

Anisotropic Nanostructures: Synthetic Challenges, Assembly, and Biomedical Applications

A novel approach that uses ambient fluorescent light to convert small silver nanospheres (6-8 nm) into large, triangular silver nanoprisms will be discussed. By varying the excitation wavelengths of light, one can tune the average edge length of the final nanostructures and their resultant optical properties. Current studies are focused on understanding the mechanism by which these novel nanostructures form, as well as incorporating them into a variety of biodection and sensing applications.

In addition, recent results including novel hybrid inorganic/organic nanorod structures will be addressed. These structures spontaneously assemble into sheets, tubes, and mushroom-shaped aggregates, depending upon rod composition and length. Structure, properties, and potential applications will be discussed.



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Technical Talk

Tuesday, September 20, 2005

10:00 a.m. – 11:30 a.m.

Rotunda Auditorium

Energy, Coast & Environment Building