

ANNOUNCEMENT AND PRELIMINARY PROGRAM ELEVENTH INTERNATIONAL SYMPOSIUM ON **PARTICLES ON SURFACES: DETECTION, ADHESION AND REMOVAL**

**To be held on the campus of the
University of Maine, Orono,
Maine, USA, July 16-18, 2008**



This will be the eleventh 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. The technical program will comprise both invited and contributed papers ranging from topical overviews to original research and industrial applications. What follows is a partial listing of papers to be presented

SAMPLING OF PAPERS TO BE PRESENTED INCLUDE

Uwe Schlosser, **Thomas Bahners** and Eckhard Schollmeyer; Deutsches Textilforschungszentrum Nord-West e. V., Adlerstr. 1, 47798 Krefeld, GERMANY;

Some Remarks on the Removal of Adhering Particles by Oscillating Air Flows

Thomas Bahners and Eckhard Schollmeyer; Deutsches Textilforschungszentrum Nord-West e. V., Adlerstr. 1, 47798 Krefeld, GERMANY;

Electrospun Nanofibers – a Way to Improved Wet Filtration Efficiency of Deep-bed Filters

E. Kesters, M. Claes, Q.T. Le, K. Barthomeuf, M. Lux, G. Vereecke*, **T. Bearda** and J. B. Durkee; IMEC, 75 Kapeldreef, 3001 Leuven, BELGIUM;

Selection of ESH Solvents for Cleaning Applications in Semiconductor Manufacturing

John B. Durkee and Anselm Kuhn; POB 847 Hunt, TX 78024; **Measuring Particulate Surface Contamination in an Industrial Setting**

Chuck Extrand; Entegris Research Group, Entegris, Inc., 3500 Lyman Blvd., Chaska, MN 55318; **Super Wetting of Structure Surfaces**

David Grojo; Steacie Institute for Molecular Sciences, National Research Council Canada, 100 Sussex Drive, Ottawa, ON K1A 0R6, CANADA; **Laser-particle Interactions for Particle Removal and Nanofabrication Applications**

Sandip Halder, Twan Bearda, Karine Kenis, Tom Janssens, Toan-Le Quoc, Kurt Wostyn, Peter Leunissen, and Paul Mertens; IMEC, Kapeldreef 75, B-3001 Leuven BELGIUM; **Particle Removal Efficiency and Damage Analysis of Patterned Wafers in Different Solvents after Megasonic Cleaning**

Hubert Gojżewski^{1,2}, Arkadiusz Ptak² and **Michael Kappl**¹; Max Planck Institute for Polymer Research, Ackermannweg 10, 55128 Mainz, GERMANY; **Adhesion on Self-assembled Thiol Monolayers by Means of High-rate Dynamic Force Spectroscopy**

Rajiv Kohli; Washington Group International, NASA Johnson Space Center, P.O. Box 58128, Houston, TX 77258; **Removal of Micro and Nanosize Contaminant Particles from Solid Surfaces**

Luigi Scaccabarozzi; ASML, De Run 6501, 5504 DR Veldhoven, THE NETHERLANDS; **Specifications and Prospects for Cleaning and Inspection of EUV Reticles**

G. Lefèvre¹, M. Fédoroff¹, G. Cote¹, O. Dégardin^{1,2}, Lj. Čerović¹, S. Delaunay³, E.-M. Pavageau³, C. Mansour³, H. Catalette³, A. Jaubertie², A. Douce²; ENSCP - LECA - CNRS UMR 757511, Rue Pierre et Marie Curie, F-75231 Paris Cedex 05 FRANCE; **Studies on the Deposition of Metallic Oxides Particles - Application to Cooling Circuits of Pressurized Water Reactors**

M. K. Mazumder; Department of Applied Science, ETAS 575, College of System Engineering and Information Science, University of Arkansas at Little Rock, 2801 South University Avenue, Little Rock, AR 72204 ; **Dust Hazard Mitigation Methods for Mars and Lunar Missions**

Isabelle Tovena Pecault , GUILLAUME BASSO , François Gensdarmes; CEA/DAM CESTA, DLP/SCAL/LPO, BP 2, 33114 Le Barp, FRANCE; **Qualification of Particle Surface Probe**

F. Wali , D. M. Knotter , J.J. Kelly , F. Michel , and M van Straten ; University of Twente; **Preparation of mono-disperse silica particles with metal-ion tracer**

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 and Removal of bacteria/viruses considered as particles**

This symposium is being organized under the direction of Dr. K. L. Mittal, Editor, Journal of Adhesion Science and Technology by MST Conferences, LLC. A proceedings volume is planned for this symposium and further details will be provided in due course. 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 **April 30, 2008** to the conference chairman by any of the following methods:

E-mail: rhlacombe@compuserve.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

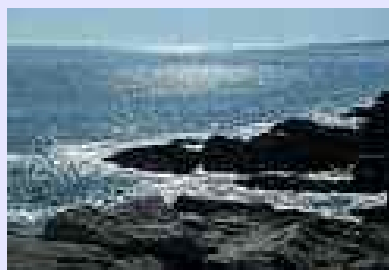
845-227-7026

Full conference details and registration via the Internet will be maintained on our web site:

<http://mstconf.com/particle11.htm>

Or mail response form below to conference chairman at address above

Maine is considered to be a vacation land by many in the continental US and the month of July is close to the height of the season with a number of pleasant attractions including the Acadia National seashore pictured below:



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I PLAN TO:

- ATTEND
- PRESENT A PAPER

TENTATIVE TITLE: _____

NAME:	COUNTRY:
ADDRESS:	TELEPHONE:
	FAX:
	E-MAIL: