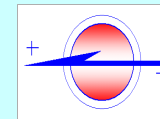


American Electrophoresis Society Program Grid



Annual Meeting 2011, Minneapolis MN , October 16-19, 2011

Monday, October 17		Tuesday, October 18		Wednesday October 19		General Announcements			
Room L100 D		Room L100 D		Room L100 E		Room L100 D			
(#6) - T3002 Advances In Electrokinetics and Electrophoresis - Fundamentals Chairs: Yolanda Fintschenko and Sumita Pennathur V. M. Ugaz Stochastic Resonance Enhances DNA Transport In the Entropic Trapping (8:30) B. Khusid Accumulation of Air Bubbles In Field Driven Oscillations of a Droplet (8:48) C. L. Wirth Probing the Basset Force Acting On a Particle Undergoing AC (9:06) X. Xuan Joule Heating Effects On Fluid and Particle Transport In Insulator-Based DEP (9:24) J. W. Thompson Impact of Material Morphology On Bioseparations In Nanocomposite (9:42) A. M. Drews AC Electrohydrodynamic Flows In Flame Plasmas (10:00) S. Pennathur Determining Zeta Potential Through the Solution Displacement Method (10:18) H. Moncada-Hernandez Dielectrophoretic Assessment of Microparticle Dielectric Properties (10:36)		(#220) - T3004 Fundamentals of Electrokinetic Flows: Novel Applications and Ionic Fluxes at Interfaces Chairs: Christa N. Hestekin and Jessica Houston M. Pribyl Kinetic Mechanism of Electrochemical Reactions In a Microfluidic Cell (8:30) A. S. Belyaev Effect of the Debye Screening Parameter and Electrolyte Valence On the (8:48) J. A. Pascal Effect of Morphology On Optimal Separation Times In Nanocomposite Polymer (9:06) J. J. Simhadri Role of Material Morphology On Electrophoresis of Bio-Molecules (9:24) A. Mani Desalination Shocks In Cross Flows (9:42) D. Deng Observation of Surface-Charge-Induced Overlimiting Current In Porous (10:00) J. Zhu Electroknetic Particle Separation by Charge In Spiral Microchannels (10:18) S. W. Joo Field Effect Control of DNA Nanoparticle Electrokinetic Translocation (10:36)		(#237) - T3009 Microfluidics - Detection Chairs: Guiren Wang and Zdenek Slouka Y. Wang A Hybrid Nanoscale Biosensing Platform Based On Dielectrophoresis and (8:30) Z. Slouka Mechanistic Study of Biosensing Using Ion Selective Membranes/Gels (8:51) R. C. Gallo-Villanueva Dielectrophoretic Separation of Particles In a Multi-Section Device (9:33) G. Wang Dielectrophoretic Cell Sorters for High Purity and Throughput (8:30) B. Khusid Dielectrophoretic Filter for Engine Oil (9:54) A. Gencoglu pH Gradient Formation In An Insulator-Based DEP Device Used In Protein (10:15) P. Sides Real-Time Detection of Nanoparticle Deposition by Measurement of Zeta (10:36)		(#424) - T3010 Advances In Electrophoretic Protein Separation and Analysis Chairs: Tom Berkelman and Phil Beckett E. Pryor The Use of Microchannel Electrophoresis to Understand Amyloid Aggregation (8:30) A. Ros Insulator-Based Dielectrophoresis Applied to Immunoglobuline G and Bovine Serum (8:51) R. Baliban PILOT_PROTEIN: A High-Throughput Method for In Silico Discovery of Peptides, Proteins (9:12) P. A. DiMaggio Jr A Multi-Dimensional Approach for Comprehensive LC-MS/MS Identification and Quantitation o (9:33) T. Berkelman Fractionation of Complex Peptide Mixtures by IEF: Comparison of off-Gel with In-Gel (9:54) N. Kendrick Identification of Tyrosine Kinases and Their Substrates In Human Tumor Samples by 2D (10:15) F. Jahnke The Charge of Green Fluorescent Protein, and Its Effect On Advanced Electrophoretic (10:36)		Sunday Workshops Many thanks to our meeting organizers! Blanca H. Lapizco-Encinas & Zachary Gagnon and to all Session Chairs & Vice Chairs AES AWARD session in honor of Kelvin H. Lee, Wednesday October 19, Room 101 E, 3:15 to 5:45 PM. The 2011 Awardees are: - Professor Kelvin H. Lee, Chemical Engineering, University of Delaware, KHL@udel.edu - Dr. Nancy Kendrick, Kendrick Laboratories, Inc, nancy@kendricklabs.com - Professor Larry Grossman, School of Medicine, Wayne State University l.grossman@wayne.edu	
Room L100 D (#101) - T3003 Microfluidics: Bioanalytical Applications Chairs: Edgar D. Goluch and Adam R. Hall D. W. Olson The Effect of Disorder On DNA Dynamics In Post Arrays During Electrophoresis (12:30) P. V. Jones Bioparticle Capture In a Sawtooth Dielectrophoretic Microchannel (12:48) H. Moncada-Hernandez Effects of Cell Shape On Trapping Efficiency In Insulator-Based DEP (12:48) K. Rood Two-Phase Microfluidic Flow System for the Isolation of Circulating Melanoma Cells (1:24) M. Tanyeri Multiplexed Detection of Viral Nucleic Acids In a Combinatorial Microfluidic (1:42) R. L. Srinivas Barcoded Microgel Particles and Scanner for Multiplexed Protein Detection (2:00) T. A. Webster Monitoring Pycocyanin Production by Bacteria Using Nanofluidic Electrochemical (2:18) A. R. Hall Scanning Helium Ion Microscope (HIM)-Milled Solid-State Nanopores (2:36)		Room L100 D (#320) - T3006 Nanoscale Electrokinetics Chair: Aditya S. Khair and Petia M. Vlahovska M. Bazant Nanoscale Electrokinetics of Correlated Electrolytes and Ionic Liquids (12:30) D. Gillespie Efficiently Accounting for Ion Correlations In Electrokinetic Nanofluidic (12:45) B. J. Hinds Highly Efficient Electrophoretic and Electroosmotic Flow Through (1:00) H-C Chang Rectification, Hysteresis and Oscillations In Nanoscale Electrokinetics (1:15) L-J Cheng Micro- pH Tuner and Its Applications Based On Field-Enhanced Water (1:30) P. Sides Measurement of the Zeta Potential and Darcy Coefficient of Porous (1:45) C. L. Wirth Symmetry Breaking During AC Electrophoresis Normal to An (2:00) J. Wang Low-Frequency Dielectrophoretic Response of a Single Particle In (2:15) O. Schnitzer Electrokinetic Lift In Shear Flows (2:30) E. Yariv Streaming Potential Revisited (2:45)		Room L100 E (#276) - T3005 Biomedical Diagnostics Chair: Soumya K. Srivastava and Adrienne Minerick R. Cao Time-Resolved Measurement Used In Flow Cytometry (12:30) S. Puttaswamy Rapid Determination of the Minimum Inhibitory Concentrations (12:51) K. M. Leonard Dependence of Membrane Antigen Expression On Cross-Over (1:12) R. C. Gallo-Villanueva Dielectrophoretic Separation of Mouse Ovarian Surface Epithelium Cells (1:33) A. Melvin Development and Characterization of Degron-Based Substrates Capable of E3 (1:54) S. Senapati Designing Ion Selective Membranes for Biosensing (2:15) A. D. Rojas Dielectrophoretic Separation of Cancer Cells Based On Metastatic Stage(2:36)		Room L100 D (#526) - T3011 Electroporation, Electrophysiology and Cell Electrokinetics Chairs: Rafael V. Davalos and Stuart J. Williams A. Salmanzadeh High Throughput Marker-Free Cancer Cell Enrichment Technique Using cDEP (12:30) M. B. Sano Design, Development, and Analysis of a Multilayer Contactless DEP Device to Separate (12:48) N. Hu Sterilization of Bacteria by Pulsed Electric Field On Microfluidic Chip (1:06) W-C Liao Nanoelectroporation and Its Comparison with Micro and Bulk Electroporation (1:24) N. Hu A 3D Bulk Microelectrode Array for High Throughput Cell Electroporation (1:42) S. Rose Developing a Method for the Isolation of Intact Viable Giant Mitochondria Utilizing d (2:00) C. Satori Capillary Electrophoresis of Magnetically Enriched Autophagosomes (2:18) C. R. Buie High Sensitivity Insulator Based Dielectrophoretic Phenotyping of Bacteria (2:36)		Tuesday Oct 18: AES Poster Session Sponsored by LabSmith (#419) - T3013 Poster Session, Exhibit Hall B, 6-8 PM. Please contact Adrienne Minerick (minerick@mtu.edu) and Victor Ugaz (ugaz@tamu.edu). Tuesday Oct 18 AES Business Meeting in room L100D at 11 am. Want to get involved with AES Programming? Attend the business meeting and volunteer by contacting our 2012 organizers: Yolanda Fintschenko (yfintschenko@labsmith.com) and Aditya Khair (akhair@andrew.cmu.edu).	
Room 101 D (#179) - T3001 Plenary Session of the American Electrophoresis Society Chairs: Blanca H. Lapizco-Encinas and Zachary R. Gagnon E.B. Cummings Diffusionless Particle Separation In Coherent Arrays of Flow Perturbors (3:15) J. G. Santiago On-Chip Sample Preparation and Nucleic Acid Profiling Using Isotachopheresis (3:45) L. Y. Yeo Acoustically-Driven Microcentrifugation (4:15) E. A. Arriaga Subcellular Complexity, An Electrophoretic Perspective (4:45) M. T. Bowser Applications of Micro Free Flow Electrophoresis (5:15)		Room L100 D (#365) - T3008 DNA Analysis In Microfluidic and Nanofluidic Devices Chairs: Alexandra Ros and Nathan Swami J. T. Del Bonis O'Donnell Analysis of Single Nucleotide Polymorphisms (SNPs) by (3:15) J. W. Schneider Rapid, Gel-Free Electrophoretic Separation of DNA Oligonucleotides Using (3:31) S-G Park DNA Electrophoresis In a Nanofence Array (3:47) J. Butler Saturation of the Cross-Stream Migration of DNA Driven by a Pressure Gradient a (4:03) R. Martinez-Duarte Concentration of DNA Using 3D Carbon-Electrode Dielectrophoresis (4:19) L. Gan Insulator-Based Dielectrophoretic (IDEP) Manipulation of DNA Origami (4:35) W-C Liao Study of DNA Dynamics In Micro/Nanofluidic De-Wetting Free Surface Flows (4:51) F. R. Phelan Jr Entropophoresis of a Polymer Chain Confined In a Nanofluidic Staircase (5:07) N. Swami Nanofluidic Device Design for Ss-DNA and Protein Pre-Concentration In (5:23)		Room L100 E (#366) - T3007 Electrokinetic Behavior of Microparticles and Nanoparticles: Fundamentals and Applications Chairs: Mark Hayes and Edgar A. Arriaga G. G. Wolken Characterization of Membrane Potential of Individual Mitochondria by CE and IEF (3:15) A. S. Khair Sedimentation of Charged Colloids In Strong Gravitational Fields (3:33) C. F. Ivory Size Exclusion Electrofofocusing In Nanochannels (3:51) N. Wu Directed Assembly of Colloidal Dimers Under Electric Field (4:09) S. J. Williams Colloid Aggregation and Concentration Through Double Layer Polarization (4:27) R. M. Rock Ensemble Average TIRM: Theory and Application In Imaging Amperometry (4:45) J. Wang 2-Dimensional Mapping of Dielectrophoresis-Free AC Electroosmotic Flow (5:03) R. Sharma Remote Powering and Steering of Self-Propelling Microcircuits by Modulated (5:21)		Room 101 E (#565) - T3012 Award Session of the American Electrophoresis Society In Honor of Kelvin Lee Chairs: David E. Garfin and Blanca H. Lapizco-Encinas L. I. Grossman D. E. Garfin History First Award Session of the American Electrophoresis Society (3:15) K. H. Lee The Importance of Electrophoresis In Protein Analysis: From Sandefjord and Wild Dunes (3:45) K. N. Valente Optimization of Sample Preparation for Two-Dimensional Protein Electrophoresis (4:15) M. A. Burns Control In Microfluidic Devices (4:45) P. C. Wright Effective Separations: The Key for Proteomics (5:15)		Wednesday Oct 19: AES Banquet at 7:30pm! The AES Banquet will take place at Hell's Kitchen. The cost is \$50 payable either to AIChE at registration or at the door. During the banquet we will have a special talk "3M's Early History and Today" written by Donna Bangeon, given by Dr. Tom Hanschen	
Room 101 D (#179) - T3001 Plenary Session of the American Electrophoresis Society Chairs: Blanca H. Lapizco-Encinas and Zachary R. Gagnon E.B. Cummings Diffusionless Particle Separation In Coherent Arrays of Flow Perturbors (3:15) J. G. Santiago On-Chip Sample Preparation and Nucleic Acid Profiling Using Isotachopheresis (3:45) L. Y. Yeo Acoustically-Driven Microcentrifugation (4:15) E. A. Arriaga Subcellular Complexity, An Electrophoretic Perspective (4:45) M. T. Bowser Applications of Micro Free Flow Electrophoresis (5:15)		Room L100 D (#365) - T3008 DNA Analysis In Microfluidic and Nanofluidic Devices Chairs: Alexandra Ros and Nathan Swami J. T. Del Bonis O'Donnell Analysis of Single Nucleotide Polymorphisms (SNPs) by (3:15) J. W. Schneider Rapid, Gel-Free Electrophoretic Separation of DNA Oligonucleotides Using (3:31) S-G Park DNA Electrophoresis In a Nanofence Array (3:47) J. Butler Saturation of the Cross-Stream Migration of DNA Driven by a Pressure Gradient a (4:03) R. Martinez-Duarte Concentration of DNA Using 3D Carbon-Electrode Dielectrophoresis (4:19) L. Gan Insulator-Based Dielectrophoretic (IDEP) Manipulation of DNA Origami (4:35) W-C Liao Study of DNA Dynamics In Micro/Nanofluidic De-Wetting Free Surface Flows (4:51) F. R. Phelan Jr Entropophoresis of a Polymer Chain Confined In a Nanofluidic Staircase (5:07) N. Swami Nanofluidic Device Design for Ss-DNA and Protein Pre-Concentration In (5:23)		Room L100 E (#366) - T3007 Electrokinetic Behavior of Microparticles and Nanoparticles: Fundamentals and Applications Chairs: Mark Hayes and Edgar A. Arriaga G. G. Wolken Characterization of Membrane Potential of Individual Mitochondria by CE and IEF (3:15) A. S. Khair Sedimentation of Charged Colloids In Strong Gravitational Fields (3:33) C. F. Ivory Size Exclusion Electrofofocusing In Nanochannels (3:51) N. Wu Directed Assembly of Colloidal Dimers Under Electric Field (4:09) S. J. Williams Colloid Aggregation and Concentration Through Double Layer Polarization (4:27) R. M. Rock Ensemble Average TIRM: Theory and Application In Imaging Amperometry (4:45) J. Wang 2-Dimensional Mapping of Dielectrophoresis-Free AC Electroosmotic Flow (5:03) R. Sharma Remote Powering and Steering of Self-Propelling Microcircuits by Modulated (5:21)		Room 101 E (#565) - T3012 Award Session of the American Electrophoresis Society In Honor of Kelvin Lee Chairs: David E. Garfin and Blanca H. Lapizco-Encinas L. I. Grossman D. E. Garfin History First Award Session of the American Electrophoresis Society (3:15) K. H. Lee The Importance of Electrophoresis In Protein Analysis: From Sandefjord and Wild Dunes (3:45) K. N. Valente Optimization of Sample Preparation for Two-Dimensional Protein Electrophoresis (4:15) M. A. Burns Control In Microfluidic Devices (4:45) P. C. Wright Effective Separations: The Key for Proteomics (5:15)		Wednesday Oct 19: AES Banquet at 7:30pm! The AES Banquet will take place at Hell's Kitchen. The cost is \$50 payable either to AIChE at registration or at the door. During the banquet we will have a special talk "3M's Early History and Today" written by Donna Bangeon, given by Dr. Tom Hanschen	

8:30 am to 11:00 am

12:30 pm to 3:00 pm

3:15 pm to 5:45 pm