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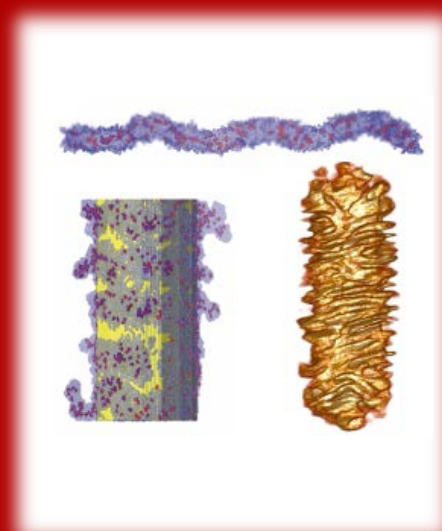
## *Surfactant Micelles and Nanocrystal Growth: A Recurring Marriage*

Venerdì 19 Febbraio 2021, ore 15.00

Zoom: <https://unipd.zoom.us/j/96009769790>

Surfactants are often quoted as “shape-directing agents” during the growth of anisotropic nanocrystals. This concept is particularly important in the so-called seeded growth of metal nanocrystals, and in particular of gold nanorods. However, the precise role of surfactants is still under debate, as well as their organization on the metal surface. Therefore, the phase behavior of surfactants, as well as the influence of different additives has been re-examined to optimize nanocrystal growth and to obtain new morphologies that can provide new and exciting properties.

A recent example is the use of chiral co-surfactants to induce supramolecular interactions with surfactant molecules, resulting in chiral helices that can wrap around gold nanocrystals and template a seeded growth into chiral features. The resulting chiral nanoparticle colloids display both morphological and optical handedness, which can be tuned through the visible and the near IR. The combination of plasmonic response of metal nanocrystals and chiral morphology opens up plenty of possibilities for new applications of these amazing materials.



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La presenza della S. V. sarà molto gradita.

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