

SYNTHESIS, APPLICATIONS AND PERSPECTIVES OF COMPLEX NANOCRYSTAL STRUCTURES

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Research on colloidal nanocrystals has moved from the synthesis of simple structures, such as spherical nanoparticles, to more elaborate shapes such as rods,¹⁻³ stars, discs, branched nanocrystals^{1,4} and recently to nanoparticles based on inorganic sections interconnected without the need of organic linkers.⁵⁻⁸ Nanocrystal heterostructures represent a convenient approach to the development of nanoscale building blocks, as they group inorganic sections with different functionalities in the same particle. The present talk will give an overview of the synthetic strategies to complex nanocrystals and will highlight their structural properties, as well as the applications envisaged.

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