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## Novel Manufacturing Principle for Fabrication of Advanced Composite Materials

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Distinguished Professor of Mechanical Engineering, College of Engineering, San Diego State University

**DATE:** Tuesday, November 27, 2007

**TIME:** 6:00 PM Social Hour with Complimentary Light  
Buffet

7:00 PM Lecture

Sponsored by Air Products & Chemicals

**PLACE:** Hewlett-Packard Ink Division  
Main Site Cafeteria  
16399 West Bernardo Dr., San Diego, 92127

**DIRECTIONS:** I-15 North: Exit at Bernardo Center Dr., turn left at exit, go up to top of hill. Turn right onto W. Bernardo Dr., pass two traffic lights (past Via Frontera) to main gate on right.  
I-15 South: Exit at Rancho Bernardo Rd., turn right. At intersection turn left onto W. Bernardo Dr. Drive a couple of miles on W. Bernardo Dr. going up, over a slight hill. Main gate entrance is on left.

There are several employee entrances - you need to enter the main gate with the 16399 address. Visitor parking is to the right, five-feet past the guard shack. The cafeteria is the one story building behind the palm trees.

**RESERVATION:** By Tuesday November 20, 2007  
Voice mail: 619 687-5570; email: jkp135@att.net



#### About the Speaker:

Dr. Eugene Olevsky is a Distinguished Professor of Mechanical Engineering. He has more than 20 years of professional experience in mechanical and materials engineering. More than 180 papers and about 100 invited lectures and scientific presentations have resulted from his research activities which encompass various scientific areas including materials science and mechanics applied to processing of powders and porous materials; metal, ceramic, glass, and polymer composites, including nano-materials. Prof. Olevsky is the Director of the SDSU-UCSD Joint Doctoral Program in Engineering Sciences, the Director of the SDSU Powder Technology Laboratory ([www.ptl.sdsu.edu](http://www.ptl.sdsu.edu)), an Associated Director of the SDSU Computational Sciences Center, and an Associate Director of San Diego Center for Materials Research. Prof. Olevsky's research group current activities include the development of advanced materials for solid-oxide fuel cells, thermal management of electronic circuitry, hydrogen storage, and solar cells.

#### About the Lecture:

A novel technique for the fabrication of complex shape composite materials with functionally distributed properties will be presented. The technique is based on the electrophoretic deposition of powders which allows continuous manufacturing of three-dimensional objects - particle-by-particle, layer-by-layer. The developed technological approach enables the net-shape production of functionally-graded components which have potential applications in thermal management of electronic circuitry, bio-implants' manufacturing, fabrication of bulk nano-structured materials, etc.