



Seminarankündigung

Mittwoch, 25. April 2018

16:00 Uhr

WSI, Seminarraum S 101

“Plasmonic and dielectric nanocavities for enhancing light/matter interactions and nanolocalized chemistry”

Plasmonic nanocavities consisting of metallic nanoparticles allow the concentration of light to the nanoscale. While research has up to this point focused almost entirely on this photonic localization aspect, in this talk I will show that metallic nanostructures also allow for highly confined hot spots of chemical reactivity, involving the transfer of hot electrons generated via plasmon decay. This will enable the rational development of structures for nanolocalized surface chemistry and catalysis.

The second part of the talk will focus on dielectric nanocavities and their applications in surface-enhanced fluorescence emission and nonlinear optics, focusing on nanostructures consisting of GaP, Si, and Ge. New opportunities for these material systems as a complementary platform to plasmonics will be discussed.

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