CMe-BO
Centro di Microscopia Elettronica
Dipartimento di Scienze Biologiche,
Geologiche e Ambientali
Università di Bologna
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CENTRO DI BIOMINERALOGIA
CRISTALLOGRAFIA E
BIOMATERIALI
UNIVERSITÀ DI BOLOGNA

3rd BOLOGNA SPM WORKSHOP

SCANNING PROBE MICROSCOPY AND SPECTROSCOPY FOR MINERAL, BIOLOGICAL AND MATERIAL SCIENCES

July 14, 2017 – Bologna

Dept. of Biological, Geological and Environmental Sciences
University of Bologna, Italy
Aula Magna di Anatomia Comparata, Via Selmi 3, (2° Piano) - Bologna

PROGRAMME

9.50-10.00 Welcome and opening address

Prof. Alessandro Gargini (Head of Dept. BiGeA-UniBo); Giovanni Valdrè (CME-BO/BiGeA-UniBo)

Contributions from University and CNR

10.00-10.20 A. Alessandrini (UniMoRe) - Atomic force microscopy investigation of the mechanical properties of neuroblastoma multiforme cells and their correlation with the migratory potential.

10.20-10.40 G. Zuccheri (UniBo) - Thin polymer layers on surfaces and block-copolymer self-assembly towards nanoelectronics and bioanalytics.

10.40-11.00 V. Palermo (ISOF-CNR) – Image processing of SPM data. A tool for metrology of graphene and other 2D materials.

11.00-11.20 G. Bussetti, R. Yivlialin, A. Li Bassi, C. S. Casari, M. Passoni, C. Castiglioni, M. Tommasini, L. Brambilla, L. Magagnin, A. Bossi, M. Penconi, M. Finazzi, F. Ciccacci and L. Duò (Politecnico di Milano) - Anion intercalation in graphite. Electrode evolution vs surface protection studied by a combined electrochemical scanning probe microscopy investigation.

11.20-11.40 C. Albonetti (ISMN-CNR, BO) - Organic islands growth on SiO_2 surfaces as observed by SPM.

Innovations in Scanning Probe Microscopy:

11.40-13.20 Contributions from the companies (Morning session)

11.40-12.00 Bruker - M. Febvre: *SPM High resolution, Nanomechanics and nano-surface chemistry (Nano Raman, Nano IR).*

12.00-12.20 Gambetti Kenologia (Park) - S. Alberici: *Scanning Ion Conductance Microscopy (SICM) Technology and Its Application.*

12.20-12.40 Oxford Instruments/Asylum Research - J. Lopez: *Full-Featured Video-Rate AFM.*

12.40-13.00 Pra.Ma. (NT-MTD) - D. Kazantsev, V. Polyakov, S. Lemeshko, E. Kazantseva: *Material contrast mapping with nanometer resolution by Apertureless Scanning Near-Field Microscopy.*

13.00-13.20 Biofotonica (JPK) – P. Antonucci: *AFM for tissues and cells investigation in medical field: technology and results.*

La partecipazione al workshop è gratuita ed è aperta a tutti (laureandi, dottorandi, ricercatori, tecnici, professionisti, ecc.)

Per registrarsi al Workshop inviare una mail di conferma a:
giovanni.valdre@unibo.it

13.20-14.40 Lunch Break

14.40-16.20 Contributions from the companies (Afternoon session)

14.40-15.00 Assing - S. Chiesa: *Complementary Techniques for Measuring Surface Mechanical Properties at the Micro and Nanoscale*.

15.00-15.20 LOT-QuantumDesign/Nanosurf – S. Schutzmann: *Beyond AFM: Advanced Nanotechnology Tools for Materials and Life Sciences*.

15.20-15.40 Keysight Technologies/Agilent – S. Pergolini: *New developments in AFM Technology and in the Electrical Characterization of Surfaces at the Nanoscale*.

15.40-16.00 Elbatech – M. Sartore: *From Internet- of -Things to Laboratory tool.*

16.00-16.20 Schaefer South-East Europe/CSInstruments – P. Martinez: *Advanced AFM electrical nanocharacterization of 2-D materials and semiconductors*.

16.20-16.40 – Coffee Break

Contributions from University

16.40-17.00 M. Marcaccio, S. Rapino (Ciamician-UniBo) – Probing Biological Systems and Nanostructured Materials by Scanning Electrochemical Microscopy.

17.00-17.20 T. Cramer, B. Fraboni (UniBo) - Atomic Force Microscopies to Study Electronic Properties and Strain in Thin Films for Flexible Electronics.

17.20-17.40 A. Simonelli, D. Moro, G. Ulian, G. Valdrè (BiGeA-UniBo) – Finite element analysis of probe-specimen interaction in SPM.

17.40 Concluding remarks

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