Encircling the Square: Synthesis of Quadrannulene

Significance: The authors report the first synthesis of a [4]circulene. Quadrannulene 1 is comprised of a central four-membered ring fused together with four benzenoid units. Unlike previously reported bowl-shaped annulenes, such as corannulene, this structural motif is not observed in classical graphitic structures.

Comment: Despite the highly strained central core of 1 the compound is remarkably stable suggesting that new families of arenes and fullerenes could be accessed using this methodology.