NAN MATERIAL REGISTRY

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NANOMATERIALREGISTRY

Funded by:

NIBIB

NATIONAL® CANCER INSTITUTE

Comprehensively curated, validated data on a scale suitable for decision making

Web Address: www.nanomaterialregistry.org

WELCOME TO THE NANOMATERIAL REGISTRY!

The Nanomaterial Registry is a one-stop, authoritative, fully curated resource that provides information on the biological and environmental implications of well-characterized nanomaterials. The Nanomaterial Registry is being built through strong collaborations with broad stakeholder groups that represent the diverse nanomaterial community, including industry, regulatory institutions, government, and academia. LEARN MORE ABOUT OUR VISION WHAT IS CURATED DATA? >

Nanomaterial Registry Minimal Information Standards

Minimal Information Corr Standards

Compliance Levels

Instance of Matching & Similarity

Comparison

BROWSE NANOMATERIALS A TOOL FOR



A TOOL FOR THE NANOMATERIAL COMMUNITY

An authoritative website that compiles data from multiple databases into a single resource, the Nanomaterial Registry (NR) provides tools for analyzing and comparing data on the biological and environmental implications of well-characterized nanomaterials. This resource will evolve as the quality and quantity of the information on nanomaterials improve. Hundreds of nanomaterial entries have been curated into the NR for physico-chemical characteristics and are available to the public. Biological and environmental study data for existing nanomaterial entries will also be curated into the NR.

To access this information, search or browse the database using the buttons on this home page. From a query results table, you can request protocol on the power back. Econy a dread teams table, you can request to access the protocol of the search of provide the gatabase needs the table.

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LATEST NEWS

May 2012 - The U.S. Government Accountability Office has released a report



CAPABILITIES NEEDED FOR DATA INTEGRATION



NANOMATERIALREGISTRY

DOMAIN CHARACTERIZATION + **STUDY DATA**





- Validated both programmatically and by a team of scientists
- Integrated through controlled vocabulary and data formatting
- Relevant a growing body of data is available to the public

NANOMATERIALREGISTRY

LOOKING ACROSS THE CHARACTERIZATION DATA



LOOKING ACROSS CHARACTERIZATION PROFILES



- 20+ Measurement types are curated in the Registry for Particle Size
- Particle size is frequently reported without technique
- Tracking the parameters validates research data and enables analysis

Seeing Trends in Integrated Data

Particle Size Example



LOOKING ACROSS TECHNIQUES



Techniques used to measure particle size

LOOKING ACROSS PARAMETERS



Parameters reported for Dynamic Light Scattering



LOOKING ACROSS PARAMETERS

Water is the most commonly used solvent used for DLS (in Registry Data)



LOOKING ACROSS CHARACTERIZATION DATA

QUESTION

How are the Zeta Potentials of silver nanomaterial from specific product lines affected by capping agents?



NanoXact

INTEGRATION

✓ The ability to look across data to see trends and linkages \checkmark What questions can be

answered?

IMPACT Appropriate selection of proper in vitro toxicology assays





SILVER nanomaterial study (data record NR1038)

NAN MATERIAL REGISTRY

THANK YOU!

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