Labeling Nanotech-Enabled Products to Advance Social Responsibility

Plática Plenaria

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ABSTRACT

There are more than 800 nanotech-enabled products entering the market according to an on-line inventory database in August 2008. It is expected that our daily life will encounter more and more nanoproducts. Under such circumstances, two issues are observed. The first one is that a product with nano-prefix, the price could be skyrocketed by more than ten times. This resulted in many fake nanoproducts. The second one will be the safety to consume the nanoproducts.

In Taiwan, we had established a nanoMark system. The purpose of this system is to protect the consumers to avoid waste money. It also aims to protect good companies from unfair competitions with so-called low quality or fake nanoproducts. Moreover, this system is expected to facilitate healthy developing nanoproducts to increase public trust. As a result, it will facilitate trade to stimulate economic growth. In this presentation Taiwan nanoMark system will be discussed in detail, including how to choose which products to have nanoMark as well as what are the requirements. Photocatalyst anti-bacterial tiles will be an example to illustrate our approaches. The status and evolution of this system will be presented. Some observations of nanoMark impact to industry will be discussed.

To successfully implement the nanoMark system, we need good nano measurement techniques. It is not easy to develop nanometrology. An approach is through collaboration. In this presentation, I'll show you the accomplishments of an APEC Industrial Science and Technology Working Group project on "Nanoscale Analytical and Measurement Methods". The focus of this project is on the measurement of nanoparticle size, thin film thickness and thin film mechanical properties.