# PAST, PRESENT AND FUTURE OF INORGANIC CHEMISTRY IN ITALY: A PATH DEFINED BY THE WINNERS OF THE NASINI PRIZE

#### February, Monday 11, 2019

Chairman: Arlette ITKEN-FUDER (Associate Editor of EurJIC) and Alceo MACCHIONI (Guest Editor of EurJIC Virtual Issue on Nasini Prize Winners)

- 10:15 10:25 Opening: Massimo INGUSCIO, University of Firenze, President of CNR
- 10:25 10:40 Alceo MACCHIONI, University of Perugia: "Raffaello Nasini: An Eclectic Chemist Heralding the Interdisciplinary Essence of Inorganic Chemistry"
- 10:40 11:00 Marco BELLA, University of Roma La Sapienza, Member of the Italian Parliament, "VII COMMISSIONE (CULTURA, SCIENZA E ISTRUZIONE)"

# Advanced Techniques and Methodologies in Inorganic Chemistry

- Chairman: Francesco FANIZZI (President of the Division of Inorganic Chemistry of the Italian Chemical Society)
- 11:00 11:20 Dario BRAGA, University of Bologna: "Organic-Inorganic Ionic Co-Crystals: A New Class of Multipurpose Compounds"
- 11:20 11:40 Maurizio CASARIN, University of Padova: "A comparative experimental and theoretical study of the Fe  $L_{2,3}$ -edges XAS in three highly popular, low spin, organoiron complexes: [Fe(CO)<sub>5</sub>], [( $\eta^5$ -C<sub>5</sub>H<sub>5</sub>)Fe(CO)( $\mu$ -CO)]<sub>2</sub> and [( $\eta^5$ -C<sub>5</sub>H<sub>5</sub>)<sub>2</sub>Fe]"
- 11:40 12:00 Claudio LUCHINAT, University of Firenze: "NMR and metal ions in life sciences"
- 12:00 12:20 Fabrizia GREPIONI, University of Bologna: "Light interactions in crystals for interactions with light"
- 12:20 12:40 Norberto MASCIOCCHI, University of Insubria: "When Crystals go Nano. The Role of Advanced X-ray Total Scattering Methods in Nanotechnology"
- 12:40 13:00 Lucia BANCI, University of Firenze: "Metal transport in the cell"
- 13:00 14:00 Lunch

#### New Inorganic Complexes, Clusters and Reactions

Chairman: Adriana SACCONE

- 14:00 14:20 Enzo ALESSIO, University of Trieste: "The Pivotal Role of Ru-dmso Compounds in the Discovery of Well-Behaved Precursors"
- 14:20 14:40 Fabio MARCHETTI, University of Pisa: "*The* [*Fe*<sub>2</sub>*Cp*<sub>2</sub>(*CO*)<sub>2</sub>] frame as a versatile scaffold to build uncommon organic architectures and cytotoxic compounds"
- 14:40 15:00 Rinaldo POLI, University of Toulouse: "Weak metal-carbon bonds as robust mediators for a controlled radical polymerization of less activated monomers"
- 15:00 15:20 Stefano ZACCHINI, University of Bologna: "From Chini clusters to molecular metal carbonyl nanoclusters: an organometallic approach to metal nanoparticles"

#### Innovative Inorganic (Nano)Materials

Chairman: Mario CHIESA

- 15:20 15:40 Roberta SESSOLI, University of Firenze: "Magnetic molecules for the second quantum revolution"
- 15:40 16:00 Maurizio PERUZZINI, DSCTM CNR: "White, Red and Black: Playing with Phosphorus Allotropes from Organometallic Chemistry to Innovative Materials"
- 16:00 16:20 Claudio PETTINARI, University of Camerino: "Coordination Polymers and Metal-Organic Frameworks: Future Materials?"

16:20 - 17:00 TEA BREAK

- 17:00 17:20 Piersandro PALLAVICINI, University of Pavia: "Noble metal nanoparticles for photothermally responsive surfaces"
- 17:20 17:40 Silvia ORLANDUCCI, University of Roma Tor Vergata: "Gold decorated Nanodiamond a powerful multifunctional materials from sensing, imaging, diagnostic and therapy"
- 17:40 18:00 Andrea CORNIA, University of Modena and Reggio Emilia: "Forging molecular nanomagnets: a journey from crystals to addressable single molecules"
- 18:00 18:20 Matteo MANNINI, University of Firenze: "Molecular magnetism goes nano"
- 18:20 18:40 Cristiana DI VALENTIN, University of Milano-Bicocca: "Modelling Stimuli-Responsive Nanomaterials for Biomedical Applications"

20:30 DINNER

February, Tuesday 12, 2019

- Chairman: Francesco FANIZZI (President of the Division of Inorganic Chemistry of the Italian Chemical Society)
- 9:00 9:30 Roberto PURRELLO, University of Catania and CUN

# **Inorganic Chemistry for Catalysis**

Chairman: Emma GALLO

- 9:30 9:50 Gianfranco PACCHIONI, University of Milano-Bicocca: "*Electronic structure theory in catalysis: concepts, examples, and perspectives*"
- 9:50 10:10 Paolo FORNASIERO, University of Trieste: "*Towards rational heterogeneous catalyst design*"
- 10:10 10:30 Stefano AGNOLI, University of Padova: "A surface science approach to electrocatalytic processes"

10:30 - 10:50 COFFEE BREAK

# Inorganic Chemistry for Energy

Chairman: Tiziana MARINO

- 10:50 11:10 Alberto CREDI, University of Bologna: "Supramolecular approaches to nanoscale machines, motors and materials operated by light"
- 11:10 11:30 Sebastiano CAMPAGNA, University of Messina: *"Functional chromophore-catalysts assemblies for photoinduced water oxidation"*
- 11:30 11:50 Filippo DE ANGELIS, CNR-ISTM of Perugia: "*The transition from dye-sensitized* to perovskite solar cells: Challenges for modelling"
- 11:50 12:10 Giacomo BERGAMINI, University of Bologna: "*Light: a peculiar tool to investigate and operate supramolecular systems*"
- 12:10 12:30 Alceo MACCHIONI, University of Perugia: "The Middle-Earth between Homogeneous and Heterogeneous Catalysis in Water Oxidation with Iridium"
- 12:30 15:00 Lunch

# **Bioinorganic and Medicinal Chemistry**

Chairman: Michele SAVIANO

- 15:00 15:20 Silvio AIME, University of Torino: "New routes in the design of MRI reporters"
- 15:20 15:40 Mauro BOTTA, University of Piemonte Orientale: "*Enhancing the Sensitivity of Gd-based Nanoparticles as MRI Probes*"
- 15:40 16:00 Antonio ROSATO, University of Firenze: "Bioinformatics of Metalloproteins"
- 16:00 16:20 Paola TURANO, University of Firenze: "Integrated structural biology of iron biomineralization in the ferritin nanocage"
- 16:20 16:40 Concluding Remarks