

UNIVERSITY OF TEXAS AT DALLAS - DEPARTMENT OF PHYSICS

PHYSICS COLLOQUIUM

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Wednesday, October 26, 2005; 4:00-5:00 PM
Kusch Auditorium, FN 2.102

Materials and Processes for Flexible Electronics

Professor Bruce Gnade

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High speed, high performance computation will continue to be dominated by silicon-based microelectronics for the foreseeable future. However, there are many applications that would benefit from the development of large area, distributed electronic systems, especially if the systems were rugged, flexible, and inexpensive per square foot, even if individual device performance was relatively low. I will present results on substrates, materials and devices that are compatible with low temperature, flexible substrates, with specific applications for electronic textiles and flexible displays. Examples of woven organic light emitting structures will be presented. This work is supported in part by the U.S. Army Soldier and Biological Chemical Command, Soldier Systems Center, DARPA, Raytheon and Texas Instruments.

About the speaker: Dr. Gnade is a Professor of Electrical Engineering and Chemistry at UTD. He received his BA in Chemistry from St. Louis University and his Ph.D. in Nuclear Chemistry from the Georgia Institute of Technology. He managed several research and technology groups during his 15 years at Texas Instruments including Si Materials and Processing, field emission display advanced technology, and Advanced DRAM Materials. From 1996-1999 he was on a temporary assignment at the Defense Advanced Research Projects Agency (DARPA) as a program manager. Prior to joining UTD he was at the University of North Texas as Chair of the Materials Science Department. He has (co-)authored about 100 papers and 68 U.S. patents.