American Electrophoresis Society Program Grid

Annual Meeting, Philadelphia, PA, November 16 – 20, 2008

All sessions held at the Marriott Philadelphia Downtown in Salon L

Monday, November 17

8:30 am to 11:00 am Session

#10 - Advances In Electrokinetics and Electrophoresis - Fundamentals (T3012)

***Chairs:* Brian Kirby; Huanchun Cui**

KD Dorfman	DNA Electrophoresis in Micro and Nano Geometries (8:30)
JA Pascal	Gel Morphology and Separation in Nanocomposite Gels (8:55)
EO Elele	Conductance of Surfactant and Electrolyte Solutions (9:20)
DC Pozzo	Protein-Surfactant Complexes In Gel Electrophoresis (9:45)
JA Pascal	Optimal Separation Times in an EFFF Separator (10:10)
B Khusid	MD Simulations of DC and AC Fields on Polyelectrolyte (10:35)

12:30 pm to 3:00 pm

#65 - Advances In Electrokinetics and Electrophoresis - Particles and Biomolecules (T3003)

Adrienne Minerick; Christa Hestekin

BH Lapizco-Encinas	Dielectrophoresis of Protein Particles (12:30)
KM Leonard	Dielectrophoretic Characterization of RBCs (12:51)
ZR Gagnon	Dielectrophoretic Electrothermal Cell Separation (1:12)
JR Molek	Capillary Electrophoresis of Pegylated Proteins (1:34)
O Selivanova	Effect of Serum Contaminants on CE of DNA and RNA (1:55)
M Oyanader	Flow Reversal in Capillary Channels with EOF (2:16)
JM Burke	Electrofocusing of Trace Contaminants (2:37)

3:15 pm to 5:45 pm

#136 - BioMEMS and Microfluidics: Cell & Biomolecule Analysis (T3011)

Chairs: Milica Radisic; Christa Hestekin

KD Dorfman	DNA Electrophoresis in Sparse PDMS Micropillar Arrays (3:15)
N Shi	Pore Morphology in Microchip DNA Electrophoresis (3:36)
BE Henslee	Optical Tweezers for Electroporation Analysis (3:57)
X Hu	Electric Field Effects on a Multi-Cell System (4:18)
MA Brown	Microfluidic Devices for Cell Separation (4:39)
H-Y Wang	Microfluidic Cell Array with Addressable Chambers (5:00)
FY Leong	Cell Migration In Tapered Micro-Channels (5:21)

Tuesday, November 18

#233 - Nanoscale Electrokinetics I (T3013)

Chair: Jonathan Posner

SM Han	Separation of Proteins in a Nanofluidic FET Device (8:30)
G Yossifon	Selection of Non-Equilibrium Over-Limiting Currents (9:05)
DN Petsev	Preconcentration and Separation in Nanofluidic Channels (9:30)
DA Boy	Diffusivity Effects in Nanochannel Particle Transport (9:55)
JD Posner	Electromigration Current Rectification in a Nanopore (10:15)
C Duan	Transport of Ions and Molecules in Nanofluidic Devices (10:35)

#302 - Nanoscale Electrokinetics II (T3000)

Chair: Jonathan Posner

J Han	Nanofluidic Concentration and Detection of Biomolecules (12:30)
MZ Bazant	Nanoscale Induced-Charge Electrokinetic Phenomena (1:05)
R Kawano	DNA Structure Discrimination in Single Protein Channels (1:40)
D Bottenus	Native pH Shifts In a Nanochannel Array (2:05)
W Timp	Stretching Genes (2:30)

#333 - BioMEMS and Microfluidics - Novel Applications (T3008)

Chairs: Hang Lu; Kevin Dorfman

D Stark	High-Throughput Microelectroporator (3:15)
J-H Huang	3-D Branched Microvascular Flow Networks (3:36)
SK Murthy	Microfluidic Negative Selection Cell Separation (3:57)
J Wang	Microfluidic Cell Electroporation Using a Mechanical Valve (4:18)
SG Achanta	Control of Nutrient Gradients for Plant Culture on a Chip (4:39)
N Bassik	Complex 3D Scaffolds for Cell Culture (5:00)
AJ Chung	Microfluidic Neuromuscular Control of Insect Micro-Air-Vehicles (5:21)

Wednesday November 19

#393 - Advances In Proteomics: New Technologies (T3004)

Chairs: Tom Berkelman; Phil Beckett

TK Pham	Gel and Shotgun Analysis of Membrane Proteins (8:30)
LA Finney	X-Ray Fluorescence Imaging Paired with Electrophoresis (8:50)
N Kendrick	2D Gel Western Blotting for Studying Disease Processes (9:10)
JC Liu	Visualization of Newly Synthesized Proteins In Mammalian Cells (9:30)
M Barthelery	Nuclear Proteomics (9:50)
K Xia	Proteomics-Level Identification of Kinetically Stable Proteins (10:10)
PA DiMaggio J	Identification of Post-Translationally Modified Proteins (10:30)

#456 - Advances In Proteomic Analysis & Microfluidic Technologies (T3000)

Chairs: Ajay Sharma; Victor Ugaz

BA Chromy	Multiplexed Proteomic Study of Host-Pathogen Interactions (12:30)
N Bao	Microfluidic Extraction of Intracellular Proteins from Bacterial Cells (12:51)
G Yossifon	Eliminating Electrokinetic Cross-Talk in Nano-Channel Arrays (1:12)
T Berkelman	Bead-Based Enrichment of Low-Abundance Proteins (1:33)
B Liu	Isotachophoresis Followed by Isoelectric Focusing (1:54)
Y-W Huang	Label-Free Detection of Proteins, DNA, and Other Analytes (2:15)
DE Discher	Protein Unfolding and Assembly in Solution and in Cells (2:36)

#518 - AES Poster Session (T3006) Exhibit Hall A at the Pennsylvania Convention Center

Chairs: Shashi Murthy; Jonathon Posner

The AES Poster Session will take place from 3:15 to 5:45pm Wednesday when three judges appointed by the council will determine winners of the Poster contest. Poster awards will be $200 for First Place; $100 for Second Place, $50 for Third Place and $25 for Honorable Mention. Note that AES posters will be up from Monday noon through Thursday noon for general viewing.

The AES business meeting will take place at 6:00 to 7:00pm Wednesday Nov. 19 in Room 307 of the Philadelphia Marriott. Please attend! The society needs your input. Organizers are needed for the 2010 meeting.

Thursday, November 20

#580 - Biomems and Microfluidics: Sensing, Detection, and Integration (T3002)

Chairs: Chang Lu; Saif Khan

H Lu	High Resolution In Situ Temperature Measurement (8:30)
S Puttaswamy	Micro-Device to Detect Bacterial Proliferation (8:50)
NS Lynn	Microfluidic Networks for Micromosaic Immunoassays (9:10)
X Cheng	Automated Monocyte Depletion for CD4 Counting (9:30)
JG Kralj	"Detectorless" Electrophoresis for Multiplexed Enzyme Assays (9:50)
T Leong	Self-Loading Lithographically Structured Microcontainers (10:10)
ED Goluch	Electrochemical Detection of Signaling Biomolecules (10:30)

#628 - Biomems and Microfluidics: Biomedical Diagnostics (T3001)

Chairs: Nimisha Srivastava; Siva Vanapalli

C Lu	Microfluidic Electroporative Flow Cytometry (12:30)
F Wang	Droplet-Based PCR in a Valveless Microfluidic Device (12:50)
H Lu	Multi-Time Point Cell Stimulus and Lysis (1:10)
R Singh	Acoustic Streaming Induced Flow on a Focused SAW Device (1:30)
H He	Polymeric Microfludic Biochips for ELISA (1:50)
N Agrawal	Neutrophil Isolation and Migration In Complex Environments (2:10)
SS Keshavam	Insulator-Based Dielectrophoretic System for Erythrocytes (2:20)

Tuesday's Field Trip! An AES Field Trip to the University of Pennsylvania Proteomics Center headed by Dr. Ian Blair will take place on Tuesday Nov. 18 from 3:15 to 5:45. The pickup site is the 12th St entrance at the Marriott. A fee of $20 payable at the pickup site will be charged to cover the bus expense.

Wednesday: AES Banquet at 7:30pm!
The AES Banquet will take place at Maggiano's Little Italy, 1201 Filbert St at 7:30 pm, after the business meeting. Delicious choices for appetizer, pasta, entrée and dessert are included along with a glass of wine at dinner. The cost is $50 payable either to AIChE at registration or at the door.

Many thanks to our meeting organizers!

Shashi Murthy & Jonathan Posner

and to all Session Chairs & Vice-Chairs

Many thanks also to companies sponsoring the AES!

BD Diagnostics

Bio-Rad Labs

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Nonlinear Dynamics

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