



Department of Physics

Physics Research Seminar
Friday, November 30, 2012
10:15 – 11:15 AM – 135 Oelman Hall

Femtosecond laser-assisted microstructuring of silicon for novel detector, sensing, and display technologies

By

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Shining intense, ultrashort laser pulses on the surface of a crystalline silicon wafer drastically changes the optical, material and electronic properties of the wafer. The resulting textured surface is highly absorbing and looks black to the eye. The properties of this 'black silicon' make it useful for a wide range of commercial devices. In particular, we have been able to fabricate highly-sensitive PIN photodetectors using this material. The sensitivity extends to wavelengths of 1600 nm making them particularly useful for applications in communications and remote sensing.

Light refreshments will be provided.

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