2024 Syensqo chair in chemistry by the International Solvay Institutes

Professor Markus Antonietti

(Max Planck Institute of Colloids and Interfaces Potsdam, Germany)

Inaugural Lecture

Simply Black Magic: Functional carbocatalyst to replace noble metals and expanding the options of chemistry as such

In times of sustainability, Carbon materials with their high surface area and abundant functionality, best made from simple starting products, are a convincing choice. Here, the notation "carbon" is rather broad and includes a diversity of covalent organic compounds with different composition, architecture, textures and the related properties. A common denominator is however that all these systems are made by cross-linking processes to become insoluble, rather inert solids at elevated temperatures. I will summarize in my talk some of our recent approaches to generate new as such carbons, e.g. "oxocarbons" or P-doped carbons, focusing on simplicity (the real sophistication).

I will show that many of the resulting 2d- and 3d structures are chemo-, photo- and electrocatalytically active and show even enzyme-like activity for some –in synthetic chemistry- very unusual reactions, such as binding and conversion from nanomolar concentrations for environmental cleaning or polymer degradation of otherwise stable polymers.

TUESDAY 14 MAY 2024 AT 4:00 PM

COFFEE AND TEA WILL BE SERVED AT 3:45 P.M AND DRINKS AT 5:00 P.M. IN FRONT OF THE SOLVAY ROOM

Prof. Anonietti will deliver three other lectures in the Solvay Room on:
Thursday 16 May at 4 pm
Tuesday 21 May at 4 pm
Thursday 23 May at 4 pm

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