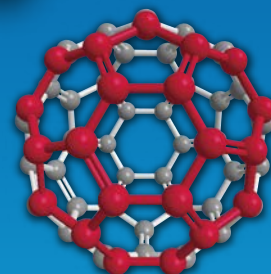
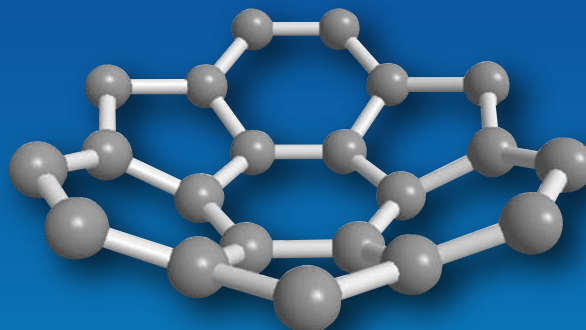


Bucky Bowl Molecule Sumanene



Sumanene
20mg / 100mg
[S0888]

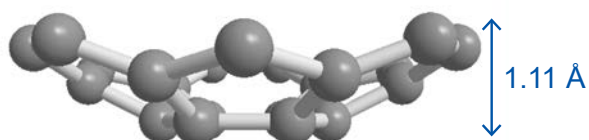


Substructure of C₆₀ fullerene

- Advantages**
- Bucky bowl structure more distorted than corannulene
 - π -stacking in crystals
 - Substructure of C₆₀ fullerene

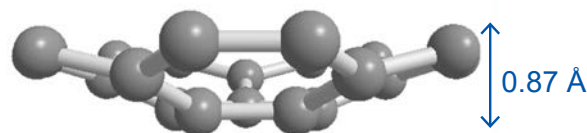
Comparison of Sumanene and Corannulene

Sumanene

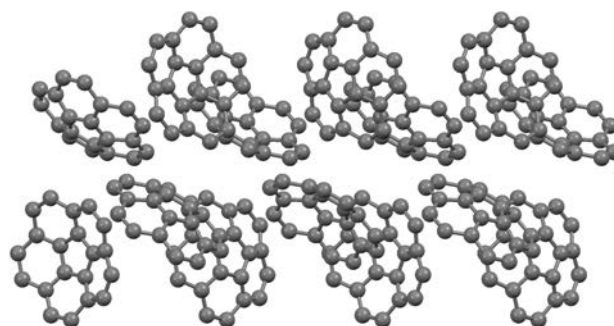
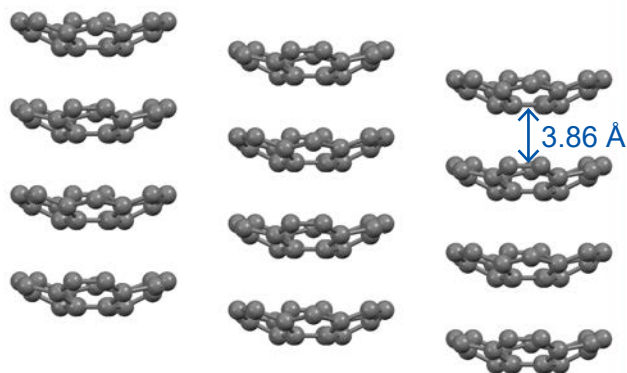


[S0888]

Corannulene



[C2572]



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H. Sakurai, T. Daiko, H. Sakane, T. Amaya, T. Hirao, *J. Am. Chem. Soc.* **2005**, 127, 11580.

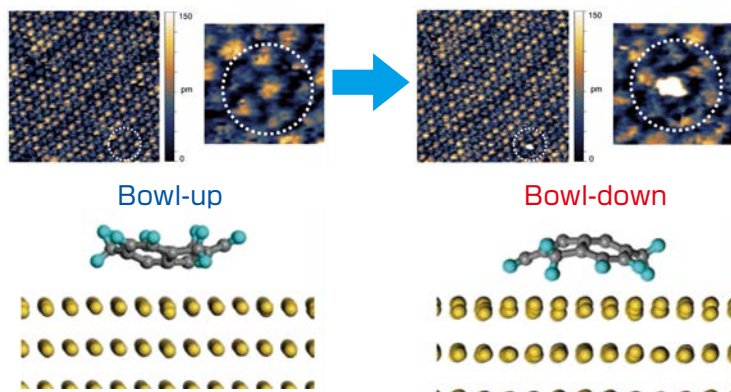
This product is commercialized under instruction by Professor Hidehiro Sakurai.

Related Product Corannulene

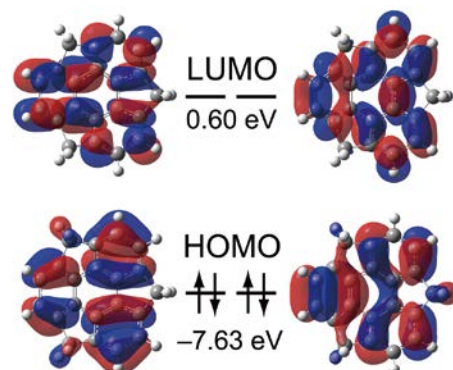
20mg / 100mg [C2572]

Applications

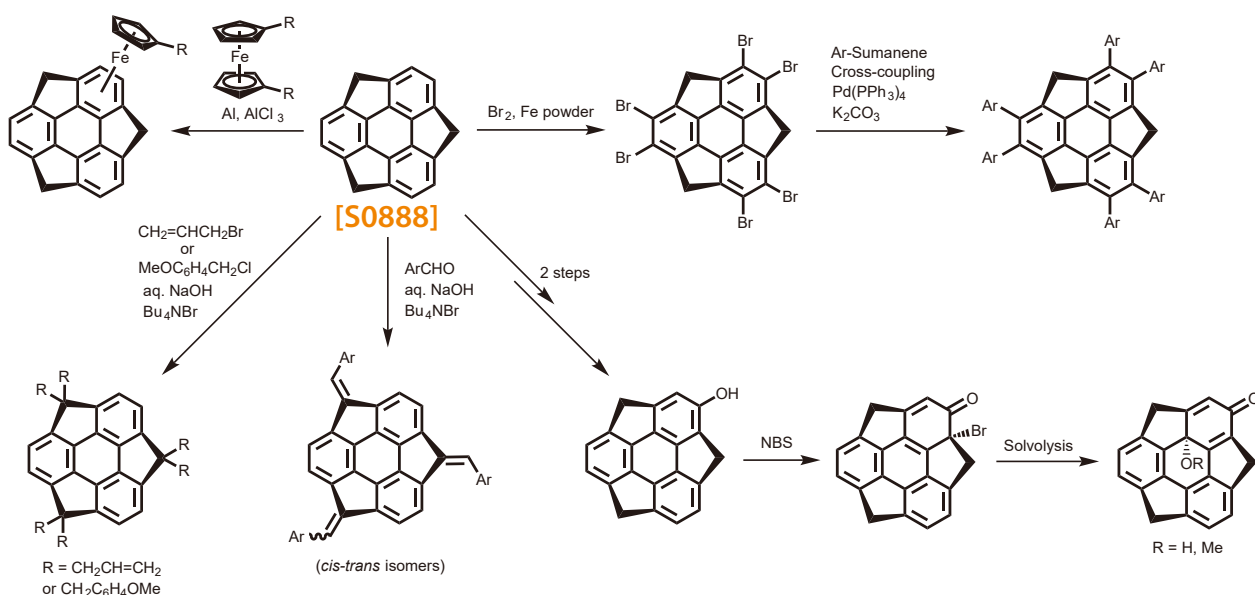
Memory function using molecular inversion of sumanene¹⁾



Molecular orbital of sumanene²⁾



Synthesis examples of sumanene derivatives³⁻⁶⁾



Semiconducting property of sumanene⁷⁾

Electron mobility $7.5 \times 10^{-1} \text{ cm}^2/\text{Vs}$ (TRMC method, stacking direction)

- References**
- 1) S. Fujii, M. Ziatdinov, S. Higashibayashi, H. Sakurai, M. Kiguchi, *J. Am. Chem. Soc.* **2016**, *138*, 12142.
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 - 5) H. Toda, Y. Yakiyama, Y. Shoji, F. Ishiwari, T. Fukushima, H. Sakurai, *Chem. Lett.* **2017**, *46*, 1368.
 - 6) N. Ngamsomprasert, J.-S. Dang, S. Higashibayashi, Y. Yakiyama, H. Sakurai, *Chem. Commun.* **2017**, *53*, 697.
 - 7) T. Amaya, S. Seki, T. Moriuchi, K. Nakamoto, T. Nakata, H. Sakane, A. Saeki, S. Tagawa, T. Hirao, *J. Am. Chem. Soc.* **2009**, *131*, 408.

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