



**UNIVERSITÀ  
DEGLI STUDI  
DI TRIESTE**

*Department of Chemistry and Pharmaceutical Sciences*

## **AVVISO di SEMINARIO**

Il giorno **GIOVEDÌ 9 NOVEMBRE 2023**

ore **16:30**, Sala del Consiglio, Ed. C11, DSCF

**il Prof. Jonathan R. Nitschke**

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terrà una conferenza dal titolo:

### **Molecules in Metal Boxes**

on line su *MS Teams*:

<https://teams.microsoft.com/l/meetup-join/19%3aJraF607mM4c6D7Hfpw0Oe5U7n87E3J6-vbsC9V2bC8k1%40thread.tacv2/1698660643363?context=%7b%22Tid%22%3a%22a54b3635-128c-460f-b967-6ded8df82e75%22%2c%22Oid%22%3a%22b3d84761-19d7-4281-b73c-a0ca56fd8e3a%22%7d>

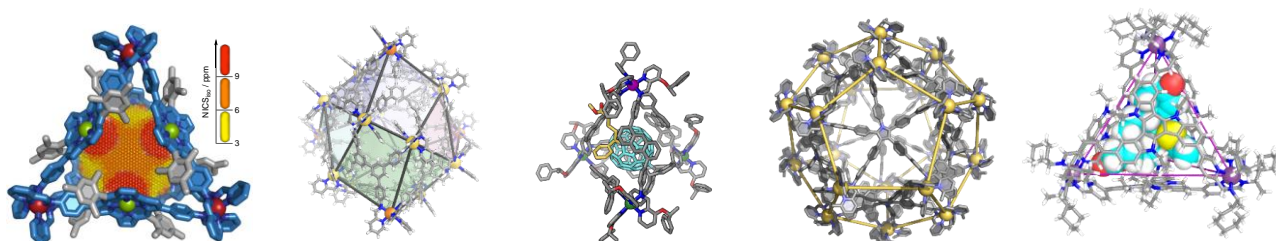
**Tutti gli interessati sono cordialmente invitati a partecipare**

Il Direttore

Prof. Paolo Tecilla

## Abstract

Simple organic subcomponents can come together around metal-ion templates to produce intricate hollow capsules,<sup>[1]</sup> which can bind guest molecules selectively. This talk will describe the design and uses of some of these three-dimensional architectures, a few of which are shown in Figure 1 below, along with the use of the same construction principles to produce interlocked structures – catenanes<sup>[2]</sup> and knots<sup>[3]</sup> – and double-helical metallopolymers with potentially useful optoelectronic properties.<sup>[4]</sup>



**Figure 1.** From left to right: an antiaromatic-walled cage,<sup>[5]</sup> a capsule isomorphous to ferritin,<sup>[6]</sup> a capsule capable of stereoselectively functionalizing fullerenes,<sup>[7]</sup> a dodecahedral capsule with enough interior volume to house a small protein,<sup>[8]</sup> and a capsule that discriminates between and selectively binds steroids.<sup>[9]</sup>

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- [9] G. Li, T. K. Ronson, R. Lavendomme, Z. Huang, C. Fuertes-Espinosa, D. Zhang, J. R. Nitschke, *Chem* **2023**, *in press*.