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Coordination Self-Assembly: From the Origins to the Latest Advances

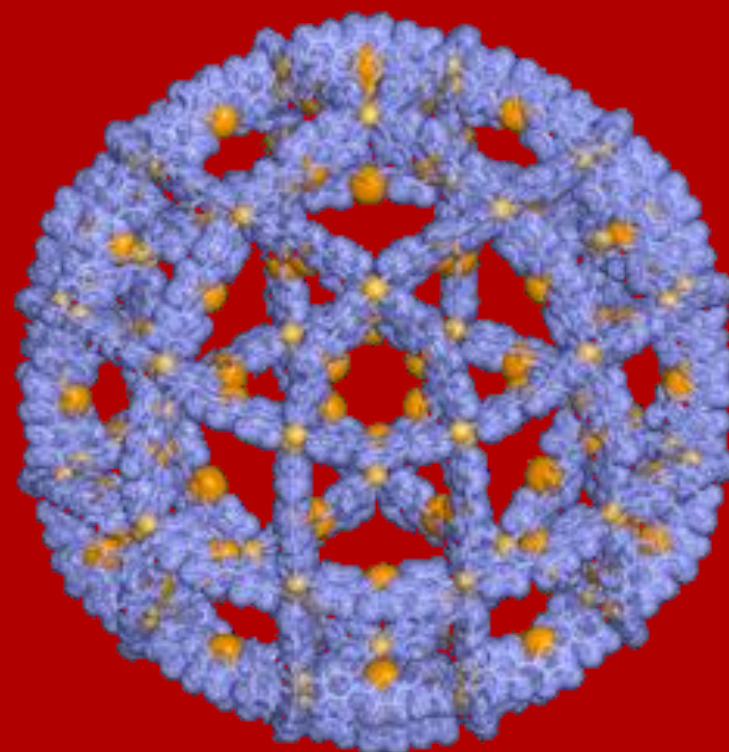
Venerdì 31 Maggio 2019, ore 11.30

Aula A, Dipartimento di Scienze Chimiche, Via Marzolo 1 - Padova

Molecular self-assembly based on coordination chemistry has made an explosive development in recent years. Over the last >25 years, we have been showing that the simple combination of transition-metal's square planer geometry (a 90 degree coordination angle) with pyridine-based bridging ligands gives rise to the quantitative self-assembly of nano-sized, discrete organic frameworks. Representative examples include square molecules (1990), linked-ring molecules (1994), cages (1995), capsules (1999), and tubes (2004) that are self-assembled from simple and small components.

Originated from these earlier works, current interests in our group focus on *i)* molecular confinement effects in coordination cages, *ii)* solution chemistry

In crystalline porous complexes (as applied to "crystalline sponge method"),^[1] and *iii)* and giant self-assemblies,^[2] as disclosed in this lecture.



References

[1] Y. Inokuma, S. Yoshioka, J. Ariyoshi, T. Arai, Y. Hitora, K. Takada, S. Matsunaga, K. Rissanen, M. Fujita *Nature* 2013, 495, 461-466.

[2] D. Fujita, Y. Ueda, S. Sato, N. Mizuno, T. Kumasaka, M. Fujita, *Nature* 2016, 540, 563.

La presenza della S. V. sarà molto gradita.

Prof. Michele Maggini
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