

# Graphene: Nanoribbons (GNR)

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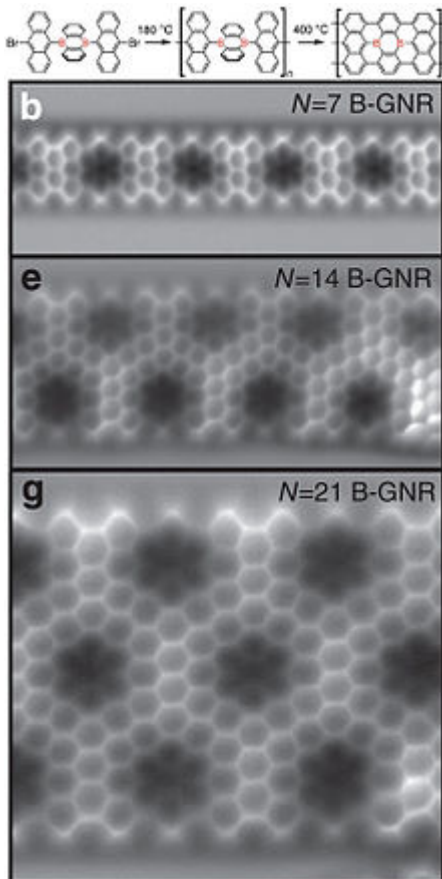


Image of nanoribbons that have a periodic width and boron doping pattern

On top we can see the reaction used for their synthesis. (source:wikipedia)

This presentation's topic is graphene nanoribbons. They have recently attracted attention as promising building blocks for nanoelectronic and spintronic devices. Their exciton properties include First-principle calculations with quasiparticle corrections and many-body effects exploring the electronic and optical properties of graphene-based materials. With GW calculation, the properties of graphene-based materials are accurately investigated, including graphene nanoribbons, edge and surface functionalized armchair graphene nanoribbons and scaling properties in armchair graphene nanoribbons.

## References:

- 1.wikipedia:graphene nanoribbons
- 2.J.AM.CHEM.SOC VOL130, NO. 13,2008 p 4216-4217