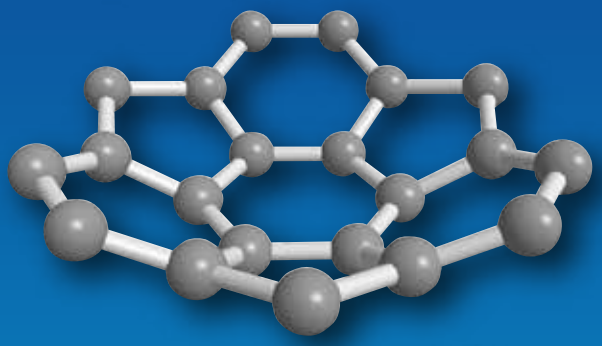
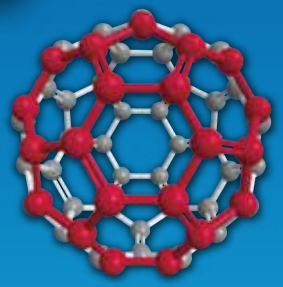
MATERIALS

Bucky Bowl Molecule Sumanene



Sumanene
20mg / 100mg
[S0888]



Substructure of C_{60} fullerene

Advantages

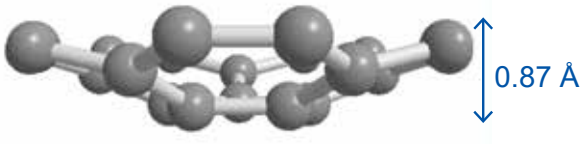
- Bucky bowl structure more distorted than corannulene
- π-stacking in crystals
- Substructure of C_{60} fullerene

Comparison of Sumanene and Corannulene

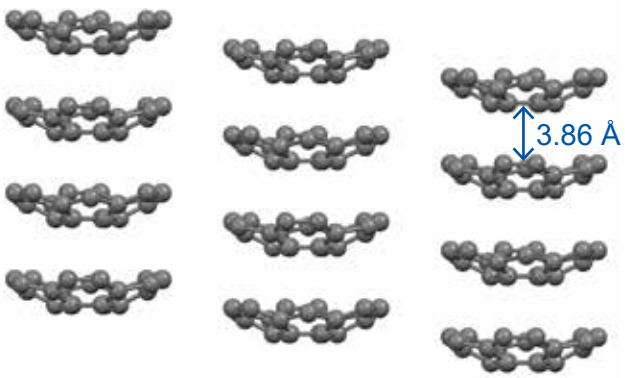
Sumanene

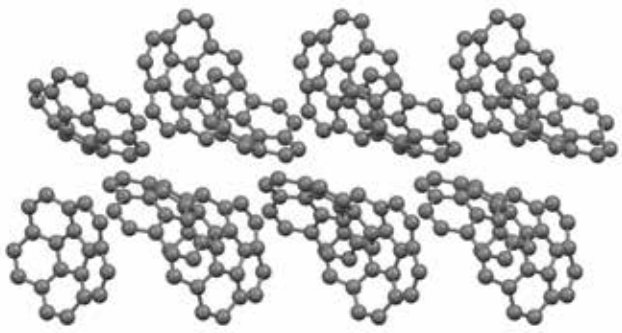
[S0888]

Corannulene



[C2572]





References H. Sakurai, T. Daiko, T. Hirao, *Science* **2003**, *301*, 5641.
H. Sakurai, T. Daiko, H. Sakane, T. Amaya, T. Hirao, *J. Am. Chem. Soc.* **2005**, *127*, 11580.

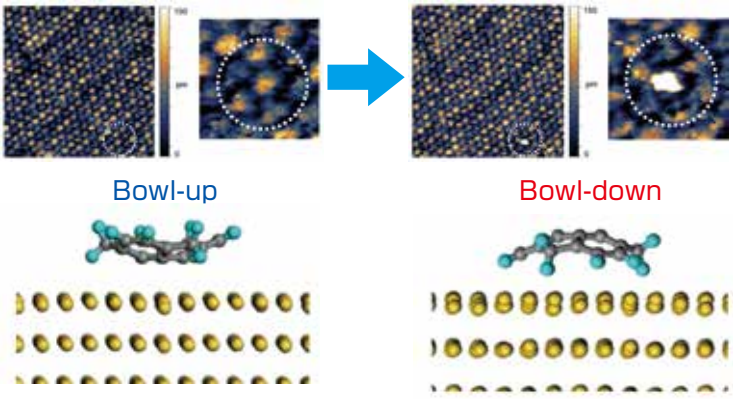
This product has been commercialized under the instruction of Professor Hidehiro Sakurai.

Related Product **Corannulene** 20mg / 100mg [C2572]

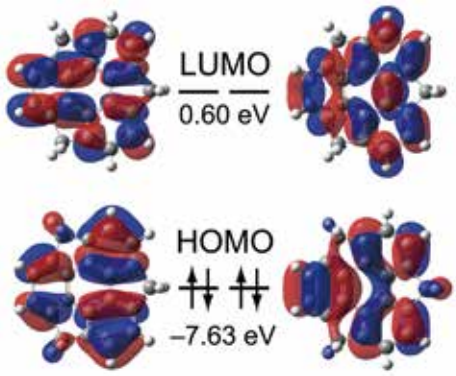
Bucky Bowl Molecule: Sumanene

Applications

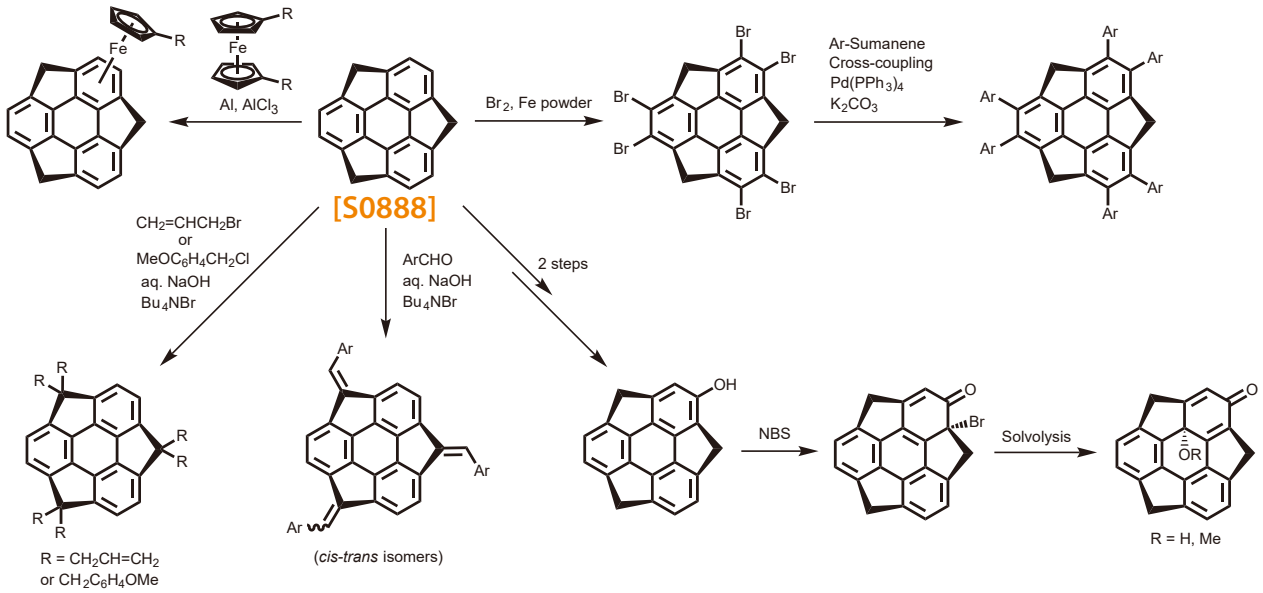
Memory function using molecular inversion of sumanene[1)]



Molecular orbital of sumanene[2)]



Synthesis examples of sumanene derivatives[3-6)]



Semiconducting property of sumanene[7)]

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

References

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2) N. Ngamsomprasert, G. Panda, S. Higashibayashi, H. Sakurai, *J. Org. Chem.* **2016**, *81*, 11978.
3) Highlight Review: S. Higashibayashi, H. Sakurai, *Chem. Lett.* **2011**, *40*, 122.
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5) H. Toda, Y. Yakiyama, Y. Shoji, F. Ishiwari, T. Fukushima, H. Sakurai, *Chem. Lett.* **2017**, *46*, 1368.
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TOKYO CHEMICAL INDUSTRY CO., LTD.
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E-mail : globalbusiness@TCIchemicals.com