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Quadrannulene: A Nonclassical Fullerene Fragment
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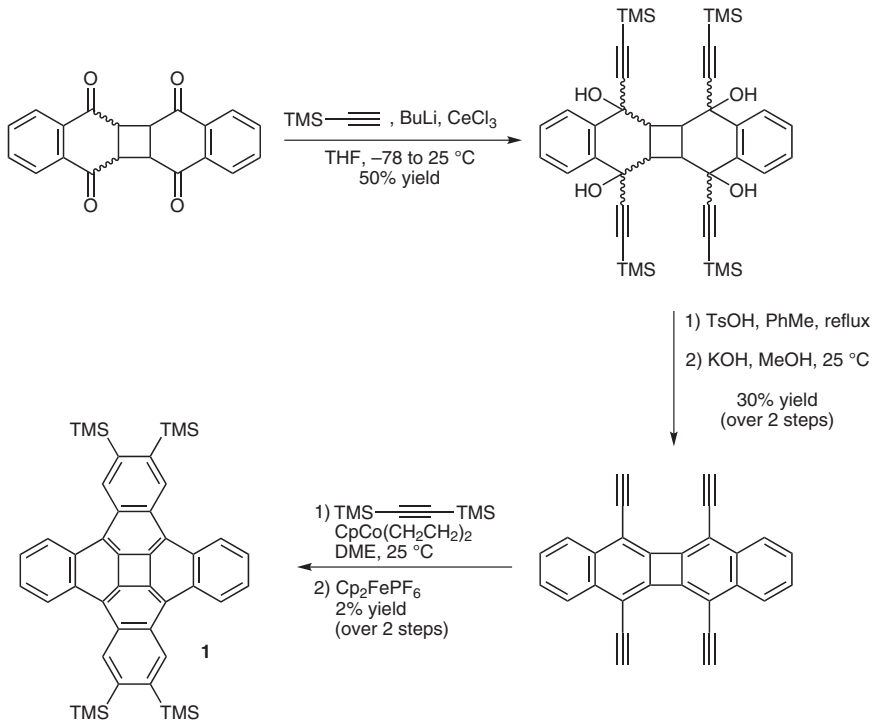
Category

Synthesis of Materials and Unnatural Products

Key words

fullerenes
corannulenes
cyclotrimerization

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 coronene, 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.

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