



SECOND INTERNATIONAL NANOTECHNOLOGY CONFERENCE ON COMMUNICATIONS AND COOPERATION

Abstract

NIOSH at five years of NNI

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The National Institute for Occupational Safety and Health (NIOSH) is a government leader in research to address the occupational safety and health applications and implications of nanotechnology. This role reflects NIOSH's mission as the federal agency that conducts research and makes recommendations to prevent work-related injuries and illnesses. It also reflects NIOSH's participation with other government agencies and private organizations under the National Nanotechnology Initiative.

NIOSH conducts a strategic research program to advance scientific knowledge in areas that are most relevant for answering the question of whether nanomaterials may have unintended, work-related effects on human health. This includes research to identify ways in which workers might be exposed to nanoparticles in the manufacture or use of nanomaterials, the ways in which nanoparticles may enter the body through potential occupational exposures, the ways in which nanoparticles may interact with the body's biological systems, methods for reliably measuring occupational exposures, and appropriate ways to control exposures. NIOSH has issued for public review and comment a web-based document, "Approaches to Safe Nanotechnology," that responds to stakeholder requests for interim guidance. The interim guidance will evolve as research progresses for gaining greater understanding of the characteristics and potential effects of nanomaterials.

NIOSH's leadership role builds on its experience in researching and defining characteristics, properties, and effects of ultrafine particles such as welding fumes, beryllium and diesel particulate, which provide a degree of insight into the understanding of engineered nanomaterials. NIOSH's role also builds on its nationally and internationally recognized experience in building strong stakeholder partnerships, conducting sound scientific laboratory studies, and developing reliable industrial hygiene polices and practices. NIOSH's accomplishments and current research activities in nanotechnology will be highlighted in this presentation.