THE 14TH
INTERNATIONAL SCANNING PROBE
MICROSCOPY CONFERENCE

Toronto 2012

Toronto, Ontario, Canada
June 15 – 18, 2012

EDITORS:
ZOYA LEONENKO
BRENDA LEE

Department of Physics & Astronomy, Department of Biology
University of Waterloo
Waterloo, Ontario, Canada
# CONFERENCE ORGANIZERS

## Local Organizing Committee

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<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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<tr>
<td>Zoya Leonenko</td>
<td>University of Waterloo</td>
<td>Waterloo, Ontario, Canada</td>
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<td>(Chair)</td>
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<tr>
<td>John Dutcher</td>
<td>University of Guelph</td>
<td>Guelph, Ontario, Canada</td>
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<td>Cynthia Goh</td>
<td>University of Toronto</td>
<td>Toronto, Ontario, Canada</td>
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<td>Peter Grutter</td>
<td>McGill University</td>
<td>Montreal, Quebec, Canada</td>
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<td>Gilbert Walker</td>
<td>University of Toronto</td>
<td>Toronto, Ontario, Canada</td>
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<td>Jenniffer Fleet</td>
<td>University of Waterloo</td>
<td>Waterloo, Ontario, Canada</td>
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<td>Administration &amp; Finances</td>
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<td>Jenniffer Fleet</td>
<td>University of Waterloo</td>
<td>Waterloo, Ontario, Canada</td>
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<td>Management</td>
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<td>Jennifer Fleet</td>
<td>University of Waterloo</td>
<td>Waterloo, Ontario, Canada</td>
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## International Organizing Committee

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<tr>
<td>David Allison</td>
<td>The University of Tennessee</td>
<td>Knoxville, Tennessee, U.S.A.</td>
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<tr>
<td>Chunli Bai</td>
<td>Chinese Academy of Sciences</td>
<td>Beijing, China</td>
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<td>Johannes Barth</td>
<td>University of Technology</td>
<td>Munich, Germany</td>
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<td>Jeong-Woo Choi</td>
<td>Sogang University</td>
<td>Seoul, South Korea</td>
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<tr>
<td>Mitchel Doktycz</td>
<td>Oak Ridge National Laboratory</td>
<td>Oak Ridge, Tennessee, U.S.A.</td>
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<tr>
<td>Lukas Eng</td>
<td>University of Technology</td>
<td>Dresden, Germany</td>
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<tr>
<td>Ricardo Garcia</td>
<td>Instituto de Microelectrónica</td>
<td>CSIC, Madrid, Spain</td>
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<td>Peter Hinterdorfer</td>
<td>University of Linz</td>
<td>Linz, Austria</td>
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<td>Heinrich Hörber</td>
<td>University of Bristol</td>
<td>Bristol, United Kingdom</td>
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<tr>
<td>Haiwon Lee</td>
<td>Hanyang University</td>
<td>Seoul, South Korea</td>
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<tr>
<td>Zoya Leonenko</td>
<td>University of Waterloo</td>
<td>Waterloo, Ontario, Canada</td>
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<td>Stuart Lindsay</td>
<td>Arizona State University</td>
<td>Phoenix, Arizona, U.S.A.</td>
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<td>Mervyn Miles</td>
<td>University of Bristol</td>
<td>Bristol, United Kingdom</td>
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<td>Pierre Emmanuel Milhiet</td>
<td>University of Montpellier</td>
<td>INSERM, Montpellier, France</td>
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<tr>
<td>Takuji Takahashi</td>
<td>University of Tokyo</td>
<td>Bunkyo, Tokyo, Japan</td>
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<tr>
<td>Tatsuo Ushiki</td>
<td>Niigata University</td>
<td>Niigata, Niigata, Japan</td>
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<tr>
<td>Li-Jun Wan</td>
<td>Chinese Academy of Sciences</td>
<td>Beijing, China</td>
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<tr>
<td>Time</td>
<td>Saturday, June 16th</td>
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<td>7:30 AM – 9:00 AM</td>
<td>Breakfast</td>
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<td>9:00 AM – 9:15 AM</td>
<td>Opening Remarks</td>
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<td>Novel Developments in SPM Techniques: Theory,</td>
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<td>Instrumentation &amp; Applications</td>
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<td>Thomas Thundat (Invited)</td>
<td>Peter Grutter (Invited)</td>
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<td>10:15 AM – 10:45 AM</td>
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<td>10:45 AM – 12:30 PM</td>
<td><strong>SESSION B</strong></td>
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<td>SPM Applications in Bionanotechnology &amp; Medicine</td>
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<td>Christoph Gerber (Keynote)</td>
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<td>2:00 PM – 3:30 PM</td>
<td><strong>SESSION C</strong></td>
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<td>Novel Developments in SPM</td>
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<td>Techniques: STM to Study Molecular Processes</td>
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<td>3:30 PM – 4:00 PM</td>
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<td>4:00 PM – 5:00 PM</td>
<td><strong>SESSION D</strong></td>
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<td>Novel Developments in SPM</td>
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<td>in Applications to Life Sciences, including High Speed,</td>
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<td>High Resolution AFM</td>
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<td>Toshio Ando (Invited)</td>
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<td>5:00 PM – 7:00 PM</td>
<td>Poster Session, Reception &amp; Exhibits</td>
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<td>5:15 PM – 6:15 PM</td>
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<td>6:30 PM – 11:00 PM</td>
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DAY 1: Saturday, June 16\textsuperscript{th}, 2012 (Sessions A, B, C, D)

9:00AM – 9:15AM OPENING REMARKS
Local Organizing Committee:
Zoya Leonenko (Chair), University of Waterloo; John Dutcher, University of Guelph; Cynthia Goh, University of Toronto; Peter Grutter, McGill University; Gilbert Walker, University of Toronto

9:15AM – 10:15AM SESSION A Chair: Gilbert Walker
Novel Developments in SPM Techniques: Theory, Instrumentation, and Applications

Markus Raschke (Invited)
University of Colorado, Colorado, United States of America

9:45AM – 10:00AM Nanoscale Infrared Spectroscopy with the AFM
Craig Prater, Michael Lo, Qichi Hu, Roshan Shetty, Curtis Marcott, Bruce Chase, Alexandre Dazzi, and Kevin Kjoller
Anasys Instruments, California, United States of America

10:00AM – 10:15AM Imaging Surface Polarization Patterns at GHz Frequencies
M. Yahyaie, D. A. Buchanan, G. E. Bridges, D. J. Thomson, and D. R. Oliver
University of Manitoba, Manitoba, Canada

10:15AM – 10:45AM COFFEE BREAK & EXHIBITS

10:45AM – 12:30PM SESSION B Chair: Zoya Leonenko
SPM Applications in Bionanotechnology and Medicine

10:45AM – 11:30AM Towards Personalized Medical Diagnostics Based on Nanomechanics
Christoph Gerber (Keynote)
University of Basel, Basel, Switzerland
11:30AM – 11:45AM  Electrochemically Controlled Microcantilever Biosensor
Y. Nagai, M. H. Izadi, J. Dulanto-Carbajal, R. B. Lennox, R. Sladek, and P. Grutter
McGill University, Quebec, Canada

11:45AM – 12:00PM  Nanocomposite Scaffolds for Bone Tissue Engineering Based on Degradable Polymers and Bioceramic, Study of Structure and Effect on Living Cell Lines
Michal J. Wozniak, Wojciech Swieszkowski, and Krzysztof J. Kurzydlowski
Warsaw University of Technology, Warsaw, Poland

12:00PM – 12:15PM  Imaging, Compressing and Connecting Neurons with AFM
Peter Grutter
McGill University, Quebec, Canada

12:15PM – 12:30PM  Unravelling the Collagen Network of the Arterial Wall
Jan-Willem M. Beenakker, Brian A. Ashcroft, Jan. H. Lindeman, and Tjerk H. Oosterkamp
Leiden University, Leiden, The Netherlands

12:30PM – 2:00PM  LUNCH

2:00PM – 3:30PM  SESSION C  Chair: Peter Grutter
Novel Developments in SPM Techniques: STM to Study Molecular Processes

2:00PM – 2:30PM  The Dynamics of Reaction at Surfaces, Studied A-Molecule-At-A-Time by STM
John Polanyi (Invited)
University of Toronto, Ontario, Canada

2:30PM – 2:45PM  Real Time Monitoring Single-Molecule Binding Reactions on DNA Origami
Wu Na and Li Bin
Chinese Academy of Sciences, Shanghai, China

2:45PM – 3:00PM  Electron Transport in a Single Redox Protein Molecule Measured Using Scanning Tunnelling Microscopy
Eduardo Antonio Della Pia, Martin Elliott, D. Dafydd Jones, and J. Emyr Macdonald
Cardiff University, Cardiff, United Kingdom
3:00PM – 3:15PM  Photo-Induced Current Spectra on InAs Wires Measured by Dual Light Illumination Method in STM
Shuichi Katsui and Takuji Takahashi
University of Tokyo, Tokyo, Japan

3:15PM – 3:30PM  Revealing the Intermolecular Coupling in Vanadyl-Phthalocyanine (VOPc) Molecular Bilayers
Weiguang Xie, Xiaomu Wang, and Jianbin Xu
The Chinese University of Hong Kong, Hong Kong SAR, China

3:30PM – 4:00PM  COFFEE BREAK & EXHIBITS

4:00PM – 5:00PM  SESSION D  Chair: Mervyn Miles
Novel Developments in SPM in Applications to Life Sciences, Including High Speed, High Resolution AFM

4:00PM – 4:30PM  High-Speed Atomic Force Microscopy for Biology
Toshio Ando, Takayuki Uchihashi, Noriyuki Kodera (Invited)
Kanazawa University, Ishikawa, Japan

4:30PM – 4:45PM  Force-Feedback High-Speed Atomic Force Microscope for Studying Large Biological Systems
Byung I. Kim and Ryan D. Boehm
Boise State University, Idaho, United States of America

4:45PM – 5:00PM  True Molecular Resolution Studies of Soft and Biological Samples in Ambient Conditions Using Torsional Tapping Atomic Force Microscopy
Nic Mullin and Jamie K. Hobbs
University of Sheffield, Sheffield, United Kingdom

5:00PM – 7:00PM  POSTER SESSION, RECEPTION & EXHIBITS
DAY 2: Sunday, June 17th, 2012 (Sessions E, F, G, H)

9:00AM – 10:30AM  SESSION E  Chair: Eric Finot

Novel Developments in SPM Techniques: Theory, Instrumentation, and Applications

9:00AM – 9:30AM  Photothermal Cantilever Deflection Spectroscopy
Thomas Thundat (Invited), Ali Passian, and Laurene Tetard
University of Alberta, Alberta, Canada

9:30AM – 9:45AM  Chip-Scaled Multi-Mode Scanning Probe Microscopes
Neil Sarkar, Raafat Mansour, and Kyle Trainor
University of Waterloo, Ontario, Canada

9:45AM – 10:00AM  MEMs Z-Scanners as Fast Add-On in Scanning Tunneling Microscopy
F. C. Tabak, H. Borsboom, P. C. van der Tuijn, J. W. M. Frenken, and W. M. van Spengen
Leiden University, Leiden, The Netherlands

10:00AM – 10:15AM  Oxidation-Induced Strain Mapping Using Nanogauges
Eric Finot, A. Clair, and M. Foucault
University of Burgundy, Dijon, France

10:15AM – 10:30AM  Quantifying Nanomechanical Properties with Simultaneous AM-FM and Tanδ Imaging
Keith Jones, Roger Proksch, Irène Revenko, Nick Geisse, Amir Moshar, Sophia Hohlbach, Deron Walters, Jason Cleveland, Jason Bemis, and Clint Callahan
Asylum Research, California, United States of America

10:30AM – 11:00AM  COFFEE BREAK & EXHIBITS

11:00AM – 12:30PM  SESSION F  Chair: Zoya Leonenko

SPM Applications in Biophysics and Life Sciences, Including High Speed, High Resolution AFM

11:00AM – 11:30AM  High Resolution AFM Monitors Dynamic Membrane Protein Interaction and Assembly at High Speed
Simon Scheuring (Invited), Ignacio Casuso, Adai Colom, and Mohamed Husain
Aix-Marseille University, Marseille, France
11:30AM – 11:45AM  Nanoscale Electrostatic Domains in Cholesterol-Enriched DOPC Lipid Membrane Create a Target for Amyloid Binding. AFM and FM-KPFM Study.
Elizabeth Drolle, Ravi Gaikwad, Zoya Leonenko
University of Waterloo, Ontario, Canada

11:45AM – 12:00PM  Interactions Between Lytic Peptide Latarcin 2a and Supported Lipid Bilayers Studied by In Situ Atomic Force Microscopy
Amy Won, Annamaria Ruscito, and Anatoli Ianoul
Carleton University, Ontario, Canada

12:00PM – 12:15PM  Surface-Bound Proteins on Different Surfaces: Effects of Hydrophobicity and Curvature
Martin Kurylowicz, Joshua Mogyoros, Hilary Paulin, Maximiliano Giuliani, and John R. Dutcher
University of Guelph, Ontario, Canada

Seonghoon Lee, Aee-Young Park, Yeon-Su Chae, Seung-Hee Lee, and Bong-Kiun Kaang
Seoul National University, Seoul, Republic of Korea

2:00PM – 3:15PM  SESSION G   Chair: Peter Grutter
Novel Developments in SPM Techniques: Kelvin Probe Force Microscopy

2:00PM – 2:30PM  Photo-Assisted Kelvin Probe Microscopy on Cu(In,Ga)Se₂ Solar Cells
Yu Nakajima, Masaki Takihara, Takashi Minemoto, and Takuji Takahashi (Invited)
The University of Tokyo, Tokyo, Japan

2:30PM – 2:45PM  Measurement of Corrosion Potential (Ecorr) by Scanning Kelvin Probe Force Microscopy (SKPFM)
M. B. Cook, Z. Barrett, S. B. Lyon, H. N. McMurray, J. Walton, and G. Williams
The University of Manchester, Manchester, United Kingdom
2:45PM – 3:00PM  
**Distinguishing Magnetic and Electrostatic Interactions by a Kelvin Probe Force Microscopy-Magnetic Force Microscopy Combination**
Autonomous University of Madrid, Madrid, Spain

3:00PM – 3:15PM  
**Frequency Modulated Kelvin Probe Force Microscopy to Study Lipid Monolayers**
Ravi Gaikwad, Elizabeth Drolle, and Zoya Leonenko  
University of Waterloo, Ontario, Canada

3:15PM – 3:45PM  
**COFFEE BREAK & EXHIBITS**

3:45PM – 5:15PM  
**SESSION H  
Chair: Chanmin Su**
**Novel Developments in SPM Techniques: Dynamic Force Microscopy**

3:45PM – 4:15PM  
**The Emergence of Multifrequency Force Microscopy**
Ricardo Garcia (Invited)  
CSIC, Spanish National Research Council, Madrid, Spain

4:15PM – 4:30PM  
**Atomic Imaging with Peak Force Tapping**
Chanmin Su, B. Pittenger, Y. Hu, and S. C. Minne  
Bruker AFM, California, United States of America

4:30PM – 4:45PM  
**Structural Flexibility Mapping by Bimodal Atomic Force Microscopy in Liquids**
E. T. Herruzo and R. Garcia  
CSIC, Spanish National Research Council, Madrid, Spain

4:45PM – 5:00PM  
**Noise in AM-Dynamic Scanning Force Microscopy**
Jaime Colchero and Juan Francisco Martinez  
University of Murcia, Murcia, Spain

5:00PM – 5:15PM  
**Drive-Amplitude-Modulation Atomic Force Microscopy. A Method for All Environments.**
M. Jaafar, D. Martinez-Martin, M. Cuenca, J. Melcher, A. Raman, and J. Gómez-Herrero  
Autonomous University of Madrid, Madrid, Spain

5:15PM – 6:15PM  
**EXHIBITS**
6:30PM – 7:00PM   BOARDING FOR DINNER CRUISE
7:00PM – 11:00PM   CONFERENCE DINNER CRUISE

DINNER BOAT CRUISE: OBSESSION III

IMPORTANT REMINDERS:

- Boarding starts at 6:30PM on the boat – Obsession III
- Obsession III will leave by 7:00PM, at which time dinner will commence
- The walk to the boat from Westin Harbour Castle is approximately 10-15 minutes
  - Please see the map on the next page for directions
DAY 3: Monday, June 18th, 2012 (Sessions I, J, K, L)

9:00AM – 10:30AM  SESSION I  Chair: Emily Cranston
SPM Developments and Applications in Nanotechnology

9:00AM – 9:30AM  Energy Level Spectroscopy Using AFM Techniques
Yoichi Miyahara, L. Cockins, A. Roy-Gobell, and Peter Grutter
(Invited)
McGill University, Quebec, Canada

9:30AM – 9:45AM  Force-Distance Curves to Measure Nanoparticle Surface Charge Density in Aqueous Media
Steven J. Eppell and Fredy R. Zypman
Case Western Reserve University, Ohio, United States of America

9:45AM – 10:00AM  Nanotribology of Protic Ionic Liquids Using Colloidal-Probe AFM: Green Lubricants for Micro-/Nano-Electromechanical Devices
Emily D. Cranston, Oliver Werzer, Rubén Álvarez, Rob Atkin, and Mark W. Rutland
McMaster University, Ontario, Canada

10:00AM – 10:15AM  Finite Element Modelling of EFM Signals in Presence of Nano-Objects Buried Inside Dielectric Samples
Richard Arinero, Clément Riedel, and Cathy Guasch
University of Montpellier, Hérault, France

10:15AM – 10:30AM  Construction of 2D Nanoporous Networks on Surface: From Weak Intermolecular Interactions to Covalent Bonding
Dong Wang, Jia Liu, Cui-Zhong Guan, Li-Jun Wan
Chinese Academy of Sciences, Beijing, China

10:30AM – 11:00AM  COFFEE BREAK & EXHIBITS

11:00AM – 12:30PM  SESSION J  Chair: John Dutcher & Gilbert Walker
SPM Applications in Biophysics and Life Sciences, Including Force Measurements

11:00AM – 11:30AM  Nano-Mechanics of Biomaterials with AFM
Igor Sokolov, Maxim Dokukin, and Nataliia Guz (Invited)
Clarkson University, New York, United States of America
11:30AM – 11:45AM Atomic Force Microscopy Study of Changes to the Mechanical Properties of *Pseudomonas aeruginosa* Cells Induced by Antimicrobial Peptides
Shun Lu and John R. Dutcher
University of Guelph, Ontario, Canada

11:45AM – 12:00PM Physico-Mechanical Characterization of Microbial Cell Surfaces by Atomic Force Microscopy
Lana Norman, Hashem Etayash, Sanjiv Shrivastava, Kamaljit Kaur, and Thomas Thundat
University of Alberta, Alberta, Canada

12:00PM – 12:15PM Single Polymer Studies of Hydrophobic Hydration
Isaac T. S. Li and Gilbert Walker
University of Toronto, Ontario, Canada

12:15PM – 12:30PM Dynamic AFM Mechanical Property Measurements of Live Single Cells Under Changing Physiological Conditions
Shraddha Avasthy, Mary E. Brown, Yoshiki Ishikawa, Gajendra S. Shekhawat, Joe G. N. Garcia, Steven M. Dudek, and Vinayak P. Dravid
Northwestern University, Illinois, United States of America

12:30PM – 2:00PM LUNCH

2:00PM – 3:45PM SESSION K Chair: Piotr Pieta
Novel Developments in SPM Techniques: STM and Electrochemical SPM

2:00PM – 2:30PM Molecular Reaction and Resulting Assembly in Chemical Environment Investigated by STM
Li-Jun Wan (Invited)
Chinese Academy of Sciences, Beijing, China

2:30PM – 2:45PM Direct Visualization of the Alamethicin Pore Formed in a Planar Phospholipids Matrix
Piotr Pieta and Jacek Lipkowski
University of Guelph, Ontario, Canada

2:45PM – 3:00PM Structure and Dynamics of Thiolated Lipid Films of Au(111)
Sławomir Sek
University of Warsaw, Warsaw, Poland
3:00PM – 3:15PM  Monolayer Assembly of Polyaromatics by Shear-Induced Alignment and by Electrical Stimuli  
Chun-Hsien Chen and Shern-Long Lee  
National Taiwan University, Taipei, Taiwan

3:15PM – 3:30PM  RT-UHV-STM Studies of C₆₀:CuPc Composite Thin Films  
Taylor Stock, Jun Nogami  
University of Toronto, Ontario, Canada

3:30PM – 3:45PM  Chemical Bonding Configurations of Small Bio- and Organic Molecules on Si(111)7x7 and Si(100)2x1 Reconstructed Surfaces Studied by STM and XPS  
L. Zhang, A. Chatterjee, F. R. Rahsepar, and K. T. Leung  
University of Waterloo, Ontario, Canada

3:45PM – 4:00PM  COFFEE BREAK

4:00PM – 5:30PM  SESSION L  Chair: Neil Thomson & Zoya Leonenko  
Novel Developments in SPM Techniques: Probes and Applications

4:00PM – 4:15PM  How Sharp is my AFM Tip?  
Sergio Santos, Li Guang, Tewfik Souier, Karim Gadelrab, Matteo Chiesa, and Neil H. Thomson  
University of Leeds, West Yorkshire, United Kingdom

4:15PM – 4:30PM  Ag₂Ga Nanoneedles for Probes Microscopy Applications  
Romaneh Jalilian, Jose Rivera, Neil Torrez, David Mudd, and Mehdi Yazdanpanah  
NaugaNeedles LLC, Kentucky, United States of America

4:30PM – 4:45PM  Platinum Silicide Probes: A Novel Approach to Manufacture Highly Conductive AFM Probes with Small Radii and High Wear Resistance  
Oliver Krause, Abu Sebastian, Michel Despont  
NanoWorld Services, Erlangen, Germany

4:45PM – 5:00PM  Low-Q Polymer Cantilevers for High-Speed Atomic Force Microscopy  
Jonathan D. Adams, Cyrus K. Rashti, Blake W. Erickson, Jonas Grossenbacher, Maurizio R. Gullo, Jürgen Brugger, Georg E. Fantner  
University of Murcia, Murcia, Spain
5:00PM – 5:15PM  Carbon Nanotube Probes Intake for Scanning Probe Methods: An Update
Sophie Marsaudon, Touati Douar, and Jean-Pierre Aimé
University of Bordeaux, Bordeaux, France

5:15PM – 5:30PM  CLOSING REMARKS
Zoya Leonenko
**LIST OF POSTER ABSTRACTS**

1. **AFM Studies of Solid-Supported Phospholipid Bilayers Formed by Vesicles Fusion**  
   Jan Pawlowski and Slawomir Sek  
   University of Warsaw, Warsaw, Poland

2. **Atomic Force Microscopy Study of Site-Specific Enzyme Action on Native Cellulose Fibers**  
   Amanda Quirk, Jingpeng Wang, Jacek Lipkowski, John Dutcher, Adam Mark, Anthony Clark, and Chris Hill  
   University of Guelph, Ontario, Canada

3. **Atomic Force Spectroscopy to Measure Lateral Compression in Lipid Membrane**  
   Ravi Gaikwad, Victor Malkov, Gilbert Walker, and Zoya Leonenko  
   University of Waterloo, Ontario, Canada

4. **Effect of Small Molecules on Phospholipid Membranes by Atomic Force Spectroscopy**  
   Simon J. Attwood, Youngjik (Vince) Choi, E. Drolle, Ravi Gaikwad, and Zoya Leonenko  
   University of Waterloo, Ontario, Canada

5. **A Kelvin Probe Force Microscopy Study of Lipid Monolayers with Gemini Surfactant**  
   Robert D. E. Henderson, Ravi Gaikwad, Shawn Wettig, and Zoya Leonenko  
   University of Waterloo, Ontario, Canada

6. **Lateral Force Microscopy of the Domain Structure of Tetracene Films**  
   Andrew Tersigni, Detong Jiang, and Xiaorong Qin  
   University of Guelph, Ontario, Canada

7. **Nanostructures in Polymer-Like Amorphous Carbon Thin Films Created by Pulsed Laser Induced Plasma Processing of Frozen Alkanes**  
   University of Waterloo, Ontario, Canada

8. **Naphthalocyanine on Au Surfaces: Adsorption and Structural Formation**  
   Patrick Mehring and Carsten Westphal  
   Technical University of Dortmund, Dortmund, Germany

9. **Quantifying Micromorphology Changes of Macrophage Membrane by Entropy and Fractal Dimension From AFM Images**  
   A. Bitler, R. Dover, and Y. Shai  
   Weizmann Institute of Science, Rehovot, Israel
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<th>Authors</th>
<th>Institution</th>
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<td>10</td>
<td>Real-Time AFM Combined with an Inverted Optical Microscope for Wet Cell Imaging</td>
<td>Yuki Suzuki, Aiko Yoshida, Shuichi Ito, Nobuaki Sakai, Akira Yagi, Yoshitsugu Uekusa, Koichi Karaki, and Kunio Takeyasu</td>
<td>Kyoto University, Kyoto, Japan</td>
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<tr>
<td>11</td>
<td>STM and XPS Study of Growth Evolution of Au Nanodots to Au Silicide Thin Film on Si(111)7x7</td>
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