Nanoparticle Production and Application Concerns

# Abstract

# Introduction

This session will include the history of the Nanoparticles, the benefits that nanoparticles can bring to us, and some application examples about the nanoparticles.

­­­The advent of nanotechnology is considered to be the biggest engineering innovation since the Industrial Revolution. This new technology is promised to reengineer the man-made world once again. Much like the Industrial Revolution, the nanotechnology brings a brand new way to enhance the quality of life. This includes enhancing strength, durability, flexibility, performance, and inimitable physical properties. The worldwide market for products produced using nanotechnology is estimated to reach US $1 trillion by 2015 {{181 Gwinn,Maureen R. 2006}}. But at the same time, our understanding of the potential toxicity of nanoparticles remains rudimentary . This may result in unpredictable adverse health effects. Failure to address these imminent human health issues in a cohesive and concerted manner by industry, academia, government, environmentalists, and scientists may lead to detrimental health effects caused by exposure to nanoparticles {{181 Gwinn,Maureen R. 2006}}.

due to the technical difficulties, the productions and applications are not fully understood or controlled. Nanoparticle is the core of the nanotechnology.

Sometimes, nanoparticles are also called ultrafine particles. Although they do share some common properties, such as their diameters are both less than 100nm, yet they refer to different concepts. Nanoparticles are

# Problems with Nanoparticle Production

This will include problems that occurred during nanoparticle productions in different fields.

# Possible Solutions

This includes the solutions that have been proposed by experts.

# Conclusion

This is the conclusion of the discussion.