



CHASS



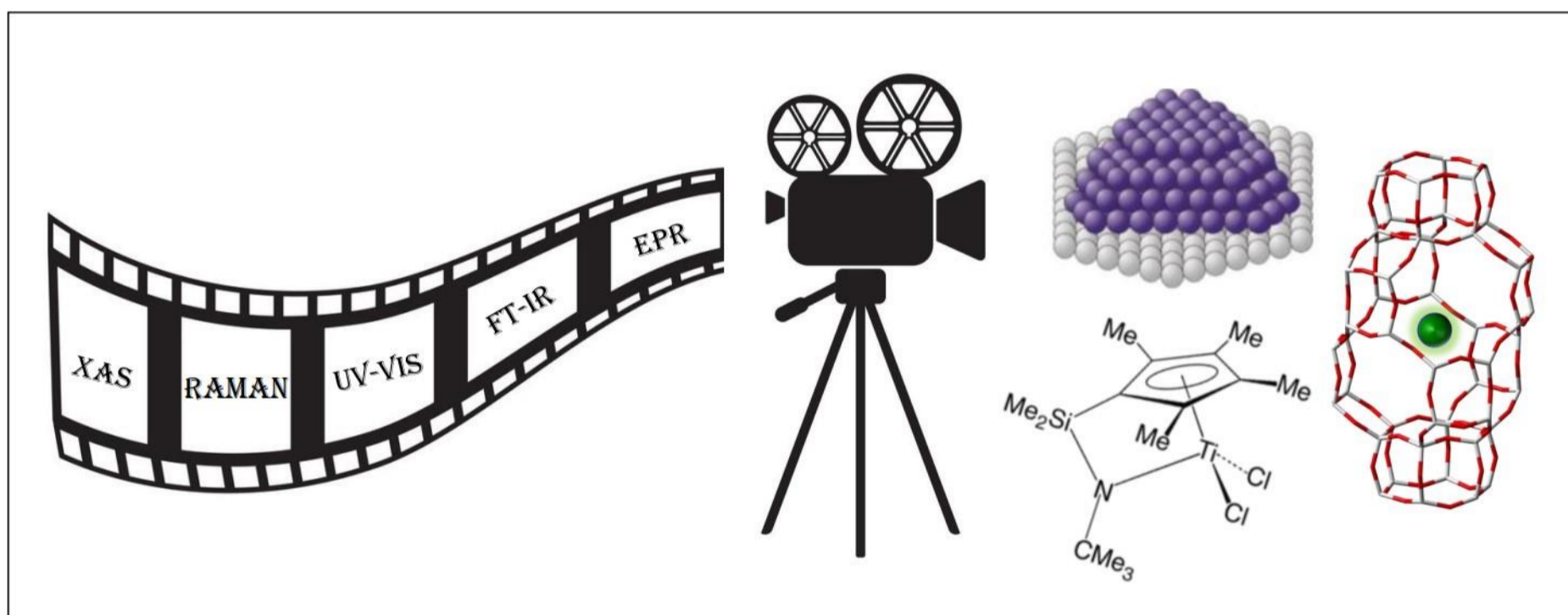
NIS Colloquium 2022

Spectroscopy in Catalysis

Friday November 18th 2022, 9:30 – 17:30

Accademia Albertina di Belle Arti, Via Accademia Albertina, 6 - Torino

Organizers: Reza Abasabadi, Vasco António Correia Saltão, and Chiara Nannuzzi



Spectroscopies have been used for decades to investigate the structure of surface sites and adsorbed intermediates on heterogeneous catalysts. Often a multitechnique approach is needed to obtain a consistent description of active sites, spectators and reaction mechanisms. This scientific meeting is organized within the frame of **NIS Centre** and the **H2020-ITN project CHASS 'Cu-CHA zeolite-based catalysts for the selective catalytic reduction of NOx in exhaust diesel gas: addressing the issue of Sulfur Stability'**, coordinated by the Department of Chemistry of University of Torino, with the participation of Chalmers University of Technology and Umicore company.

Following the well established format of NIS Colloquium, the more recent advances in the field of spectroscopy applied to heterogeneous catalysts (*in situ* and *operando* conditions) are discussed in an informal atmosphere, where large space is given for discussion.

Participation is limited up to 70 participants. **Registration is required.**

Registration link: <https://forms.gle/9p7b96KGA2Kx5KiP6>

Contact mail: itnchass@unito.it

Location:





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itn - project
M. Curie



Program

- 9:30 – 10:10** **Time-resolved spectroscopy of catalysts under dynamic conditions**
Davide Ferri (Paul Scherrer Institute)
- 10:10 – 10:35** **Single-site platinum supported on UiO-66 (Ce) for the low-temperature WGS reaction**
Sergio Rojas Buzo (Universitat Politècnica de València)
- 10:35 – 11:00** **From feed adsorption toward catalyst deactivation. New inputs in MTO conversion mechanism by combined vibrational spectroscopies**
Alessia Airi (University of Turin)
- 11:00 – 11:30** **Coffee Break**
- 11:30 – 12:10** **Micro-spectroscopical characterization of heterogeneous catalysts: a case of fluorescence spectroscopy**
Yadolah Ganjkanlou (Utrecht University)
- 12:10 – 12:35** **Activity of Cu(I)-bipyridine homogenous complexes in hydrocarbons oxygenation reactions: a Raman study**
Alessandro Damin (University of Turin)
- 12:35 – 14:00** **Free time for lunch**
- 14:00 – 14:40** **On the Role and Applications of Electron Magnetic Resonance Techniques in Surface Chemistry and Heterogeneous Catalysis**
Mario Chiesa (University of Turin)
- 14:40 – 15:05** **Exploring the Interaction of NO in Microporous Materials with EPR Spectroscopy**
Yu-Kai Liao (University of Turin)
- 15:05 – 15:30** **The spectroelectrochemistry for the catalytic conversion of CO₂**
Alice Barbero (University of Turin)
- 15:30 – 16:00** **Coffee Break**
- 16:00 – 16:40** **The critical role of the reactor cell in view of reliable mechanistic studies**
Marco Daturi (Université de Caen Normandie)
- 16:40 – 17:10** **Adsorbate-induced reconstruction in Pd and Pt based catalysts**
Alberto Ricchebuono and Eleonora Vottero (University of Turin)
- 17:10 – 17:30** **Concluding remarks**

