InterNano

Informatics for Nanomanufacturing

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What is Nanoinformatics?

Nanoinformatics involves the development of effective mechanisms for collecting, sharing, visualizing, modeling and analyzing information relevant to the nanoscale science and engineering community. It also involves the utilization of information and communication technologies that help to launch and support efficient communities of practice. Nanoinformatics is necessary for comparative characterization of nanomaterials, for design and use of nanodevices and nanosystems, for instrumentation development and manufacturing processes. Nanoinformatics also fosters efficient scientific discovery and learning through data mining and machine learning techniques.

What is InterNano?

InterNano supports the information needs of the nanomanufacturing community by bringing together resources about the advances in applications, devices, metrology, and materials that will facilitate the commercial development and/or marketable application nanotechnology. Built on an open source framework and espousing an open access philosophy, InterNano employs strategic collection development and community building as the information service of the NNN.

How does InterNano advance Nanoinformatics?

InterNano is building up a suite of Informatics tools for the nanomanufacturing community, beginning with three components: a directory to find and establish communication with collaborators; a taxonomy to discover topical nanomanufacturing information; and a process database to share standard nanomanufacturing processes. InterNano is also currently forging partnerships that will work toward the open exchange of data through federated databases, metadata standards, and advanced analytical tools.

Multiple ways to discover content on InterNano

One-click access to all content tools and features via drop down navigation and search functionality

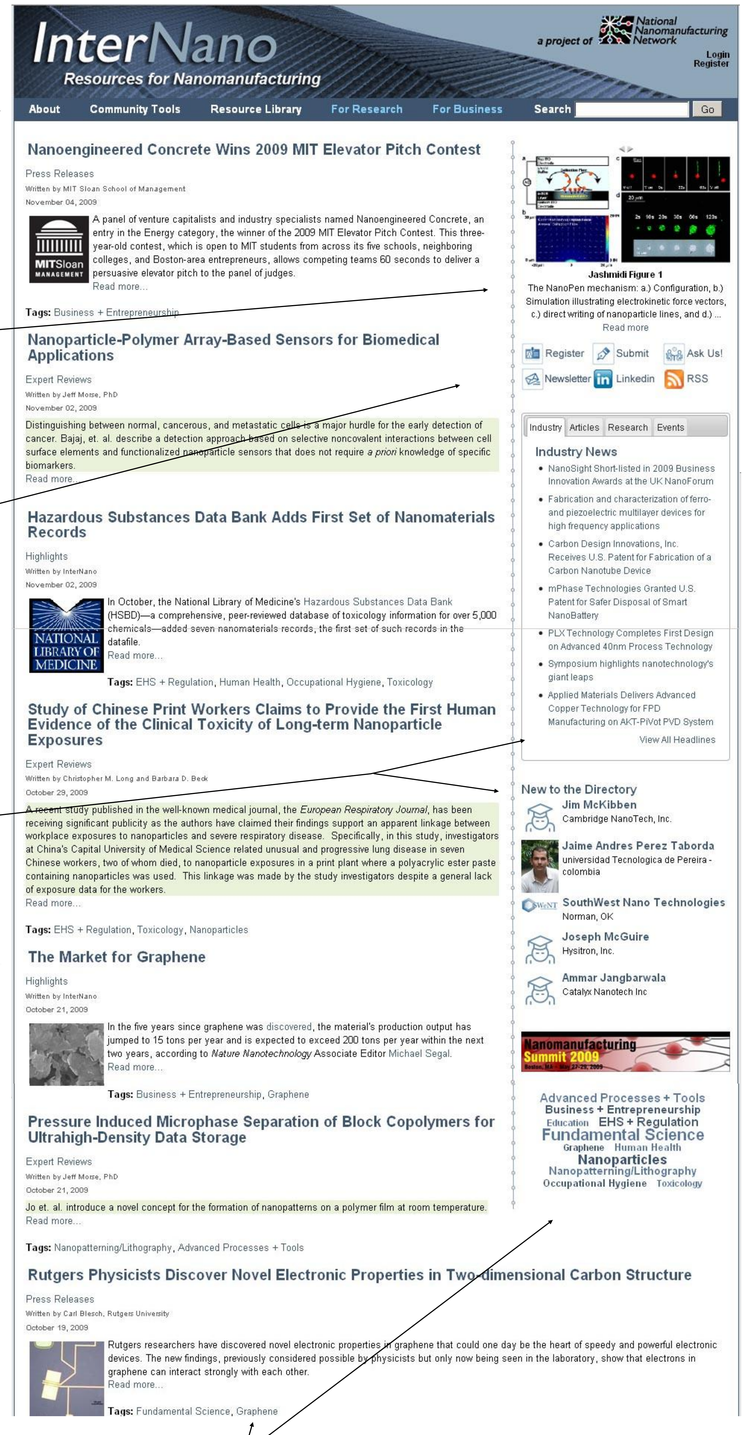
Rotating ads and review graphics lead directly to content.

User Toolbox promotes interaction with the National Nanomanufacturing Network.

A tabbed selection of dynamic feeds: filtered news headlines, filtered journal publications, recent additions to the repository, upcoming events, and directory entries

All published content cycles through the homepage, including Expert Reviews, Highlights, Press Releases, Calls for Papers, and more.

Taxonomy tags lead to topical content.



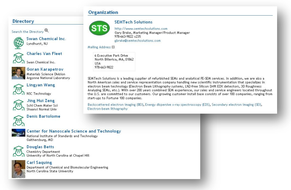
InterNano combines three component areas and makes them available through a single unified, usable, and accessible interface.

Content:
Collecting and creating content to establish nanomanufacturing as an essential sub domain of nanotechnology

Community:
Enabling people to identify themselves as nanomanufacturing practitioners and engaging this community

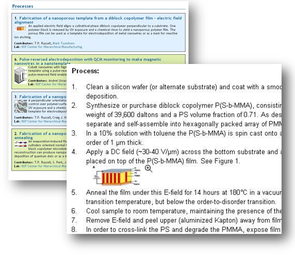
Informatics:
Presenting tools as well as information to facilitate decision making

Building up a suite of Informatics tools on InterNano



← **The InterNano Directory** is a listing of experts and organizations that are engaged in nanomanufacturing and related fields. The purpose of the Directory is two-fold: to bring together people and organizations that have complementary needs and services, and to encourage collaboration. The Directory is indexed and fully searchable; it is linked to the InterNano Taxonomy where terms have been applied to an entity.

← **The InterNano Taxonomy** is a tool for domain definition and information discovery. It provides a list of nanomanufacturing terms, comprised of seven hierarchical categories from materials to informatics down to three levels of granularity with a cloud view option. The taxonomy is fully integrated into the site, and links to all tagged content.



← **The InterNano Process Database** is a knowledge base of user-supplied techniques for processing nanoscale materials, devices and structures that includes step-by-step process descriptions, images, raw materials and materials properties, notes on methodology and environmental variables, and associated references including patents. The goal of the Database is to share detailed, application-level knowledge between community members.