

# “ATOMICALLY PRECISE MANUFACTURING”

**9 December 2008 (Tues)**

• **11.30 am – 1.00 pm** • **IMRE, SR1** •

Institute of Materials Research and Engineering, A\*STAR (Agency for Science, Technology and Research)  
3 Research Link, Singapore 117602 • [www.imre.a-star.edu.sg](http://www.imre.a-star.edu.sg)



**Jim Von Ehr**  
Chairman & Founder  
Zyvex Labs, LLC



**Objective:**

SingNano provides the network for the Singapore Nanotech community.

**Who Should Attend:**

Scientists, Engineers and Industrialists who are in nanotechnology and active players in Nanotech R&D and commercialization.

**ABOUT ZYVEX LABS, LLC ([www.zyvex.com](http://www.zyvex.com)) AND TALK ABSTRACT**

Zyvex is the first *molecular nanotechnology* company, with a vision of developing adaptable, affordable, and molecularly precise manufacturing. Zyvex Founder Jim VON EHR will discuss Zyvex's progress towards this ambitious goal of creating "digital matter." Highly engineered nanomanufacturing systems built with atomic precision will revolutionize how we make products ranging from construction materials to computers to medicine.

In 2008, Zyvex began work on a significant program to develop silicon-based Atomically Precise Manufacturing. This \$16M program will be led by Zyvex, and is funded by DARPA, the State of Texas, and Von Ehr. The group doing this work is known as the Atomically Precise Manufacturing Consortium (APMC), and includes commercial companies Zyvex Labs, General Dynamics, Integrated Circuit Scanning Probe Instruments (ICSPI), and Vought Aircraft. University partners are the University of Central Florida, University of Illinois at Urbana-Champaign, University of New South Wales, University of North Texas, University of Texas at Austin, and University of Texas at Dallas. Government partners are the National Institute of Standards and Technology (NIST), and the North Texas Regional Center for Commercialization and Innovation (NTxRCIC).

An additional \$3M+ investment is planned in Singapore, bringing together Zyvex Asia and IMRE in a research collaboration supporting the other partners in the U.S. based APMC.

**In this talk, Jim VON EHR will discuss the work now underway to develop the tools to build atomically precise 3D structures.**

**ABOUT THE SPEAKER**

**Jim VON EHR: Chairman: Zyvex Labs, LLC (USA)**

VON HER is Founder and Chairman of Zyvex Performance Materials, Zyvex Instruments, Zyvex Labs, and Zyvex Asia. Recognized as a leader within the nanotechnology industry, he founded the Texas Nanotechnology Initiative and the Feynman Grand Prize in Nanotechnology. His significant gifts established the University of Texas at Dallas (UTD) NanoTech Institute, the James VON HER Distinguished Chair of Science and Technology at UTD, held by the late Nobel Laureate Alan MacDiarmid, and the James VON HER Scholars program at Michigan State University (MSU).

VON HER was named an Ernst & Young Entrepreneur of the Year in June 2003. He has also been named Distinguished Alumni of MSU and UTD, and received MSU's Claud Erickson Award, their highest engineering honor. In 2004 he received the Richardson Chamber of Commerce's Economic Development Leadership Award, and in 2007, was named Richardson's Citizen of the Year.

**\*\* ADMISSION IS FREE \*\***

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