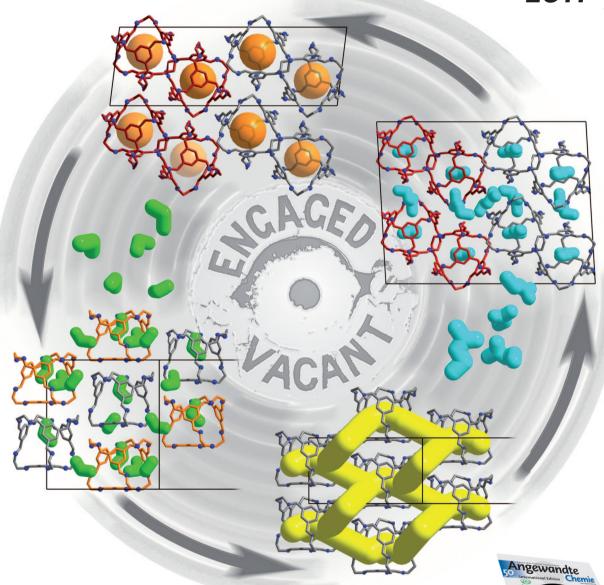
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2011-50/3



Polyphenols

S. Quideau et al.

Hydrogen Storage

M. Hirscher

Nanocrystal Growth

L. A. Archer and R. K. Mallavajula

Proteome in Single Cells

E. S. Yeung



See Back Cover

Cover Picture

James T. A. Jones, Daniel Holden, Tamoghna Mitra, Tom Hasell, Dave J. Adams, Kim E. Jelfs, Abbie Trewin, David J. Willock, Graeme M. Day, John Bacsa, Alexander Steiner, and Andrew I. Cooper*

An organic molecular crystal that demonstrates "on-off" porosity switching is presented by A. Cooper and co-workers in their Communication on page 749 ff. This organic solid, which is composed of intrinsically porous cage molecules, can reversibly interconvert between porous and nonporous polymorphs in response to solvent vapor. The switch is facilitated by both translational and conformational mobility in the molecular crystal.



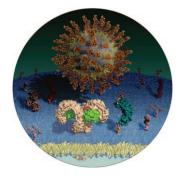


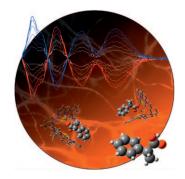
Natural Polyphenols

Resveratrol from red wine is a prime example of a natural polyphenol, whose health-promoting effects have been described. What polyphenols really are (and what not), from what they can be isolated, and how they can be synthesized is described by S. Quideau et al. in their Review on page 586 ff.

Lipopolysaccharides

In their Communication on page 622 ff., D. Prosperi, F. Peri, and co-workers report the synthesis and properties of lipopolysaccharide-coated magnetic nanoparticles, which have defined size and shape, and stimulate TLR4-dependent cell activation.





Chiral Transfer

Addition of carboxylic acids to a supramolecular host based on a metallosalphen framework results in chiral induction. In their Communication on page 713 ff., A. W. Kleij and co-workers describe how this phenomenon and can give new methods for determining absolute configurations.