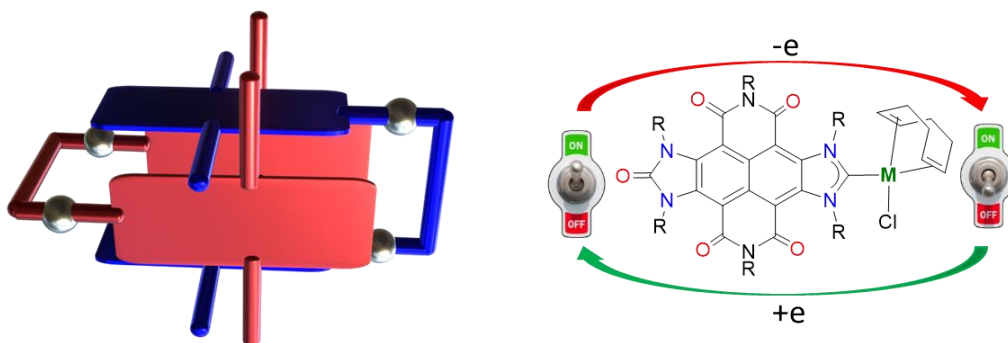


## Smart N-Heterocyclic Carbenes for Supramolecular Assemblies and Switchable Catalysts (SMART-NHCs)

Our research aims to merge the expertise of our research group in supramolecular organometallic chemistry and in homogeneous catalysis for developing two main research lines, aiming to: a) **develop new supramolecular assemblies for host-guest chemistry purposes and supramolecular catalysis**, and b) **design reversible switchable catalysts for specific catalytic transformations**.



Related recent publications:

- (1) Ruiz-Zambrana, C.; Poyatos, M.; Peris, E. A Redox-Switchable Gold(I) Complex for the Hydroamination of Acetylenes: A Convenient Way for Studying Ligand-Derived Electronic Effects. *ACS Catal.* **2022**, *12*, 4465-4472.
- (2) Ibáñez, S.; Vicent, C.; Peris, E. Clippane: A Mechanically Interlocked Molecule (Mim) Based on Molecular Tweezers. *Angew. Chem. Int. Ed.* **2022**, *61*, e202112513.
- (3) Ruiz-Zambrana, C.; Gutierrez-Blanco, A.; Gonell, S.; Poyatos, M.; Peris, E. Redox-Switchable Cycloisomerization of Alkynoic Acids with Naphthalenediimide-Derived N-Heterocyclic Carbene Complexes. *Angew. Chem. Int. Ed.* **2021**, *60*, 20003-20011.
- (4) Poyatos, M.; Peris, E. Insights into the Past and Future of Janus-Di-N-Heterocyclic Carbenes. *Dalton Trans.* **2021**, *50*, 12748-12763.
- (5) Ibáñez, S.; Poyatos, M.; Peris, E. N-Heterocyclic Carbenes: A Door Open to Supramolecular Organometallic Chemistry. *Acc. Chem. Res.* **2020**, *53*, 1401-1413.
- (6) Ibáñez, S.; Peris, E. Dimensional Matching Versus Induced-Fit Distortions: Binding Affinities of Planar and Curved Polyaromatic Hydrocarbons with a Tetragold Metallorectangle. *Angew. Chem. Int. Ed.* **2020**, *59*, 6860-6865.
- (7) Martinez-Agramunt, V.; Eder, T.; Darmandeh, H.; Guisado-Barrios, G.; Peris, E. A Size-Flexible Organometallic Box for the Encapsulation of Fullerenes. *Angew. Chem. Int. Ed.* **2019**, *58*, 5682-5686.
- (8) Ibáñez, S.; Peris, E. A Rigid Trigonal-Prismatic Hexagold Metallo cage That Behaves as a Coronene Trap. *Angew. Chem. Int. Ed.* **2019**, *58*, 6693-6697.

If you are interested in joining our group, please drop us a line ([eperis@uji.es](mailto:eperis@uji.es), [poyatosd@uji.es](mailto:poyatosd@uji.es)), or directly send your application according to the guidelines given in the following links:

### Graduate students (aiming PhD):

<https://ujiapps.uji.es/ade/rest/storage/WTVT0HOXUUV CJXTEUJFL87BRMID9BNK>

### Postdoct:

<https://ujiapps.uji.es/ade/rest/storage/FKDSVCB2HWFSSHRTYLDWNEA3NUQPSDXH>