

Manipulating Light with Nanoscale Architectures: new frontiers from energy to diagnostics

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Since the ancient myth of Prometheus who stole fire from mount Olympus to the first streets lit by electric bulbs, the ability to master light represents one of the most archetypal incarnations of the concepts of progress and modernity. Today, thanks to nanoscience and nanotechnology, humanity has unprecedented means of manipulating electromagnetic radiation via chemically synthesized nanostructures that are already rapidly becoming the building blocks of new light-based technologies in the most diverse fields, from energy to communications. From security to nanomedicine. In this talk, I will take you on a journey through some of the most representative results obtained by my research group at the Department of Materials Science of the University of Milano-Bicocca using engineered semiconductor nanocrystals, from the lab to the industry.



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