



Academic Lecture



State Key Laboratory
of Chemical Resource Engineering

Colloidal Nanoparticles: Design and Applications

报告人: Antonios G. Kanaras

(University of Southampton, UK)

时间: 2017-08-28 (周一) 下午 14:30-15:30

地点: 无机楼107会议室



报告简介:

There is an enormous progress in the development of highly sophisticated nanoparticle systems designed to perform multiple tasks in complex environments such as active layers of photovoltaic cells or complex biological environments. The properties of nanoparticles can be customized according to the choice of the chemical composition of the nanoparticle core and the nature of nanoparticle surface chemistry. While an organic nanoparticle core can be sensitive in specific external stimuli such as pH, an inorganic core can provide nanoparticles with intrinsic optoelectronic, magnetic and mechanical properties. Moreover, the choice of the ligands to coat the nanoparticle provides reactivity, targeted delivery and robustness in complex media. In this presentation I will discuss recent progress in our group concerning the design of nanoparticles and their utilization to facilitate sensing, drug delivery and accurate manipulation. The main part of my talk will focus on the study of epithelial to mesenchymal transition and the selective sensing and drug delivery using DNA-coated gold nanoparticles as well as on the activation and inhibition of angiogenesis employing peptide coated nanoparticles.¹⁻⁴

报告人简介:

Antonios Kanaras received his diploma in Chemistry from the University of Crete, Greece in 1996. After a Master's degree in Bioinorganic Chemistry from the University of Ioannina, Greece, he received a Ph.D. in Chemistry from the University of Liverpool in 2004 under the supervision of Prof. Mathias Brust. Then He worked with Prof. Paul Alivisatos as a postdoctoral scientist at the University of California, Berkeley until 2006. He then re-joined Mathias Brust group as a Research Associate working on the bioconjugation and biological applications of gold nanoparticles. In October 2007 he became a lecturer in Physics and Astronomy, University of Southampton and in March 2012 he was promoted to Senior Lecturer. Since October 2014, Antonios is an Associate Professor.

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