



Mercoledì **27 settembre 2023** alle ore **15:00** presso l'aula G

il **Dr. Alexander Pöthig**

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Germany.

terrà il seminario dal titolo:

Supramolecular organometallic complexes and their host-guest and biomedical applications

Multinuclear NHC complexes of different metals form supramolecular organometallic complexes (SOC)¹ with very defined cavities and are able to selectively host guest ions or molecules. The dinuclear square-planarly coordinated complex (crisp) possesses the shape of a saddle, whose inner cavity can be used to encapsulate anions via formation of 2:1 tennis-ball like capsoplexes.^{2,3} The octanuclear silver(I) and gold(I) complex (pillarplex) have a tubular cavity which selectively incorporates linear molecules⁴ and can form (pseudo)rotaxanes.^{5,6} The structural features of the pillarplexes render these SOCs also ideal for interaction with negatively charged biomacromolecules. We have shown, that the pillarplex is able to interact with DNA, in particular so-called 4-way Holliday Junctions.⁷

References

- ¹ A. Pöthig, A. Casini, **2019**, *Theranostics*, 9(11):3150-3169.
- ² P. J. Altmann, C. Jandl, A. Pöthig, *Dalton Trans.*, **2015**, 44, 11278-11281.
- ³ P. J. Altmann, A. Pöthig, *Chem. Commun.*, **2016**, 52, 9089-9092.
- ⁴ P. J. Altmann, A. Pöthig, *J. Am. Chem. Soc.*, **2016**, 138 (40), 13171-13174.
- ⁵ P. J. Altmann, A. Pöthig, *Angew. Chem., Int. Ed.* **2017**, 129(49), 15939-15942.
- ⁶ A.A. Heidecker, M. Stasi, A. Spears, J. Boekhoven, A. Pöthig, *ChemPlusChem.*, **2023**, DOI: 10.1002/cplu.202300234.
- ⁷ J. S. Craig, A. Pöthig*, M. J. Hannon* et. al., *J. Am. Chem. Soc.* **2023**, 145, 25, 13570-13580

La presenza della S. V. sarà molto gradita

Marco Baron

Il Direttore del Dipartimento
Michele Maggini