

## **Announcement**

### **-APT Distinguished Paper Award 2008-**

On behalf of the Awarding Committee of Advanced Powder Technology, we are pleased to announce that the following paper has been selected as the winner of the seventh APT Distinguished Paper Award among the papers published in Vol. 16, Nos 4-6 (2005), Vol.17 (2006), Vol.18 (2007) and Vol. 19, Nos 1-3 (2008):

Title: Influence of shape, adhesion and simulated lung mechanics on amorphous silica nanoparticle toxicity

Authors: Scott C. Brown, Mohammed Kamal, Najmunnisa Nasreen, Aidos Baumuratov, Parvesh Sharma, Veena B. Antony and Brij M. Moudgil (Univ. of Florida)

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Endorsement by the Awarding Committee:

We are well aware of what we should pay attention to the effects of inhaled powders on human health, especially regarding harmful effects such as silicosis. Recently, the key word “nano-risk” has been established to describe the harmful effects of nanoparticles on human health.

This paper reports several useful data concerning the nano-risk in catching up with the recent trend in nanoparticle research. The authors prepared various types of amorphous silica nanoparticles having different shapes and surface properties prepared with physisorption of fibronectin and chemisorption of polyethylene glycol. Cytotoxicity and inflammatory effects of these nanoparticles were evaluated by measuring lactic acid dehydrogenase and interleukin-8 release. The experimental results suggested that the particle exposures induce these harmful effects. It has also been confirmed that shape-induced aggregation may play a significant role in mitigating particle clearance pathways.

This paper clearly presents pioneer work to assess risks of nanoparticles. The work can be highly rated from a practical point of view as well as from a scientific one. Since this paper is expected to contribute to the development of powder technology and science, it is worth our while to select this paper for the APT Distinguished Paper Award.

*The Society of Powder Technology, Japan*