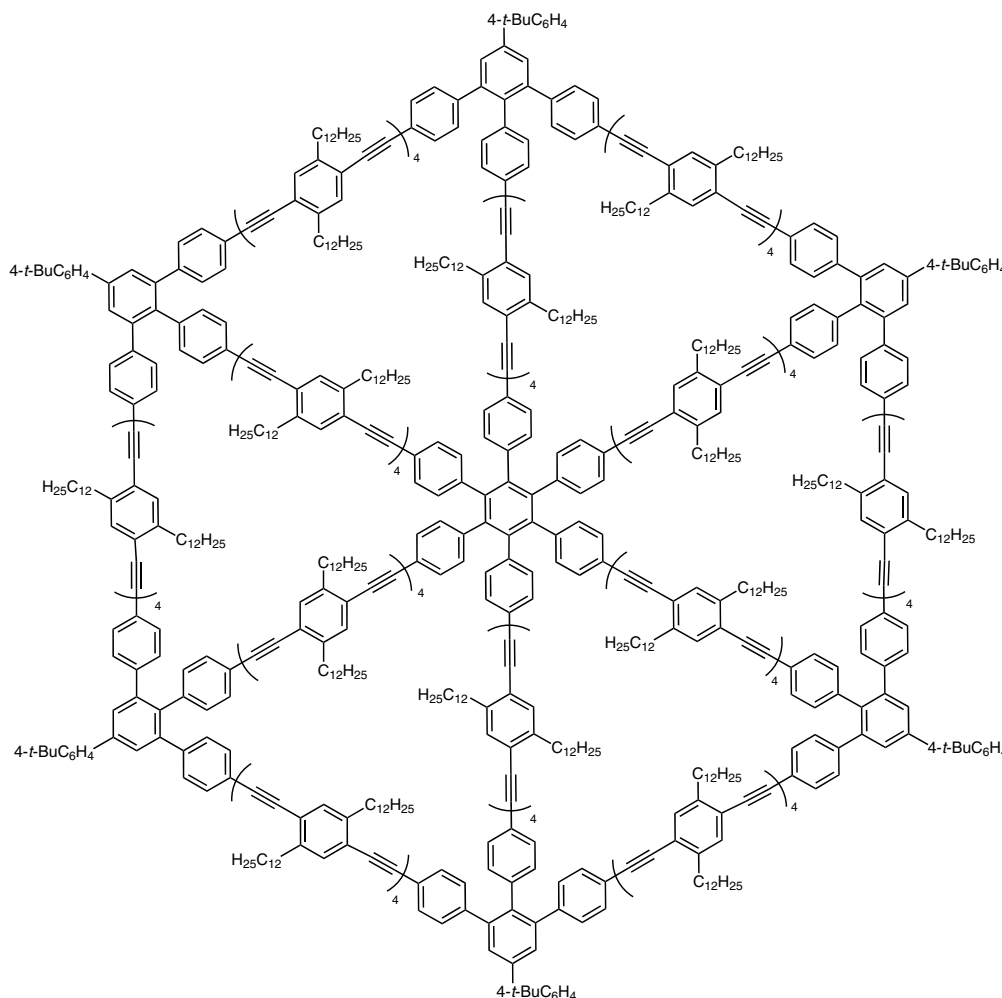


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A Giant Molecular Spoked Wheel  
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## 12 nm Soluble Wheel from c. 1878



**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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