



BILKENT UNIVERSITY

unam - INSTITUTE of MATERIALS SCIENCE & NANOTECHNOLOGY

FACULTY OF SCIENCE

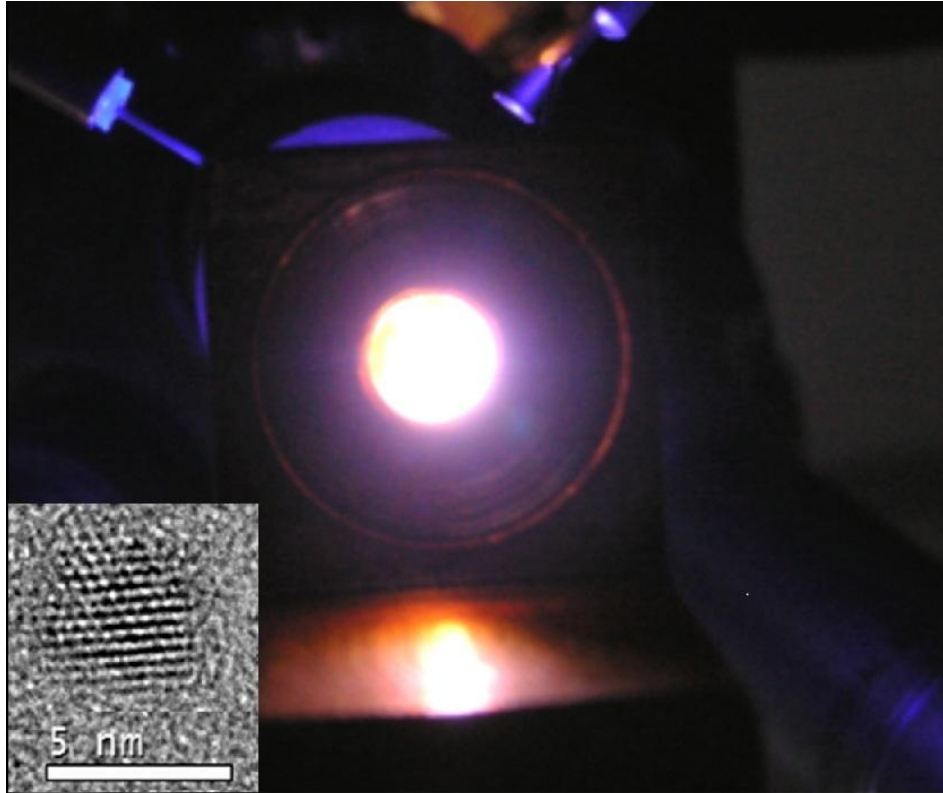
**MATERIALS SCIENCE and NANOTECHNOLOGY
GRADUATE PROGRAM SEMINAR**

**“Semiconductor Nanocrystal Optoelectronics
for LED Lighting and Photovoltaic Light Harvesting”**

Assoc. Prof. Hilmi Volkan Demir

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UNAM – Institute of Materials Science and Nanotechnology*

Semiconductor colloidal nanocrystal quantum dots enable light generation and light harvesting at extended spectral ranges using both radiative and nonradiative energy transfer. In this talk, as emerging technologies enabled by nanophotonics, we will present our recent research results on light-emitting diodes (LEDs) integrated with quantum dot nanophosphors including those enhanced with nonradiative energy transfer for energy efficiency, and photovoltaic (PV) nanocrystal scintillators hybridized on solar cells for spectral enhancement as well as light harvesting based on nonradiative energy transfer.



Date : April 8, 2011 (Friday)

Time : 15:40

Place : Faculty of Science Building, A Block, Seminar Room (SA 240)

Tea will be served after the seminar