Top Deck

What the nation's (& world's) top papers, news wires and sources have been saying about nanotechnology.

Iran Tech Expo Sends Defiant Message to West
ABC News (Associated Press)
Feb. 3
Brian Murphy

"It's become part of annual celebrations of scholarship and military might. But this year, there is an added message to the West after the latest talks over Iran's nuclear program fizzled in January: Tehran's ability to make atomic fuel remains at the heart of the country's drive for home-grown technology."

New study paves way for better cancer treatment
ANI
Feb. 5

"Scientists have developed a little bomb that promises a big bang for cancer patients."

Also noted by AzoNano.

Atom-thick nano sheets have high-tech potential
Associated Press
Feb. 7
Kate Kelland

"LONDON - A novel way of splitting materials into sheets just one atom thick could lead
to new electronic and energy storage technologies, scientists said on Thursday.

An international team of researchers said they had invented a versatile way to create one atom thick 'nanosheets' from a range of layered materials, similar to the graphite used in pencils, using ultrasonic pulses and common solvents."

**Big Ambitions, Tiny Budget for Navy's Alternative Energy Researchers**
The New York Times
Feb. 7
Annie Snider (GreenWire)

"The Navy Research Laboratory's alternative energy projects - each costing less than $500,000 - are modest ventures that barely register in the Pentagon's gargantuan budget."

**Criss-crossed nanowires can compute**
Feb. 9
*Nature News*
Geoff Brumfiel

"Scientists have stitched together nanowires to create a microchip capable of basic computation."

**Risk and Opportunities of Nanotechnology**
*IEEE Spectrum Nanoclast blog*
Feb. 9
Dexter Johnson

"I have to confess to not always understanding the point of some forums or who the attended audience is supposed to be."

**Nanotech - Small Particles, Big Potential for Compliance and Litigation Risk**
*Industry Week*
Feb. 11
Jennifer Quinn-Barabanov

"Government regulators are requesting health and safety information from manufacturers of nanomaterials under various environmental laws."

*Also noted by the New Haven (CT) Independent.*

**Laser-Quick Data Transfer**
*MIT Technology Review*
Feb. 15
Katherine Bourzac
"For the first time, researchers have grown lasers from high-performance materials directly on silicon. Bringing together electrical and optical components on computer chips would speed data transfer within and between computers, but the incompatibility of the best laser materials with the silicon used to make today's chips has been a major hurdle."

**On Deck**

What Local Sources are Reporting

**NanoBusiness To Feds: Ease Up**
*New Haven (CT) Independent*
Feb. 2
Gwyneth K. Shaw

"Accepting an invitation from the new Republican U.S. House majority to help get regulators to back off industry, a nanotechnology trade group is asking a congressional committee to pressure regulators to avoid 'unnecessary public alarms.' That request came in the form of a letter ([link](#)) from the NanoBusiness Alliance, a consortium of nanotechnology companies."

**Nanotechnology could create opportunities for UNC and North Carolina, marketing key**
*The Daily Tar Heel (UNC Chapel Hill)*
Feb. 4
Harrison Okin

"Nanotechnology could open huge opportunities for UNC and the state if it is marketed effectively, Brooks Adams said Thursday at the 2010-11 Carolina Innovations Seminar."

**Possible prostate cancer treatment could be golden**
*The Clarion (Mississippi) Ledger*
Feb. 6
Gary Pettus

"Researchers at Jackson State University have created a possible treatment for prostate cancer using particles that are about 80,000 times smaller than the width of a human hair."

**New state economic development commissioner says Syracuse is no place for nanotechnology**
*Syracuse.com (The Post Standard)*
Feb. 8
Rick Moriarty
"Syracuse, N.Y. - The Syracuse area scored what appeared to be a big win in September when the state promised to invest $28 million to turn a former General Electric Co. laboratory in Salina into a nanotechnology research and development facility."

**Nanoparticles used to mop up cancers cells**  
Feb. 8  
*The Suncoast News* (Tampa Bay, FL)

"In most women diagnosed with ovarian cancer, the primary tumor can be removed and rarely leads to death. What can be deadly, however, are cells that slough off the tumor before it is removed and can spread the cancer."

**No Such Thing As ?'Nanotechnology?' Discuss**  
*New Haven (CT) Independent*  
Feb. 11  
Gwyneth K. Shaw

"What makes [Martin Philbert](#) worry about nanotechnology? In some ways, it?s the term itself."

**Nano Press**

What nano-centered publications are reporting

**Nanotechnology. It's What's For Dinner!**  
Nanotechnology Now  
Feb. 1

"Nanofoods are coming to a grocery store near you. Employing 'nanotechnology techniques or tools ? during cultivation, production, processing, or packaging of the food,' nanofoods are silently causing a revolution in our relationship to what we eat."

**Nanoscale junctionless transistor gets even smaller**  
Nanowerk  
Feb. 2

"A team of scientists at Tyndall National Institute, UCC have made the world's first junctionless transistor even smaller. The transistor is the building block of the microchip. The development of the world's first junctionless transistor by Tyndall's Professor Jean-Pierre Colinge had already sparked off huge interest amongst the leading semiconductor manufacturers around the globe when it was published in the most prestigious of research science publications, *Nature Nanotechnology*. The announcement was made as part of the programme of events taking place for Nanoweek which runs from 31st January to 4th February."
easyJet tests nanotechnology for fuel efficiency
Nanowerk
Feb. 14

"easyJet, the UK's largest airline, today announced that it is the first commercial airline to trial a revolutionary nanotechnology coating on its aircraft aimed at reducing drag and increasing fuel efficiency."

A practical approach to managing nanomaterial safety in the lab
Nanowerk
Feb. 14

"In a previous Nanowerk Spotlight from last year ('Questionable safety practices in nanotechnology labs around the world') we showed that the nanotechnology research community does not exactly appear to be at the forefront when it comes to following, not to mention setting, standards for safe practices for handling nanomaterials. One of the most surprising results was that nearly three quarters of respondents reported not having internal rules to follow regarding the handling nanomaterials - approximately half of them didn't have rules and over a quarter were not aware of any internal regulations."

Spray-on solar panels
Nanowerk
Feb. 14

"Have you seen those big, bulky, breakable photovoltaic cells that now collect the sun's rays? Well, what if solar energy could be harnessed using tiny collectors that could be spray painted on a roof, a wall or even a window?"

Other (science) issues related to nanotechnology

Tuning graphene film so it sheds water
Vanderbilt University
Feb. 1

"Windshields that shed water so effectively that they don't need wipers. Ship hulls so slippery that they glide through the water more efficiently than ordinary hulls.

These are some of the potential applications for graphene, one of the hottest new materials in the field of nanotechnology, raised by the research of James Dickerson, assistant professor of physics at Vanderbilt."
"Hydrogen is, without a doubt, the most reasonable means by which to move into an alternative energy future. It can be created by simply splitting water molecules, stores indefinitely, burns 10 times hotter than traditional natural gases, is the lightest element known making it easy to transport, and the byproducts of processing it for energy are chemically pure water and medical grade oxygen. It seems like a no-brainer. However, the greatest downfall to the hydrogen energy movement up until now has been the high cost and low efficiency of the fuel cells needed to convert the hydrogen into electrical power. That's all about to change thanks to a breakthrough in nanotechnology."

"National Geographic will turn its 3D lens to the world of the invisible, with giant-screen film 'Hidden Worlds' up next for the nature production company."

"The Food Standard Agency (FSA) said it is considering signing confidentiality agreements with food and packaging companies in a bid to persuade them to share information on nanotechnology research."

"Researchers at Case Western Reserve University have developed a little bomb that promises a big bang for cancer patients. Preliminary tests show an anti-cancer drug loosely attached to gold nanoparticles starts accumulating deep inside tumors within minutes of injection and can be activated for an effective treatment within two hours. The same drug injected alone takes two days to gather and attacks the tumor from the surface - a far less effective route."
"Nanotechnology is the engineering of functional systems at a molecular scale. This technology is indispensable because many common substances have different and useful properties when reduced in size. It promises to improve the performance of existing technologies significantly."

Materials Science This Week [contains links to several stories]
Materials Science
Feb. 11

"Our top story this week comes from regular contributor Professor Geoff Ozin from the University of Toronto - in his most recent guest article, the professor looks at how researchers might be able to use nanochemistry to help tackle the world's energy problems, with devices emerging in a great number of fields, including battery technology, solar power, and supercapacitance. Click here to learn more!"

Nanotechnology mimics nature for antibacterial 'skins'
Plastics and Rubber Weekly
Feb. 14
Barry Copping

"Taking a lead from animals such as dolphins and pilot whales that are known to have anti-fouling skins, researchers from the Industrial Consortium on Nanoimprint (ICON) at Singapore's Agency for Science, Technology and Research (A*STAR) are using nanotechnology to create synthetic, chemical-free, antibacterial surfaces."

Eco-credentials of nanomaterials in question
RSC
Feb. 15

"Cleaning products and lubricants containing nanomaterials will be allowed carry a logo indicating that they are environmentally friendly, following the agreement on 11 February of criteria for the European Union's Ecolabel scheme."