

# **Organic Electronics**

#### DISTINGUISHED SPEAKERS

Dr. Campbell Scott, IBM Almaden Research Center
Professor Peter Peumans, Stanford University
Professor Zhenan Bao, Stanford University
Dr. Robert Jan Visser, Chief Technology Officer, Vitex Systems Inc.

#### **MODERATOR & EVENT CHAIR**

Anthony Waitz (Quantum Insight)

#### **VENUE**

Frances C. Arrillaga Alumni Center, Stanford University Apr 22, 2005 6:00-9:00 pm

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#### **AGENDA**

6:00 – 6:50 pm	Registration, Refreshments and Networking
7:00 – 7:05 pm	Introduction  Anthony Waitz, Event Moderator and Chair
7:05 – 8:30 pm	Speaker presentations
8:30 – 9:00 pm	Session close

# **ABSTRACT**

Imagine next generation electronic devices that are printed onto flexible substrates like plastic. This is the promise of the emerging field of flexible electronics where the active materials are deposited in ultra-thin layers onto non-traditional substrates. This new technology movement is significantly enabled by the use of organic materials. The success of OLED's (organic light emitting diodes) has opened the way for consideration of organic materials in many new applications. Organic electronics on flexible substrates promises to be disruptive to a number of large markets, such as electronics, displays, and solar energy. Because of the size of the opportunity, large corporations as well as new technology startups are pursuing the creation of low cost and high performance organic electronic and optoelectronic devices.

## SPEAKER BIOS

# Dr. Campbell Scott Research Staff Member, IBM Almaden Research Center

J. Campbell Scott received his BSc in physics from St. Andrews University in Scotland and his PhD from the University of Pennsylvania. He was an Assistant Professor of Physics at Cornell University before joining the IBM San Jose Research Laboratory (now the Almaden Research Center) as a Research Staff Member. He has been manager of R&D groups in electrophotographic materials, display materials and processes, organic electronics and, currently, molecular electronics. His current research program is directed at the development of a non-volatile solid-state memory, and at the fabrication and evaluation of electronic devices at the molecular scale. He has published more than 160 articles and holds 12 patents. Dr. Scott is a Fellow of the American Physical Society and a member of the Materials Research Society.

# Professor Peter Peumans Assistant Professor, Electrical Engineering and Robert N. Noyce Faculty Scholar, Stanford University

Prof. Peter Peumans (Electrical Engineering, Stanford University) is an expert in organic device modeling and characterization. He has developed several efficient solar cell device architectures and has contributed to today sunderstanding of the mechanisms that play a role in organic solar cells. Dr. Peumans has also contributed to the development of vapor phase deposition techniques that lend themselves to reel-to-reel processing of organic and organic/inorganic nanocomposite solar cells. He joined Stanford in January 2004 after completing his Ph.D at Princeton University, and has efforts in organic photovoltaics, organic electronics and biomolecular electronics. He is a recipient of an NSF CAREER award.

# **Professor Zhenan Bao**Associate Professor of Chemical Engineering, Stanford University

Professor Bao received her Ph.D. degree in chemistry from The University of Chicago in 1995 and joined the Materials Research Department of Bell Labs, Lucent Technologies. She became a Distinguished Member of Technical Staff in 2001. She joined the faculty of the Stanford Chemical Engineering Department in 2004. In addition to her more than 80 refereed publications, she has filed close to 50 US patent applications with 19 of them awarded. She currently serves as a member of Executive Committee Member and Program Committee for the Polymer Materials Science and Engineering Divisions of the American Chemical Society. She is on the international advisory board for the journal of Materials Today. She is a recipient of the American Chemical Society Team Innovation Award 2001, R&D 100 Award, and R&D Magazine's Editors Choice of the "Best of the Best" new technology for 2001. She has been selected in 2002 by the American Chemical Society Women Chemists Committee as one of the twelve "Outstanding Young Woman Scientist who is expected to make a substantial impact in chemistry during this century." She is also selected by MIT Technology Review magazine in 2003 as one of the top 100 young innovators for this century.

# Dr. Robert Jan Visser Chief Technology Officer, Vitex Systems Inc.

As CTO, Dr. Robert Jan Visser is responsible for driving Vitex's research and development activities. Prior to joining the company in 2002, Visser served as innovation manager and CTO for Philips Components' PolyLED business unit. In this role, he was responsible for developing the electronics, products and manufacturing processes required to commercialize Philips' PolyLED technology. Prior to this, Visser was responsible for overseeing Philips research projects relating to plastic electronics, liquid crystalline polymers (LCD, displays and optical films). He holds a Ph.D. in physical chemistry, and a master's degree in theoretical chemistry and physics from the University of Leiden, Netherlands

# MIT • Stanford • UC Berkeley Nanotechnology Forum

#### **Introduction and Mission Statement**

The Nanotechnology Forum is the largest nanotechnology focused organization in the Bay Area. It is dedicated to promoting the burgeoning field of nanotechnology by connecting ideas, technology and people. It is a unique organization, run entirely by unpaid volunteers under the umbrella of the alumni associations of the three universities.

The Nanotechnology Forum primarily serves the alumni communities of MIT, Stanford and the University of California, Berkeley, but events are open to anyone interested or active in the field of nanotechnology. We provide opportunities for industry experts, researchers, entrepreneurs, venture capitalists, private investors, technologists and the interested public to discuss, understand and evaluate the state-of-the art in nanotechnology.

Our events feature leading researchers, business leaders, investors, policy makers and entrepreneurs active or interested in the field of nanotechnology.

## **Steering Committee**

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#### Quantum Insight

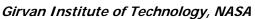
Quantum Insight is a pioneering business strategy services firm in the field of emerging new materials and nanotechnology. Our customers include Fortune 500 companies as well as venture and corporate funds. We provide strategic business and market development services to companies active or interested in the fields of emerging new materials and nanotechnology. We also provide investment research and targeted deal sourcing services to venture and corporate funds seeking to build new technology startups.



#### Burns Doane

We at Burns Doane are proud to say that among our 100 plus scientists and attorneys from all the major scientific disciplines we have some of the pioneers in the field of nanotechnology. Our

attorneys have developed patent portfolios around some of the fundamental building blocks of this emerging area, including carbon nanotubes, photo-voltaics, MEMS, NEMS, and fuel cells. Our attorneys have founded some of the most successful nanotechnology networking organizations across the country and are well positioned to introduce clients to venture capitalists, industry leaders, and others who can help establish successful businesses.



The Girvan Institute of Technology is a non-profit corporation focused on research, technology development, technology transfer, and technology commercialization at the NASA Research Park, Moffett Field, California. Girvan's primary mission is to accelerate the convergence of commercial markets and government-developed technologies, and to spur the use of innovative commercial technology for NASA missions. Girvan identifies commercially developed technologies of interest to NASA, and assists small companies in accessing technology developed by US government agencies for eventual application in commercial markets.

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