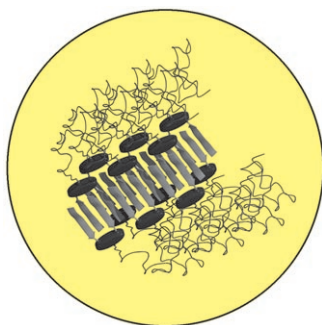
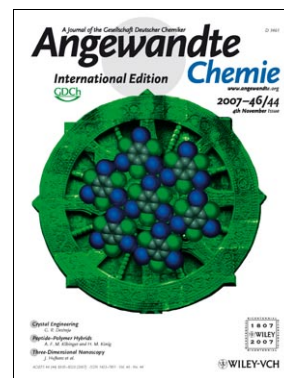


Cover Picture

Gautam R. Desiraju*

What determines the crystal structure, intermolecular interactions or close packing? This dichotomy recurs in crystal engineering, which attempts to understand complexity in molecular solids, as described by G. R. Desiraju in the Review on page 8342 ff. The cover picture shows that while the iodine atoms (blue) are in contact in 1,3,5-trichloro-2,4,6-triiodobenzene, the chlorine atoms (green) are not. The background shows a massive stone wheel of the sun god's chariot in the Konarak temple, symbolizing the scientist's quest for the eternal truth between the atom and the absolute.

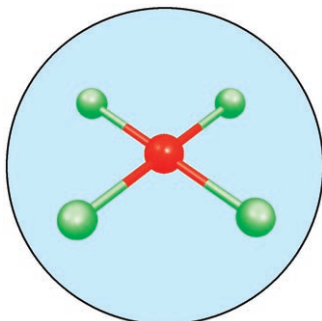
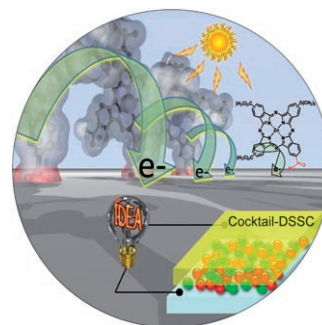


Supramolecular Chemistry

The conjugation of peptides with β -sheet structures to synthetic polymers combines natural superstructures with polymer chemistry. Such new peptide-polymer hybrid materials grant insight into self-organization processes, as described by A. F. M. Kilbinger and H. M. König in their Minireview on page 8334 ff.

Solar Cells

An important goal of photovoltaic research is the development of full-spectrum solar cells. In their Communication on page 8356 ff., M. K. Nazeeruddin, T. Torres, et al. describe advances achieved by the use of complementary dyes in dye-sensitized zinc phthalocyanine solar cells (cosensitization).



HgF₄

Calculations have long predicted the stability of HgF₄. IR spectroscopy in solid noble-gas matrixes now give the first experimental evidence that this compound exists. Its spectroscopic properties and electronic structure are reported by L. Andrews, M. Kaupp, et al. in their Communication on page 8371 ff.