

Combined Quantum Mechanics/Molecular Mechanics Methods H. M. Senn and W. Thiel

Catalytic Diamination of Alkenes

R. M. de Figueiredo

A Small-Molecule Library with a High Scaffold Diversity

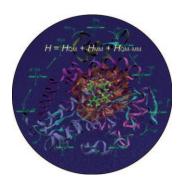
D. R. Spring et al.

Cover Picture

Andrés Guerrero-Martínez,* Sandra Fibikar, Isabel Pastoriza-Santos, Luis M. Liz-Marzán, and Luisa De Cola*

Nanocontainers composed of zeolite L crystals were filled with fluorescent dyes and used as the core of a silica "box-in-a-box" construction as in Russian matryoshka dolls, as described by A. Guerrero-Martínez, L. de Cola, and co-workers in their Communication on page 1266 ff. The anisotropic cores and isotropic shells of the multicolor emitting systems are separated by a polyelectrolyte layer and can be addressed independently. This approach opens fascinating routes for the construction of multifunctional nanosystems.



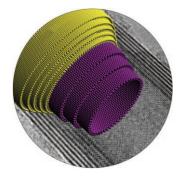


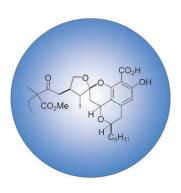
Theoretical Chemistry

Combined quantum mechanics/molecular mechanics methods find many uses in optimization and simulations studies of biomolecules. In their Review on page 1198 ff. H. M. Senn and W. Thiel present case studies and a list of applications from 2006 and 2007.

Inorganic Nanotubes

Multiwall WS_2 nanotube templates were used as hosts to prepare core–shell PbI_2 @WS₂ inorganic nanotubes by a capillary-wetting method, as described by R. Tenne and co-workers in their Communication on page 1230 ff.





Natural Product Synthesis

In their Communication on page 1283 ff., B. B. Snider et al. report the stereospecific condensation of a fully functionalized ketal aldehyde and a 2,6-dihydroxybenzoic acid as the key step in the synthesis of (–)-berkelic acid.