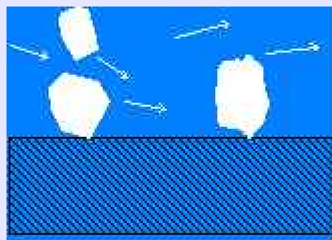

CALL FOR PAPERS

TWELVETH INTERNATIONAL SYMPOSIUM ON
PARTICLES ON SURFACES: DETECTION, ADHESION AND REMOVAL

LOUISVILLE, KENTUCKY USA, May 4-6, 2010

This will be the 12th event in the series of symposia on particles on surfaces initiated as part of the Fine Particle Society meeting in 1986. Particles are yield detractors in the manufacture of sophisticated and sensitive electronic components and are very undesirable in many other technologies. Contamination of optical surfaces and shorting of microelectronic circuits by conducting particles, among other concerns, underscore the importance of particle detection, adhesion and removal. On the other hand, however, in certain instances particle adhesion to surfaces is necessary. The purpose of this symposium is to address the vast ramifications of particles on solid surfaces by bringing together specialists in many allied fields to discuss their latest findings and to identify areas for further investigation. Various types of substrates and particles --metals, oxides, glass, and polymers-- will be covered.

We are happy to announce that this symposium will be held in conjunction with the Process Cleaning Expo 2010 (**PCx 2010**)which will be held at the Kentucky International Convention Center in Louisville. The two events will be held in the same location in order to foster mutually beneficial interactions between those attending the exposition, whose primary interests are the practical removal of contaminants from commercial products, and those participating in the symposium who are more focused on understanding the fundamental physicochemical interactions and processes which are critical to successful particle contaminant removal. Thus we hope to promote a synergy between the two interests which both sides will find useful and informative. The technical program will comprise both invited and contributed papers ranging from topical overviews to original research and industrial applications.

THE SYMPOSIUM WILL EMPHASIZE THE FOLLOWING TOPICS:

- **Sources and mechanisms of particle contamination**
  - Intrinsic and extrinsic
  - Nanometer to micrometer scale
- **Factors that influence particle adhesion:** Chemistry, topography, shape, size, relative humidity, medium, etc.
- **Particle adhesion measurement techniques**
  - Forces affecting adhesion: JKR theory, Hamaker theory
- **Detection, identification and characterization of particles on surfaces**
  - Micrometer scale
  - Nanometer scale
- **Techniques for particle removal**
  - Challenge of nanoscale removal
  - Fluid dynamics of particle removal
- **Implications of particle contamination**
  - Microelectronic applications
  - Biomedical applications
  - Optics and precision tool applications
- **Thermodynamics of particle removal** Including interactions with fluids, electrolytes and solvents
- **Detection/Removal of bacteria/viruses considered as particles**

This symposium is being organized under the direction of Dr. K. L. Mittal, Editor-in-Chief, Journal of Adhesion Science and Technology in concert with the organizing committee of **PCx 2010.** Please notify the conference chairman of your intentions to present a paper as early as possible. An abstract of about 200 words should be sent by **February 15, 2010** to the conference chairman by any of the following methods:

E-mail: rhl@mstconf.com

FAX: 212-656-1016

Regular mail:

Dr. Robert H. Lacombe
Conference Chairman
3 Hammer Drive
Hopewell Junction, NY 12533

Contact by phone:

845-897-1654; 845-227-7026

Full details will be maintained on the MST CONFERENCES web site:

http://mstconf.com/particle12.htm