



UNIVERSITÀ
DEGLI STUDI
DI PADOVA



Martedì 24 settembre alle ore **15:00** presso l'Aula F
Dipartimento di Scienze Chimiche, via Francesco Marzolo 1

Prof. Michael Fröba

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terrà il seminario:

“Periodic Mesoporous Organosilicas: Porosity meets Functionality?”

Periodic mesoporous organosilicas (PMOs) have been of interest for the last 18 years because of the attractive combination of a robust inorganic framework with the enormous functional variability of the organic bridges paired with tunable nanoporosity. Various research groups worldwide are developing new PMOs for the usage as heterogeneous catalysts, adsorbents, sensors, drug containers and optical materials. Comparable to silica based materials it is also possible to shape PMOs in order to obtain thin films, monoliths, nanoparticles, hollow spheres, core/shell systems and inverse opal morphologies with hierarchical pore structures. The research focus of our group is on PMO materials with different functionalities and morphologies which covers the range from optical materials over highly efficient adsorbents for toxic gases to the usage as model host structures for investigating the properties of water in confining hybrid nanopores.

References

- [1] J.B. Mietner, F.J. Brieler, Y.J. Lee, and M. Fröba, *Angew. Chem. Int. Ed.* 2017, 56, 12348-12351.
- [2] T. Simon, F.J. Brieler, M. Fröba, *J. Mater. Chem. C* 2017, 5, 5263-5268.
- [3] L. Grösch, Y.J. Lee, F. Hoffmann, M. Fröba, *Chem. Eur. J.* 2015, 21, 331-346.
- [4] F. Hoffmann and M. Fröba, *Chem. Soc. Rev.* 2011, 40, 608-620.
- [5] F. Hoffmann, M. Cornelius, J. Morell, M. Fröba, *Angew. Chem. Int. Ed.* 2006, 45, 3216-3251.

Il Direttore del Dipartimento
Prof. Michele Maggini

Prof.ssa Silvia Gross