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 Lemniscular Carbon NanoHoops with Contiguous Conjugation from Planar Chiral [2.2]Paracyclophane: Influence of the Regioselective Synthesis on Topological Chirality  
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## Topologically Chiral NanoHoops

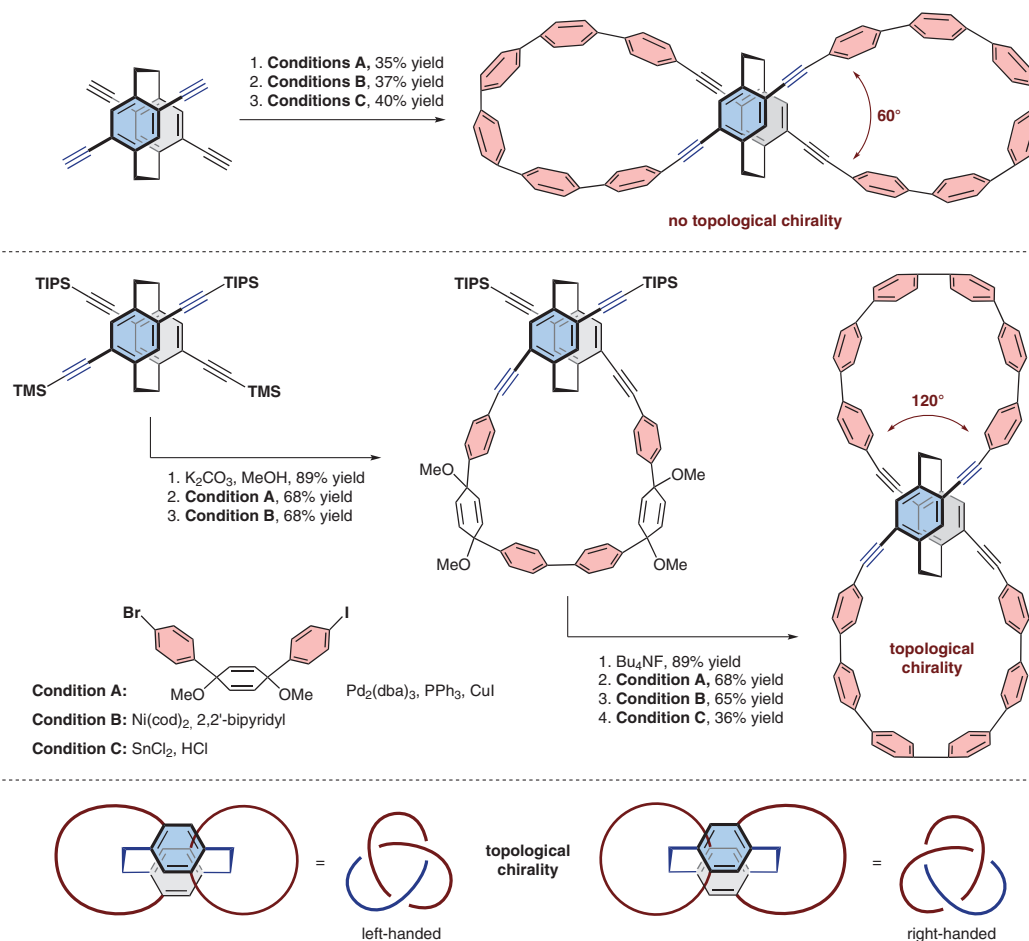
Category

Synthesis of  
Materials and  
Unnatural Products

Key words

topological chirality  
paracyclophane  
carbon nanoHoops

Synfact  
of the Month



**Significance:** As a novel chiral element, topological chirality has expanded the research and application horizon of related functional materials. While synthetic strategies for the non-conjugated counterparts have been widely investigated, methods for conjugated structures of topological chirality are relatively less explored. Herein, two isomeric nanoHoops of conjugated backbone are constructed by harnessing [2.2]paracyclophane as the hinge unit.

**Comment:** Introducing different silyl protective groups regioselectively to the central chiral paracyclophane is crucial to the subsequent site-specific ring closure and achievement of the topological chirality. The inherent difference in the structural topology exhibited by the two isomers results in their distinct chiral traits and chiroptical properties.

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