National Nanomanufacturing Network Newsletter

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The NNN Newsletter

NNN Partners with NanoBusiness and Commercialization Association for Nanomanufacturing Summit 2011

As the focus on fundamental science and knowledge over the past decade has now begun to produce dividends demonstrated by the number of nanotechnology-enabled products and market growth, nanomanufacturing remains the essential bridge between the discoveries of the nanosciences and the commercialization of nanotechnologies. Nanomanufacturing, defined as the controllable manipulation of materials structures, components, devices, and systems at the nanoscale (0.1 to 100 nanometers) in one, two, and three dimensions for large-scale reproducibility of value-added components and products, seeks to accelerate the proliferation of nanotechnology enabled products through the development of new process methodologies, tools, materials, and systems that are becoming established within the global manufacturing base. In this manner, many new products, markets, and processes will benefit from value-added commercial products enabled by the collective performance of their nanoscale building blocks. As the focus on fundamental science and knowledge over the past decade has now begun to produce dividends demonstrated by the number of nanotechnology-enabled products and market growth, nanomanufacturing remains the essential bridge between the discoveries of the nanosciences and the commercialization of nanotechnologies. Nanomanufacturing, defined as the controllable manipulation of materials structures, components, devices, and systems at

Job Opportunities

CHM Postdoctoral Research Associate Position at NIST CNST

MEMS Operations Director at Research Foundation of SUNY

Research Scientist - Component Lighting at Cree

Upcoming Events

June 26 - July 1, 2011
NanoFormulation2011

June 29 - 30, 2011

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Regards,
Jeff Morse, Managing Director,
National Nanomanufacturing Network

Learn More about the National Nanomanufacturing Network

NanoBusiness Alliance Interview - Anil R. Diwan, Ph.D.

In this month's interview, we talk to Anil R. Diwan, Ph.D., President and Chairman of NanoViricides. Dr. Diwan has extensive product discovery and development experience while raising financing from collaborations, SBIR grants, and other revenues. He has extensive experience in a number of bio-pharmaceutical, biosciences, and biomedical fields and technologies that leads to his novel, integrative approach in solving problems with low costs, high innovation, and world-leading feature sets. Dr. Diwan is the inventor, developer, and principal investor of TheraCour and NanoViricides technologies. The nanomaterials based on these technologies form the basis of Nanoviricides drugs. More...

Hybrid Three-Dimensional Single-Walled Carbon Nanotube Architectures

Pharmaceutical Nanotechnology: Applications & Commercialisation

July 8 - 11, 2011
2nd International Conference on Material and Manufacturing Technology

July 8 - 11, 2011
The International Conference on Nanoscience, Engineering, and Advanced Computing

July 9 - 12, 2011
Particles 2011 - Stimuli-Responsive Particles and Particle Assemblies

July 12 - 14, 2011
SEMICON West 2011

View Full Calendar

Upcoming Calls

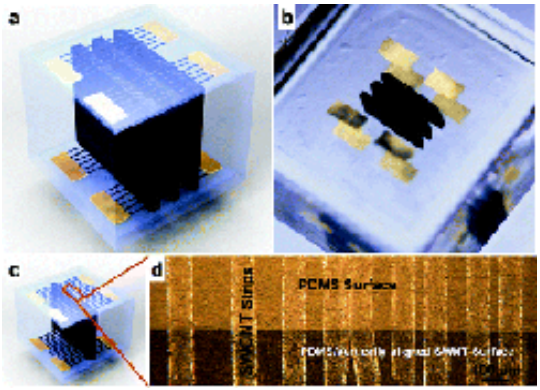
Request for Applications: Nanotechnology Subject Matter Experts to Participate in Central Asia Travel
Application deadline June 30

Nanomanufacturing Summit 2011
Submissions until July 15

Commercialization of Micro-nano Systems Conference
Submissions until July 1

NanotechItaly2011
Submissions until July 11

View All Calls



Engineering of carbon nanotubes (CNT) into controlled morphologies and architectures has progressed to the point where electrodes fabricated from CNT networks have become viable candidates for applications such as flexible electronics, solar photovoltaics, and optoelectronics. Recently, Li et. al. reported on their investigation of forming organized 2D and 3D hybrid single-walled carbon nanotube (SWCNT)-polymer architectures. This paper reports a scalable approach to forming precisely controlled architectures of 3D SWCNT networks for integration of electrical connections. Nominally the approach would be adaptable to a wide range of metal and polymer substrates and could be further scaled down to smaller line width features as well as larger areas. More....

President Obama Launches Advanced Manufacturing Partnership

Today, at Carnegie Mellon University, President Obama launched the Advanced Manufacturing Partnership (AMP), a national effort bringing together industry, universities, and the federal government to invest in the emerging technologies that will create high quality manufacturing jobs and enhance our global competitiveness. Investing in technologies, such as information technology, biotechnology, and nanotechnology, will support the creation of good jobs by helping U.S. manufacturers reduce costs, improve quality, and accelerate product development. More....

Recently Published

From Our Affiliates

A New Transcriptional Effect Level Index (TELI) for Toxicogenomics-based Toxicity Assessment
Environmental Science & Technology, 45(12):5410 - 5417

Site-Specific Attachment of Proteins onto a 3D DNA Tetrahedron through Backbone-Modified Phosphorothioate DNA
Small 7(10):1427 - 1430

Size-Selective Template-Assisted Electrophoretic Assembly of Nanoparticles for Biosensing Applications
Langmuir, 27(11):7301 - 7306

Multiplexed Detection of Nucleic Acids in a Combinatorial Screening Chip
Lab on a Chip, 11:1916 - 1923

Universal Cyclic Polymer Templates
Journal of the American Chemical Society 133(18):6906 - 6909

Affiliated Centers

CHM
Center for Hierarchical Manufacturing
University of Massachusetts Amherst

Center for High-rate Nanomanufacturing

Center for Nanoscale Chemical-Electrical-Mechanical Manufacturing Systems

SINAM
CENTER FOR SCALABLE AND INTEGRATED NANOMANUFACTURING

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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

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