

Email not displaying correctly? [View it in your browser.](#)



Volume 5 Issue 5 - May 2012

Nanomanufacturing Summit 2012: Highlighting Nanotechnology Innovation, Commercialization, and Manufacturing



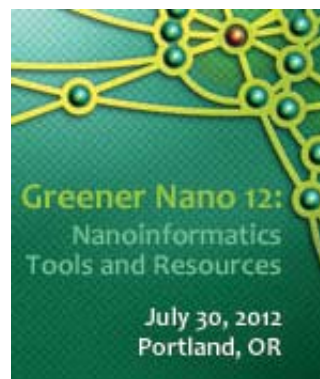
A host of cross-cutting federal, state, and regional initiatives have recently been announced with targeted objectives that include accelerating the innovation cycle for U.S. manufacturing and enhancing the connections between academic research and

industry driven commercialization. In establishing such public-private partnerships, a key goal is to provide the platform for industry to leap the "Valley of Death", the proverbial chasm that lies between innovations within small businesses and academia, and commercial scale-up and manufacturing. Prime examples of these initiatives include the Advanced Manufacturing Partnership (AMP), announced last year by the Obama administration, and the National Network for Manufacturing Innovation (NNMI) that may include up to 15 Institutes within the U.S. targeting different sectors of manufacturing innovation. Staying on course with this model, the administration this week announced a \$26 million multi-agency Advanced Manufacturing Jobs and Innovation Accelerator Challenge to foster innovation-fueled job creation through public-private partnerships. These coordinated investments will help catalyze and leverage private capital, build an entrepreneurial ecosystem, and promote cluster-based development in regions across the U.S., further leveraging, for example, the many successful regional, state, and local initiatives and frameworks that have been developed.

[More....](#)



Gordon Research Conference
Nanostructure Fabrication
University of New England
Biddeford, ME
July 15-20, 2012



Job Opportunities

[PhD thesis position in semiconducting transparent oxide thin films](#)

Centre de Recherche Public - Gabriel Lippmann

[Postdoctoral position for nanomaterials related to energy](#)

Myongi University

[Sr. Process Engineer \(Wafer Prep\)](#)

Cree

[Manufacturing Engineer](#)

Adecco

Upcoming Events

Regards,
 Jeff Morse, Managing Director,
 National Nanomanufacturing Network

Learn More about the



Integrated Nanomanufacturing and Nanoinformatics for Scale-up Research

Qiang Huang, Ph.D., University of Southern California



As history often offers hints for the future, the experience in traditional manufacturing often helps us to identify the path to commercial scale production: integrated nanomanufacturing and nanoinformatics (INN).

In the past, high-volume production often required systematic knowledge regarding robust product/process design, synthesis or processing techniques, metrology and inspection, and process modeling and control. The successful transformation of quality and productivity in traditional manufacturing suggests the need of integrating engineering knowledge with advanced statistics in each stage of product life cycle.

However, unlike traditional manufacturing, nanomanufacturing involves product characteristics and process variables at multiple length scales. The process and product variations are therefore across multiple scales as well. The multiscale product/process variation (MPV) features the multiscale and multiphenomenon challenge in nanomanufacturing. Control of MPVs generally demands more information than variation control at a single scale. But there is a lack of measurement data, observation during processing, and physical knowledge at fine scales.

[More...](#)

Greener Nano 2012: Nanoinformatics Tools and Resources Workshop - Call for Experts and Invitation to Participate

June 4-5, 2012

[Nanofibers 2012](#)

June 6-8, 2012

[Advanced Materials 2012](#)

June 24, 2012

[Nano-Sized/Nano-Structured Materials: Fundamentals & Applications](#)

July 9-11, 2012

[Seeing at the Nanoscale 2012](#)

[View Full Calendar](#)

Upcoming Calls

[Nanomaterials: Application & Properties 2012](#)

Submissions accepted until
 June 15, 2012

[ANM 2012](#)

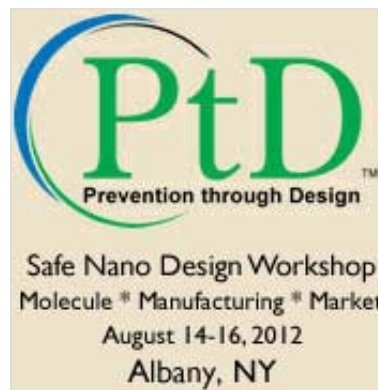
Submissions accepted until:
 June 15, 2012

[MRS Symposium WW: Roll-to-Roll Processing of Electronics and Advanced Functionalities](#)

Submissions accepted until:
 June 19, 2012

[View All Calls](#)

Advertisements



Recently Published
 From Our Affiliates



The quantity of information on nanomaterial properties and behavior continues to grow exponentially. Without a concerted effort to organize and mine disparate information coming out of current research efforts, the value and effective use of this information will be limited at best. At worst, erroneous conclusions will be drawn and data will not be translated to knowledge. Nanoinformatics inherently supports a community-based approach to filter the noise and enhance the value of global information in nanoscience and nanotechnology.

Much progress has been made through grassroots efforts in nanoinformatics resulting in a multitude of resources and tools for nanoscience researchers. At this point, it is important to critically evaluate and refine nanoinformatics applications in order to best inform the science and support the future of predictive nanotechnology.

[More....](#)

Obama Administration Launches \$26 Million Multi-agency Competition to Strengthen Advanced Manufacturing Clusters Across the Nation

Fourteen federal agencies collaborate to enhance global competitiveness of U.S. manufacturers and create jobs



The Obama Administration today announced a \$26 million multi-agency Advanced Manufacturing Jobs and Innovation Accelerator Challenge to foster innovation-fueled job creation through public-

Cell Alignment using Patterned Biocompatible Gold Nanoparticle Templates
[Small 8\(8\):1209-1213](#)

Designing Electrical Contacts to MoS₂ Monolayers: A Computational Study
[Physical Review Letters 108\(15\)](#)

Tuning Electron Transport in Graphene-Based Field-Effect Devices using Block Copolymers
[Small 8\(7\):1073-1080](#)

Tunable oscillations in the Purkinje neuron
[Physical Review E 85\(4\)](#)

Coarse-Grained Potential Model for Structural Prediction of Confined Water
[Journal of Chemical Theory and Computation 8\(5\):1828-1840](#)

Affiliated Centers



private partnerships. These coordinated investments will help catalyze and leverage private capital, build an entrepreneurial ecosystem, and promote cluster-based development in regions across the United States.

This is the third round of the Jobs Accelerator competition funded by the U.S. Department of Commerce's Economic Development Administration and National Institute of Standards and Technology; the U.S. Department of Energy; the U.S. Department of Labor's Employment and Training Administration; the Small Business Administration; and the National Science Foundation (NSF).

[More....](#)

[Read more on](#) *InterNano*

[Subscribe](#) / [Unsubscribe](#) from this list.

Our mailing address is:
The National Nanomanufacturing Network
374 Lederle Graduate Research Center
710 N. Pleasant Street
University of Massachusetts
Amherst, MA 01003

Our email address is:
nnn@nanomanufacturing.org

Our phone number is:
(413) 577-0570

Copyright (C) 2012 The National Nanomanufacturing Network All rights reserved.

Supported by the National Science Foundation under Grant No. [CMMI-1025020](#).

