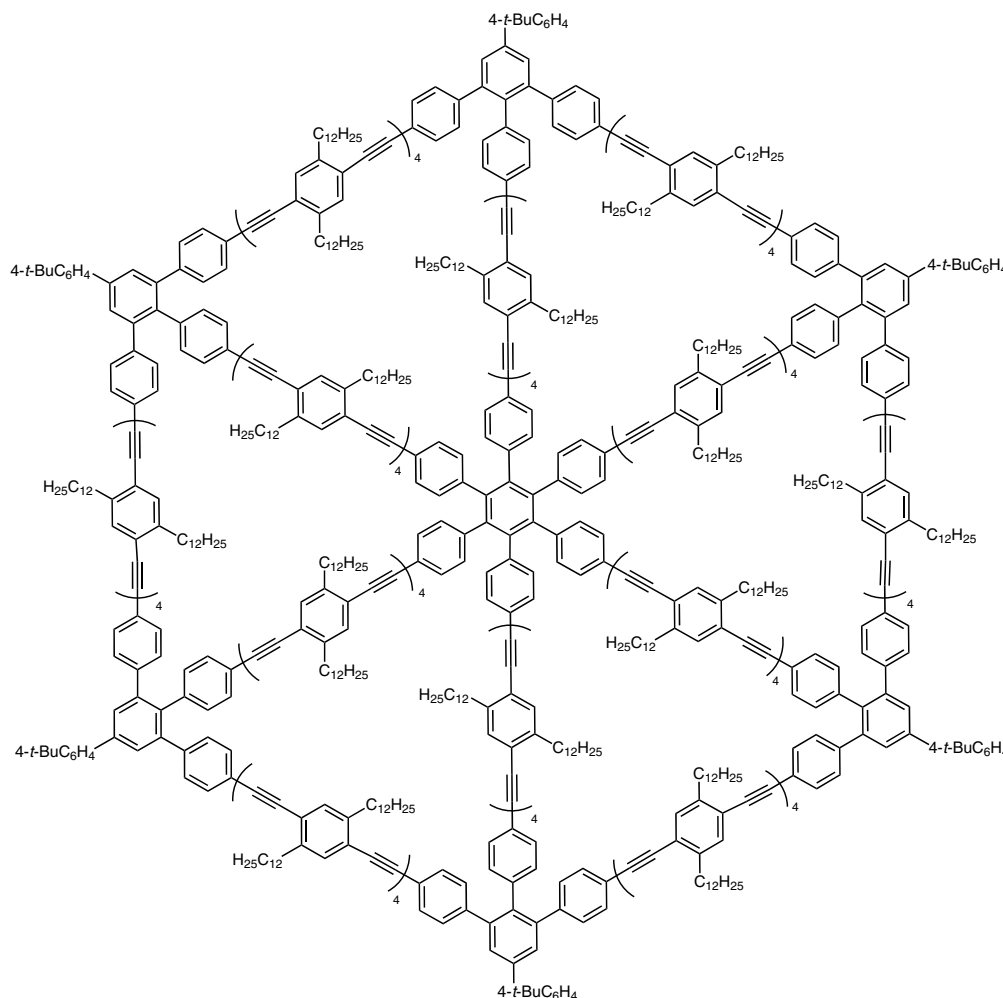


R. MAY, S.-S. JESTER,* S. HÖGER* (RHEINISCHE FRIEDRICH-WILHELMS-UNIVERSITÄT BONN, GERMANY)
A Giant Molecular Spoked Wheel
J. Am. Chem. Soc. **2014**, *136*, 16732–16735.

12 nm Soluble Wheel from c. 1878



Significance: The authors have designed and synthesized a soluble and highly rigid macromolecular wheel of the sum formula $C_{1878}H_{2682}$. The six 'spokes' of the hexagonal wheel are assembled, joined to the central hexaphenylbenzene unit, and cyclized via palladium coupling in a convergent and modular fashion.

Comment: The spokes maintain shape-persistence and further solubilize the rigid molecule with numerous dodecyl side chains. The yields in the synthetic sequence vary from modest (49%) to excellent (98%). The isolated product is a yellow fluorescent solid.

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Synfacts 2015, 11(2), 0150 Published online: 19.01.2015

DOI: 10.1055/s-0034-1379834; **Reg-No.:** S13514SF

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