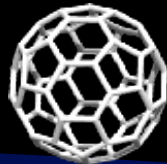


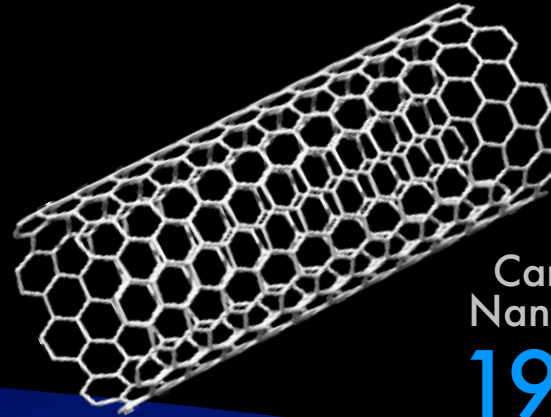
ナノカーボン

究極のベンゼン誘導体

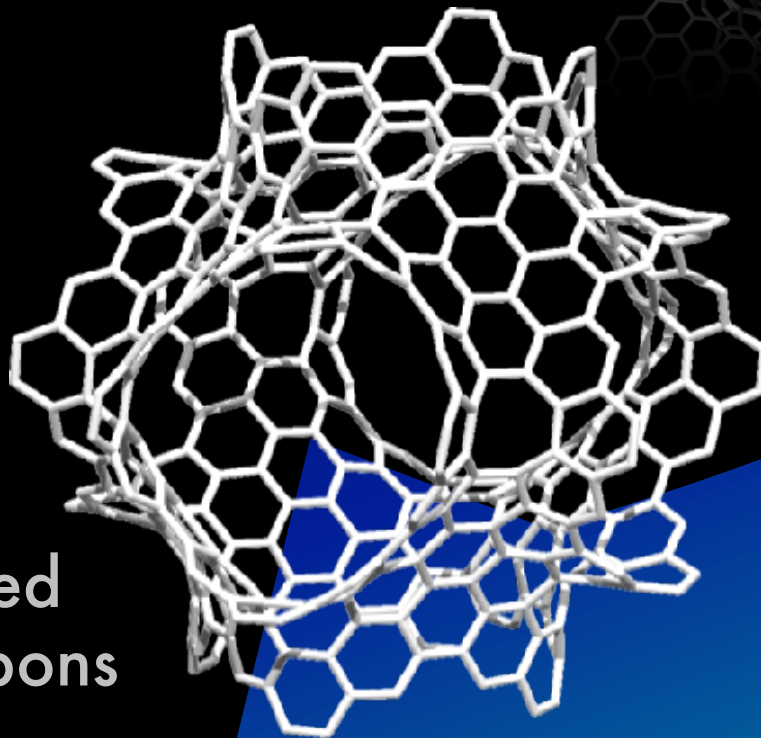
Benzene
1825



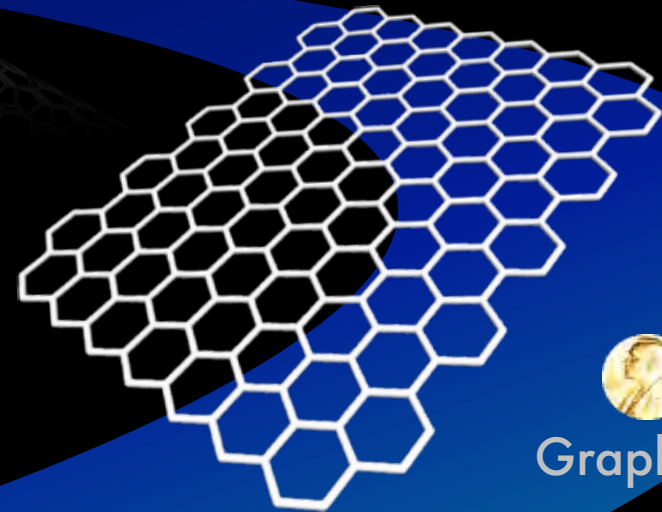
Fullerene
1985



Carbon
Nanotube
1991



Unexplored
Nanocarbons

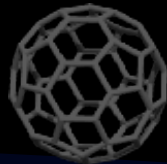
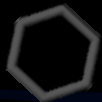


Graphene
2004

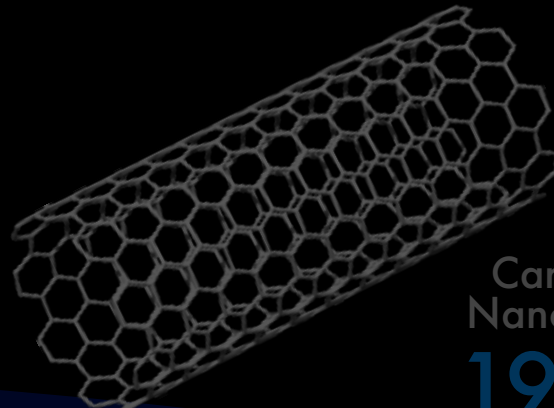
ナノカーボン

究極のベンゼン誘導体

Benzene
1825

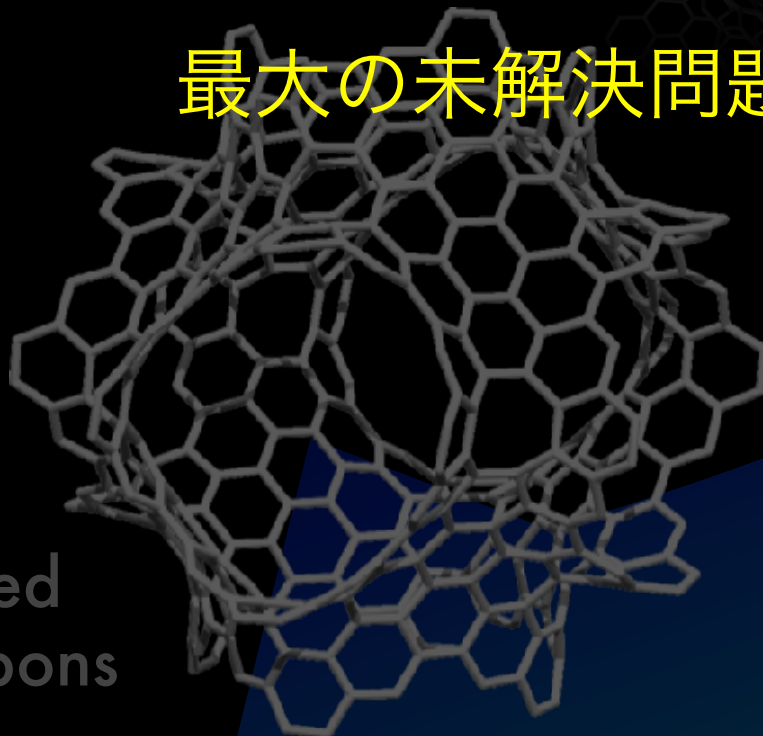


Fullerene
1985

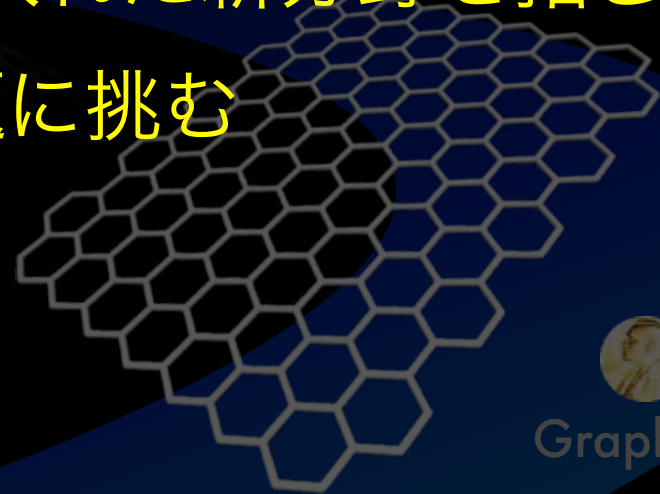


Carbon
Nanotube
1991

有機化学のエッセンスを取り入れた新分野を拓き
最大の未解決問題に挑む



Unexplored
Nanocarbons



Graphene
2004

最大の未解決問題に挑む

「分子として」

設計

混合物問題

精密合成はもちろんの
こと、混合物（物性は
異なる）を精製するこ
とができない

合成

活用・応用

理解

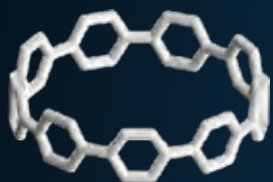
「分子ナノカーボン科学」という新分野

我々の分子ナノカーボン

これまでに存在しなかった、美しいそして新しい炭素のカタチ

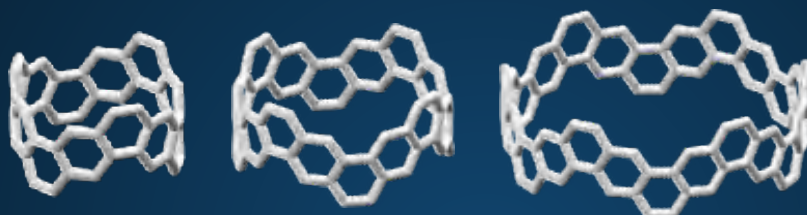
Carbon nanorings

Angew Chem (2009)



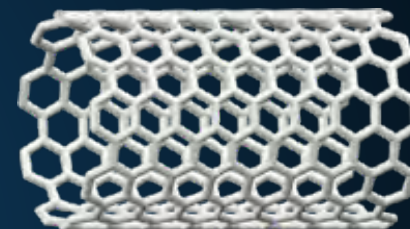
Carbon nanobelts

Science (2017), JACS (2018)



Uniform carbon nanotubes

Nature Chem (2013), Under review (2018)



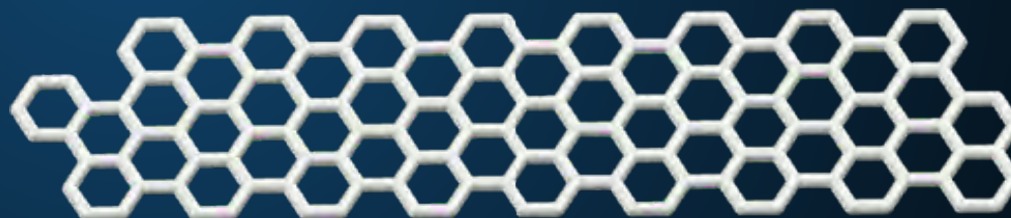
Exotic nanographenes

Nature Commun (2015), JACS (2015)



Uniform graphene nanoribbons

Science (2018), Under revision (2018)



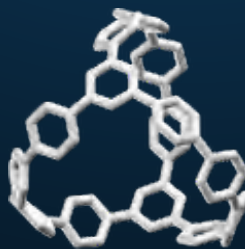
Warped nanographenes

Nature Chem (2013), ACIE (2018)



Carbon nanocages

Chem Sci (2013), JACS (2014)



Carbon catenanes and knots

Submitted

