



## **AWARDING THE BEST IN SMALL TECH**

The University of Toledo's Zerovalent Iron Nanoparticles Process has been named a winner in the third annual Nanotech Briefs® Nano 50™ Awards in the Technology category. Presented by Nanotech Briefs magazine - the monthly digital publication from the publishers of NASA Tech Briefs - the Nano 50 recognizes the top 50 technologies, products, and innovators that have significantly impacted, or are expected to impact, the state of the art in nanotechnology. The winners of the Nano 50 awards are the "best of the best" - the innovative people and designs that will move nanotechnology to key mainstream markets.

Nano 50 nominations were entered via an online submission form, and were judged by a panel of nanotechnology and MEMS experts. The technologies, products, and innovators receiving the 50 highest scores were named Nano 50 award winners.

*Nanotech Briefs* congratulates all of the Nano 50 winners. Join us as we celebrate these innovators, and the technologies and products they've created, at the Nano 50 Awards Dinner at the *NASA Tech Briefs* National Nano Engineering Conference in Boston, November 14 and 15, 2007. Visit [www.techbriefs.com/nano](http://www.techbriefs.com/nano) for more information.

*Congratulations to the third annual Nano 50:*

### **Innovators**

An individual recognized as a leader or pioneer in a specific area of nanotechnology, with a significant background of accomplishments in advancing the state of the art in nanotechnology.

#### **Pulickel M. Ajayan**

Rensselaer Polytechnic Institute  
Troy, NY

#### **Shigeru Aoyama**

Omron Corp.  
Japan

#### **Olgica Bakajin**

Lawrence Livermore National Laboratory  
Livermore, CA

#### **Zhenan Bao**

Stanford University  
Stanford, CA

#### **Stephen Y. Chou**

Princeton University  
Princeton, NJ

**Ken Dean**

Motorola Labs  
Tempe, AZ

**Omid Farokhzad**

Harvard Medical School/Brigham and Women's Hospital  
Boston, MA

**Nicholas Leventis**

University of Missouri at Rolla  
Rolla, MO

**Charles R. Martin**

University of Florida  
Gainesville, FL

**Gilles Picard**

Nanometrix  
Canada

**Micheal T. Postek**

National Institute of Standards & Technology (NIST)  
Gaithersburg, MD

**Eric Snow**

Naval Research Laboratory  
Washington, DC

**Francesco Stellacci**

Massachusetts Institute of Technology  
Cambridge, MA

**Thomas Thundat**

Oak Ridge National Laboratory  
Oak Ridge, TN

**Ming Zheng**

E.I. DuPont de Nemours & Co.  
Wilmington, DE

**Technologies**

Technology breakthroughs that have, or are expected to have, a significant impact in one or more application areas.

**Nanoparticle Flux Pinning in Superconductors**

Air Force Research Laboratory  
Wright-Patterson Air Force Base, OH

**Nanophotonic Integrated Circuit from Dendrimer**

Applied Research and Photonics, Inc.  
Harrisburg, PA

**Controlled Architecture Polymers**

Arkema  
France

**Nanoantenna Arrays**

Idaho National Laboratory  
Idaho Falls, ID

**Nanostructured Device Manufacturing Process**  
Idaho National Laboratory  
Idaho Falls, ID

**Single Quantum Dot Nanowire LEDs**  
Kavli Institute of Nanoscience/Philips Research Labs  
The Netherlands

**Fabrication of Nanoporous Metal Materials**  
Lawrence Livermore National Laboratory  
Livermore, CA

**Pathogen-Sensing Nanosensors**  
Lawrence Livermore National Laboratory  
Livermore, CA

**Microfluidizer High-Pressure Fluids Processor**  
Microfluidics Corp.  
Newton, MA

**Modulated Power Spectrum Method of Zeta Potential Determination**  
Microtrac, Inc.  
Montgomeryville, PA

**Method for Manufacturing High-Quality Carbon Nanotubes**  
NASA Goddard Space Flight Center  
Greenbelt, MD

**Size-Controlled Metallic Nanoshells and Nanoparticles**  
NASA Langley Research Center  
Hampton, VA

**Scatterfield Optical Microscopy**  
National Institute of Standards & Technology (NIST)  
Gaithersburg, MD

**Single Nanoparticle Optics**  
Old Dominion University  
Norfolk, VA

**Network Nanostructured Polymer System**  
Polymate Ltd.-Israeli Research Center  
Israel

**Common Platform™ Technology**  
Samsung, IBM, Chartered Semiconductor  
San Jose, CA

**Low-Temperature Nanomaterials for Fuel Cells**  
University of California, Davis  
Davis, CA

**Nanoengineered Superthermites for Shock Wave and Energy Generation**  
University of Missouri-Columbia  
Columbia, MO

**Fuel-Powered Artificial Muscles**  
University of Texas at Dallas  
Richardson, TX

**Zerivalent Iron Nanoparticles Process**  
University of Toledo  
Toledo, OH

**Polymer Foam Nanocomposites**  
University of Virginia  
Hampton, VA

**Printed Electronics**  
Xerox Corp.  
Canada

**xGnP-Exfoliated Graphite Nanoplatelets**  
XG Sciences, Inc.  
East Lansing, MI

**Products**

A product that incorporates nanotechnology in its design and/or operation, with significant current or near-term commercial applications.

**Ultra-Strong, Stiff, and Lightweight CNT Fiber**  
CNT Technologies, Inc.  
Seattle, WA

**Dual Mode Fluorescence (DMF) Module**  
CytoViva, Inc.  
Auburn, AL

**RoboMate™ Nanopositioning System**  
Discovery Technology International  
Sarasota, FL

**Starch Nanospheres**  
EcoSynthetix  
Lansing, MI

**NANOSPIDER AntimicrobeWeb™**  
ELMARCO s.r.o.  
Czech Republic

**Quanta 3D FEG**  
FEI Co.  
Hillsboro, OR

**nanoECR™ System**  
Hysitron, Inc.  
Minneapolis, MN

**Nanomaterials for Water Cleanup**  
MetaMateria Partners/NanoDynamics  
Columbus, OH

**Forte™ Nanocomposites**  
Noble Polymers  
Grand Rapids MI

**VivaGel™**  
Starpharma Holdings Ltd.  
Australia

**Emulsion Aggregations (EA) Toner Technology**

Xerox Corp.

Canada

**Integrated Circuit SEM Probing Product Line**

Zyvex Instruments, LLC

Richardson, TX