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Sala dei Notari

Piazza IV Novembre, 1- 06123 Perugia

June, 14-16 2023

CONFERENCE PROGRAM

Wednesday, 14 June 2023

13:30 – 14:30 Registration

14:30 Opening Ceremony

Afternoon Session 15:00-16:30 Session I

chair: Matteo Tommasini PoliMI (IT)

15:00 Mid-Infrared Photonics: From Emerging Tool to Enabling Technology Prof. Boris Mizaikoff – Ulm University (DE)

15:45 «A systematic study of protein-fiber interaction in asbestos body model using FTIR microscopy and IR nanoscopy» Martina Zangari – UNITS (IT)

16:00 «Charge Instability in Multimodular Push-Pull Systems: Excited-State Symmetry Breaking under the gaze of Ultrafast Time-Resolved Infrared Spectroscopy» Tommaso Bianconi – UNIPG(IT)

16:15 «Doping of P₃HT electrospun fibers: monitoring through infrared (IRAV) and Raman (RaAV) polaronic features» Alessia Arrigoni – PoliMI (IT)

16:30 – 17:00 Coffee break

Afternoon Session 17:00-18:30 Session II

chair: Maurizio Becucci UniFI (IT)

17:00 «Solid state effects on the vibrational spectra of the β phase of polyvinylidene fluoride» Gianluca Serra – PoliMI (IT)

17:15 «Raman spectroscopy for combustion gas diagnostic» Riccardo Dal Moro – UNIPD(IT)

17:30 «Hydration water and ionic aggregation in aqueous solutions of imidazolium based ionic liquids by UV Resonance Raman» Fatima Matroodi – Elettra Synchrotrone (IT)

17:45 «Huge Raman intensity due to intra-molecular charge oscillation in BEDT-TTF₂₊ dimerized salts» Alberto Girlando – UNIPR(IT)

18:00 «Investigating Perampanel drug by DFT and Raman Spectroscopy» Chiara Picarelli – PoliMI (IT)

18:15 «Raman gas spectroscopy for biological survey» Daniele Barbiero – UNIPD(IT)

18:30-20:00 Poster session

Thursday, 15 June 2023

Morning Session 09:00-10:30 Session I

chair: Ivano Alessandri UniBS (IT)

09:00 Colloidal Synthesis and Applications of Plasmonic Nanoparticles Prof. Giuseppe Compagnini – UNICT(IT)

9:45 «Solid SERS substrates for water pollution monitoring» Benedetta Albini – UNIPV (IT)

10:00 «In-situ Raman-based probes explore the formation of polyynes by pulsed laser ablation in liquid» Pietro Marabotti – PoliMI (IT)

10:15 «Molecular beacon decorated SERS nanosensor for quantitative detection of miRNA» Martina Banchelli – CNR (IT)

10:30 – 11:00 Coffee break

Morning Session: 11:00-13:00 Session II

chair: Silvia Caponi IOM-CNR (IT)

11:00 Novel approaches to broadband coherent Raman microscopy Prof. Giulio Cerullo – PoliMI (IT)

11:45 «Strain characterization in SiGe epitaxial samples by Tip-Enhanced Raman Spectroscopy» Giancarlo La Penna – La Sapienza (IT)

12:00 «THz Raman spectroscopy to investigate structural order and polymorphism in charge transfer cocrystals» Elena Ferrarini – IMEM, CNR (IT)

12:15 «Sub-Micron Simultaneous IR + Raman Microscopy with Co-Located Fluorescence Imaging: Advances in Spatial Resolution, Sensitivity & Tri-modality (IR, Raman & Fluorescence)» Mustafa Kansiz – Photothermal Spectroscopy Corp. (USA)

12:30 «Raman characterization of Ga₂O₃ thin-films: a key tool for the study of different phases and crystalline properties» Giulia Spaggiari – UNIPR(IT)

12:45 «Mode softening driven bilayer to monolayer phase transition in Ph-BTBT-10 organic semiconductor» Tommaso Salzillo – UNIBO(IT)

13:00-14:30 Lunch

Afternoon Session 14:30-16:30 Session I

chair: Giuseppe Compagnini UniCT (IT)

14:30 Advances in FTIR Spectroscopic Imaging Prof. Sergei Kazarian (UK)

15:15 «Vibrational spectroscopy techniques for the study of cardiorenal syndrome» Sara Stefani – UNIPG (IT)

15:30 «IR characterization of thin silica film» Brenda Bracco – UNIPG (IT)

15:45 «Amyloid and Non-Amyloid Aggregation of β -Lactoglobulin in Self-Crowded Regime» Sara Venturi – LENS (IT)

16:00 «Raman spectroscopy for the biochemical characterization of extracellular vesicles as nanotherapeutics and clinical biomarkers» Alice Gualerzi – Don Gnocchi (IT)

16:15 «New findings from UV Resonance Raman RNA investigations: sperm-cells RNA analysis of nucleotides/drugs interactions in SARS-CoV-2 RNA G-quadruplex.» Francesco D'Amico – ELETTRA (IT)

16:30 – 17:00 Coffee break

17:30 Social Event: PERUGIA UNDERGROUND TOUR

20:30 SOCIAL DINNER at "RISTORANTE DEL SOLE"

Friday, 16 June 2023

Morning Session 09:00-10:30 Session I

chair: Francesca Palombo Exeter University (UK)

09:00 Uncovering hidden dynamic structure in biological systems using Brillouin Light Scattering Microspectroscopy Prof. Kareem Elsayad – Vienna Biocenter Core Facilities (AT)

9:45 «Correlative Raman and Brillouin analysis for the mechanical and chemical characterization at nano and micro-scale» Silvia Caponi – IOM-CNR (IT)

10:00 «The influence of Piezo₁ on Cell Mechanics investigated by correlative Brillouin and Raman Microscopy» Alessandra Anna Passeri – UNIPG (IT)

10:15 «Studying anisotropic and porous materials with Brillouin light scattering» Caterina Czibula – Graz University (AT)

10:30 – 11:00 Coffee break

Morning Session 11:00-13:00 Session II

chair: Francesca Rosi SCITEC-CNR (IT)

11:00 Vibrational spectroscopy for the study of cultural heritage materials: recent developments in hyperspectral macro imaging Prof. Costanza Miliani – PoliMI (IT)

11:45 «Identification of dyes and pigments in artwork by Raman/SERS and agar gel microextraction: new applications and advances.» Maurizio Becucci – UniFI (IT)

12:00 «Assessing surface and sub-surface modifications of chemical and mechanical properties of ABS items in cultural heritage by a non-invasive analytical approach» Irene Bargagli – UniPG(IT)

12:15 «Reflection Infrared Spectroscopy: a promising tool to monitor the degradation state of paintings containing emerald green» Sara Carboni Marri – UniPG(IT)

12:30 «Tourmalines analysis with portable Raman for in-situ application» Lorenzo Pasetti – UNIPR(IT)

12:45 «Raman Spectroscopy on salivary samples: a new approach for diseases diagnosis» Luana Forleo – Don Gnocchi (IT)

13:00-14:30 Lunch

Afternoon Session 14:30-15:15 Session I

chair: Stefano Giovagnoli (UNIPG)

14:30 «Structure and properties of grafted silk fibroin fibers for biomedical applications» Michele Di Foggia – UniBO (IT)

14:45 «Ferrous iron insertion in coproporphyrin ferrochelatase from the *Listeria monocytogenes* bacterium» Federico Sebastiani – UniFI (IT)

15:15 VISPEC general assembly and CLOSING CEREMONY