Cover Picture

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The cover picture shows the first expanded cubane with a C_{56} core. Formally derived by insertion of buta-1,3-diynediyl moieties into all 12 C–C single bonds of octamethoxycubane, its synthesis actually proceeds by the formation of corners, edges, and faces as key building blocks and intermediates. The expanded cubane is highly strained and explodes upon scraping. Under conditions of Fourier-transform ion-cyclotron-resonance mass spectrometry it rearranges into fullerenes, which, in the positive-ion mode, undergo fullerene coalescence reactions. Full details are described by Diederich et al. on p. 4339 ff.