National Nanomanufacturing Network Newsletter

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The NNN Newsletter

Nanomaterials, Informatics Included in Food and Drug Administration's Strategic Plan for Regulatory Science

Tasked with the core responsibility of protecting and promoting the health and safety of Americans through enhancing the availability of safe medical products and foods, the U.S. Food and Drug Administration (FDA) recently released a document titled Advancing Regulatory Science at FDA: A Strategic Plan. Central to FDA's responsibilities is advancing the public health by expediting innovations that make foods safer and medicines and medical devices safer and more effective. In this capacity, the FDA must make decisions based on the best available scientific data, using the best tools and methods available in order to ensure products meet the highest quality standards for consumers. Concurrently, the FDA seeks to foster and advance innovation in the products it regulates, further noting in the document that rapid advances in innovative science have provided new technologies to discover, manufacture, and assess novel medical products, and to improve food safety and quality. As such, the strategic plan was developed to keep pace with these innovations and incorporate new scientific advances within the regulatory process, including developing new tools, standards, and approaches to assess the safety, efficacy, quality, and performance of FDA-regulated products. More....

Regards,
Jeff Morse, Managing Director,

Job Opportunities

CHM Postdoctoral Research Associate Position at NIST CNST

Senior/Staff Nanotechnology Process Integration Engineer

Nano-material Scientist - Agilent Technologies

Upcoming Events

Aug 29 - Sep 2, 2011
International Conference on Manipulation, Manufacturing and Measurement on the Nanoscale

Sep 19 - 20, 2011

National Nanomanufacturing Network

Learn More about the National Nanomanufacturing Network

New Technique Scales Up Nanofiber Production

A new spin on an old technology will give scientists and manufacturers the ability to significantly increase their production of nanofibers, according to researchers at North Carolina State University. Collections of nanofibers, because they are porous and lightweight, are useful in applications ranging from water filtration to tissue regeneration to energy storage. Although nanofibers are relatively inexpensive to produce, the current method of production – needle electrospinning – is time-intensive. More....

An Impermeable Wrap for Future Electronics

A moisture-resistant coating that extends the lifetime and reliability of plastic electronic devices, such as organic solar cells or flexible displays, has garnered the intense interest of developers of next-generation lighting materials. By cranking out large sheets of polymers bearing electronic circuitry using roll-to-roll technology, electronics manufacturers can substantially reduce their capital and processing costs. The possibilities for low-cost flexible panel lighting inspiring, says Senthil Ramadas, co-founder and chief technology officer of Tera-Barrier Films — a company spun-out of the A*STAR Institute of Materials Research and Engineering (IMRE) in 2009. "Flexible devices can take any form — thin films of organic lighting could cover entire ceilings or wrap around pillars. More...

Superhydrophobic Tracks for Drop Transport Open Path to Low-cost Microfluidics

Center for Nanophase Materials Sciences (CNMS) User Meeting

Sep 21 - 22, 2011
Materials by Design - Workshop

Sep 25 - 29, 2011
US-EU-Africa-Asia-Pacific and Caribbean Nanotechnology Initiative (USEACANI) 2011

Sep 25 - 27, 2011
Nanomanufacturing Summit 2011

Oct 2 - 5, 2011
WAVE 2011 Conference

View Full Calendar

Upcoming Calls

SPIE Defense, Security, and Sensing 2012
Submissions until October 10

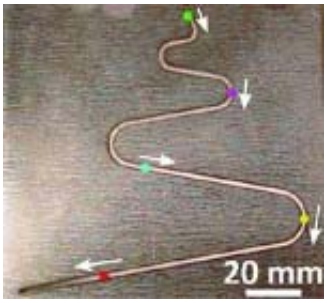
MRS Spring Meeting 2012
- submissions accepted until: November 1, 2011

SPIE Photonics Europe 2012
Submissions until November 7

View All Calls

Recently Published
From Our Affiliates

Formation of Crystalline Cadmium Selenide Nanowires
Chemistry of Materials



Researchers in Finland and Israel have now explored the feasibility of using superhydrophobicity for guided transport of water droplets in microfluidic devices. Reporting their work in a recent issue of*Advanced Materials* ("Superhydrophobic Tracks for Low-Friction, Guided Transport of Water Droplets"), they demonstrate a new, simple and general approach for transportation of water droplets based on superhydrophobic technology. Water droplets are transported at high velocity in almost totally water-repellent tracks with vertical walls. Drops move in open tracks, machined in metal or silicon wafers, using gravity or using electrostatic charge. More....

Read more on InterNano

23(14):3371-3376

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

Unusual strategies for using indium gallium nitride grown on silicon (111) for solid-state lighting
Proceedings of the National Academy of Sciences of the USA 108(25):10072-10077

Nanodiamond Therapeutic Delivery Agents Mediate Enhanced Chemoresistant Tumor Treatment
Science Translational Medicine 3(73):73ra21

Exposure assessment of nano-sized and respirable particles at different workplaces
Journal of Nanoparticle Research 13(9):4161-4172

Affiliated Centers

CHM
Center for Hierarchical Manufacturing
University of Massachusetts Amherst

Center for High-rate Nanomanufacturing

Center for Nanoscale Chemical-Electrical-Mechanical Manufacturing Systems

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