

## SYNFACTS Highlights in Current Synthetic Organic Chemistry

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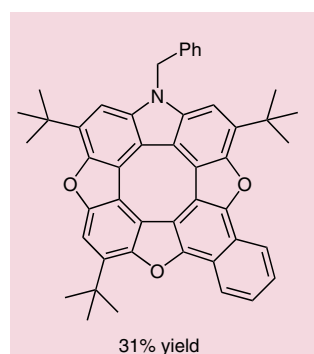
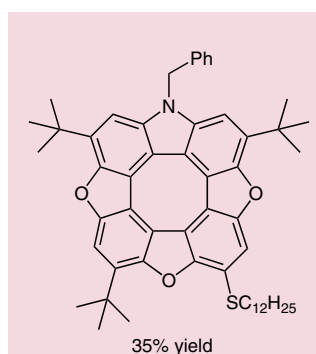
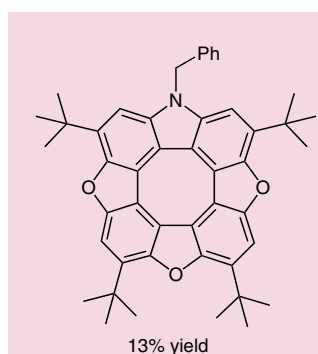
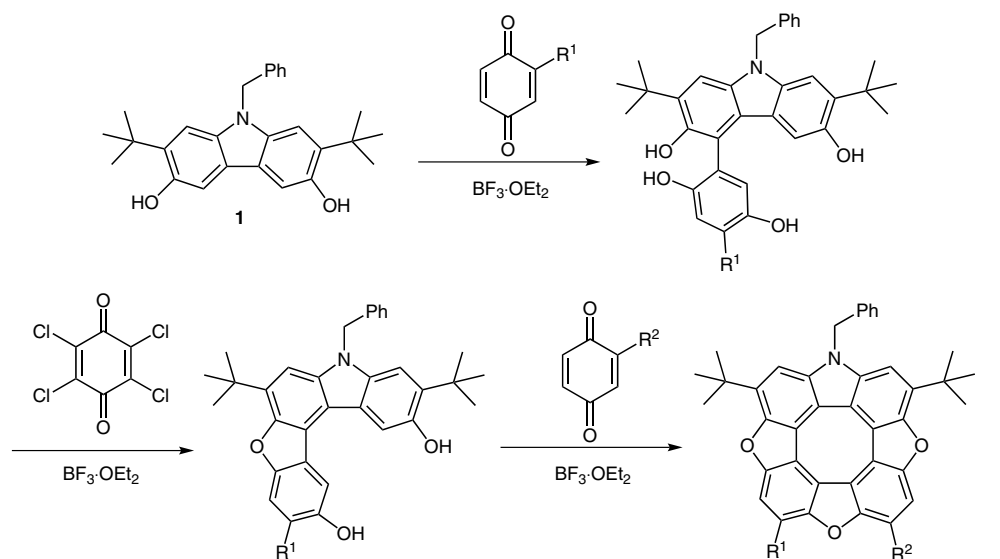
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Synthesis and Properties of Unsymmetrical Azatrioxa[8]circulenes  
*Org. Biomol. Chem.* **2015**, *13*, 5937–5943.

## Circulene Flow



**Significance:** The authors report the facile synthesis of unsymmetrical azatrioxa[8]circulenes that possess a cyclooctatetraene core. It was shown by theoretical calculations and by single-crystal X-ray analysis that these compounds are antiaromatic and highly planar. These types of species are also fluorescent and could be promising compounds for use in light-emitting devices.

**Comment:** The synthetic route outlined above involves the reaction of 3,6-dihydroxycarbazole derivative **1** with two benzoquinones in a sequential manner. Notably, the first substitution step must be carried out with a benzoquinone featuring an electron-donating R<sup>1</sup> substituent, otherwise undesired dimerization of the 3,6-dihydroxycarbazole occurs to give diazadioxo[8]circulenes.

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