University of Texas at San Antonio

Department of Physics & Astronomy

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The University of Texas at San Antonio

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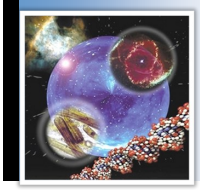
3:00 p.m.-4:00 p.m.

BB 3.04.08

Nanomaterials in Biodetection and Drug Delivery

Nanoparticles provide unique physical and optical properties to serve as building blocks for a wide-ranging applications in nanophotonics and nanomedicine. Particularly, the small size comparable to biological molecules, intense photophysical properties, and high efficiency of heat conversion from light absorption have made gold nanoparticle a hugely popular nanomaterial for biomedical diagnostic (e.g. bioanalysis, nanophotonics) and therapeutic (e.g. drug delivery, hyperthermia) applications. In this talk, examples of innovative applications in label-free plasmonic biosensor development with high sensitivity and specificity will be discussed. The applications of gold nanorods on drug delivery and gene therapy will also be covered.



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