



GIRSE Workshop & NIS Colloquium

EPR in Catalysis: from Models to Real Systems

Torino, **November 26th-27th 2015**, Aula Magna, Corso Massimo D'Azeglio 52

GIRSE Workshops are intended to be informal and high profile thematic discussion meetings aimed at highlighting the role and potential of Electron Paramagnetic Resonance spectroscopy across different disciplines. This first meeting, devoted to catalysis, is organized within the frame of NIS Colloquia a series of scientific meetings at the cross roads between surface chemistry and catalysis.

PROGRAM

Thursday 26th November, 2015

14:30 OPENING

14:40-15:25 **Rebecca POGNI** "EPR in enzymatic catalysis: the case study of oxidoreductases" *Università di Siena, Siena, Italy*

15:25-15:45 **Donatella CARBONERA** "Probing the environment of the [4Fe4S] cluster of the hydrogenase maturation protein HydF from *Thermotoga neapolitana* by advanced EPR spectroscopies: insights into the catalytic mechanism" *Università di Padova, Padova, Italy*

15:45-16:15 Coffee break

16:15-17:00 **Angelika BRÜKNER** "Operando EPR - A versatile tool to unravel electron transfer in catalytic redox cycles" *Leibniz-Institut für Katalyse, Rostock, Germany*

17:00-17:20 **Massimiliano D'ARIENZO** "Crystal surfaces and fate of photogenerated defects in shape controlled TiO₂ nanocrystals: drawing useful relations to upgrade the photocatalytic properties" *Università di Milano Bicocca, Milano, Italy*

17:20-17:40 **Chiara GIONCO** "New oxide-based photoactive materials for solar energy applications" *Università di Torino, Torino, Italy*

20:00 Social dinner

Friday 27th November, 2015

09:00-9:45 **Damien MURPHY** "Exploring outer sphere interactions in paramagnetic transition metal complexes by ENDOR spectroscopy." *Cardiff University, Cardiff, UK*

9:45-10:05 **Elena MORRA** "Probing the Nature of Ti³⁺ Centres in Heterogeneous Ziegler-Natta Catalysts. The role of hyperfine techniques" *Università di Torino, Torino, Italy*

10:05-10:50 **Zbigniew SOJKA** "Insight into the mechanistic steps of SCR reaction over Co and Ni metallozeolites by EPR/HYSCORE techniques combined with DRIFT operando and DFT investigations" *Jagiellonian University, Krakow, Poland*

10:50-11:20 Coffee break

11:20-11:40 **Marta MORENO** "In situ EPR studies on Cu-Zeolites as catalysts for the elimination of atmospheric contaminants" *Instituto de Tecnología Química (UPV-CSIC), Valencia, Spain.*

11:40-12:25 **Gianfranco PACCHIONI** "Theory of magnetic impurities in oxides. A pragmatic approach to a complex problem" *Università di Milano Bicocca, Milano, Italy*

12:30 Conclusive remarks

Registration is free but requested

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