiten

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