Cover Picture

Ivan S. Neretin, Konstantin A. Lyssenko, Mikhail Yu. Antipin, Yuri L. Slovokhotov, Olga V. Boltalina, Pavel A. Troshin, Andrei Yu. Lukonin, Lev. N. Sidorov, and Roger Taylor

The cover picture shows the single-crystal X-ray structure for $C_{60}F_{18}$, the first fully characterized aromatic fullerene, possessing a flat and fully delocalized hexagonal benzenoid ring embedded at the center of the fluorinated crown. The bond lengths in this hexagon are all of equal length (1.372 Å). The un-addended part of the molecule possesses the normal C_{60} fullerene structure so that the overall appearance is that of a tortoise shell. $C_{60}F_{18}$ is potentially an important building block for donor–acceptor derivatives with photovoltaic/photonic applications, combining enhanced cage electron withdrawal, with a vacant area for location of donors. The unique geometry also makes the molecule a hexasubstituted benzene, which may be able to participate in η^6 coordination to metallic species. Details on this tortoise molecule are described by Slovokhotov, Boltalina, and Taylor et al. on p. 3273 ff.

