

**TAPPI PLACE Division**  
**Flexible Packaging Summit**  
**April 30, 2009**



Westin - Brewey District  
 310 South High Street , Columbus, OH  
 866-716-8104

**Symposium on Nanomaterials for Performance Modification of Flexible Packaging**

Nanomaterials are being rapidly developed for enhancing the properties of flexible packaging. The primary objective in formulating and introducing these nanomaterials into flexible packaging is to improve the protection, safety and potentially the shelf-life which flexible packaging currently offers a wide range of perishable and non-perishable products. By introducing nanomaterials with high performance mechanical and thermal properties, the impact of packaging stresses such as mechanical, thermal, chemical, and those stresses which are biological, may be significantly reduced. Permeation performance of existing barrier materials could also be positively modified. This Symposium will explore the latest developments in nanotechnology products for modifying the molecular barrier properties of flexible packaging. Presentations will be made by industry experts as outlined in the grid below:

Time	Session Title	Presentation Title	Presenters
8:30	Nano Barrier Enhancement of Flexible Packaging Materials	<i>Polymer/Inorganic Nanocomposites: Opportunities for food packaging barrier</i>	<i>Evangelos Manias, Penn State Univ.</i>
9:00		<i>Nanocomposite materials for film packaging applications</i>	<i>Dr. Tie Lan, Nanocor</i>
9:30		<i>Nanocomposite polypropylene film for food packaging applications</i>	<i>Sarah Schirmer, Natick Dev. &amp; Eng. Center</i>
10:00	<b>Break</b>		
10:30	Anti-Microbial Nanotechnologies for Flexible Packaging	<i>Nanotechnology's impact on antimicrobial and active packaging</i>	<i>Dr. Joseph Hotchkiss, Cornell Univ.</i>
11:00		<i>Silver nano-particles for antimicrobial food and beverage packaging</i>	<i>Dr. Reyad Sawafra, Quartek Corporation</i>
11:30		<i>FDA &amp; EC regulations on antimicrobial food contact packaging</i>	<i>George Misko, Keller &amp; Heckmann</i>
12:00	<b>Lunch Break</b>		
1:30	Intelligent Packaging Nanotechnologies	<i>NanoBio Sensors &amp; integrated microsystems for intelligent food packaging</i>	<i>Dr. Evangelyn Aloclilja, Michigan State Univ.</i>
2:00		<i>Temperature &amp; deformation sensors for polymer films</i>	<i>Christoph Weder, Case Western Univ.</i>
2:30		<i>Printed Intelligence in Packaging: Current &amp; Potential Applications in Nanotechnology</i>	<i>Dr. Islem Yezza, Quebec Institute of Graphic Comm.</i>
3:00	Issues, Challenges and the Future of Nanomaterials	Panel Discussion	All presenters
3:30	<b>Concluding Remarks / End of Program</b>		