Contribution ID: **3** Type: **Oral**

Few atoms metal clusters with high catalytic and cytotoxic activity characterized by X-Ray Absorption Spectroscopy.

Tuesday, 6 September 2022 09:45 (20 minutes)

Here, we show three examples of how XAS techniques are very useful to provide an exhaustive information about the oxidation state and coordination environment of MCs and SACs::
- Pd SACs spontaneously formed after dissolving in neat benzyl alcohols. The gram-scale preparation and stabilization of Pd SACs within the functional channels of a novel methyl-cysteine-based metal–organic framework (MOF) was accomplished, to give a robust and crystalline solid catalyst.
- Ligand-free, few-atom Pd Cs in solution that catalyse the α-selective intramolecular Mizoroki–Heck coupling of iodoaryl cinnamates. The α-selective intermolecular coupling is also achieved with Pd Cs encapsulated within fine-tuned and sterically restricted zeolite cavities.
- Pt Cs prepared in water by just adding a biocompatible extremely mild external reductant. The PtCs show 400 times higher antitumoral activity than cisplatin and thousand times higher activity than Pt NPs for various cancer cell lines.

Would you like to participate in the Poster Prize competition?

Yes

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