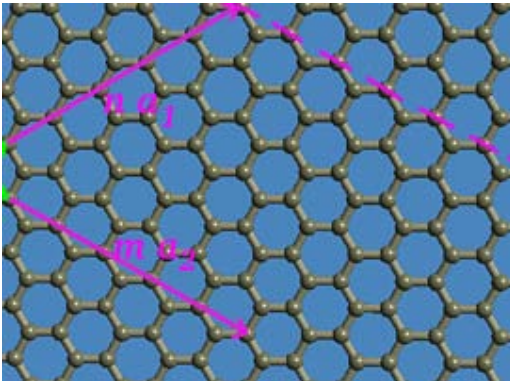


Graphite's fundamental properties



Graphite / graphene sheets are:

- Thin (0.34 nm)
- Strong (C-C covalent bonding)
- Thermally and chemically stable
- Conducting and electroactive
- Light-weight
- Cheap and non-toxic

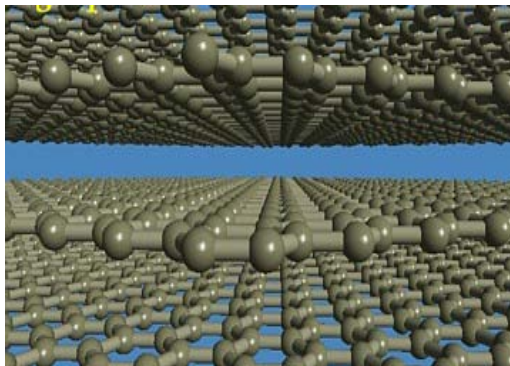
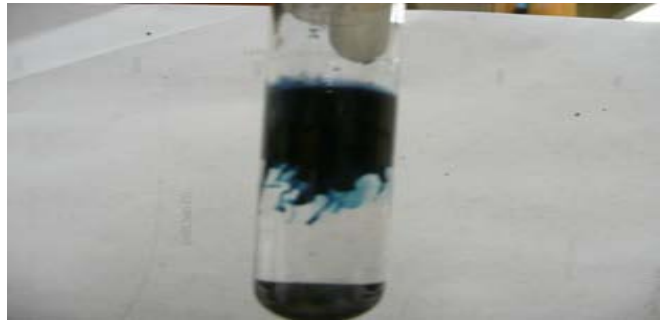
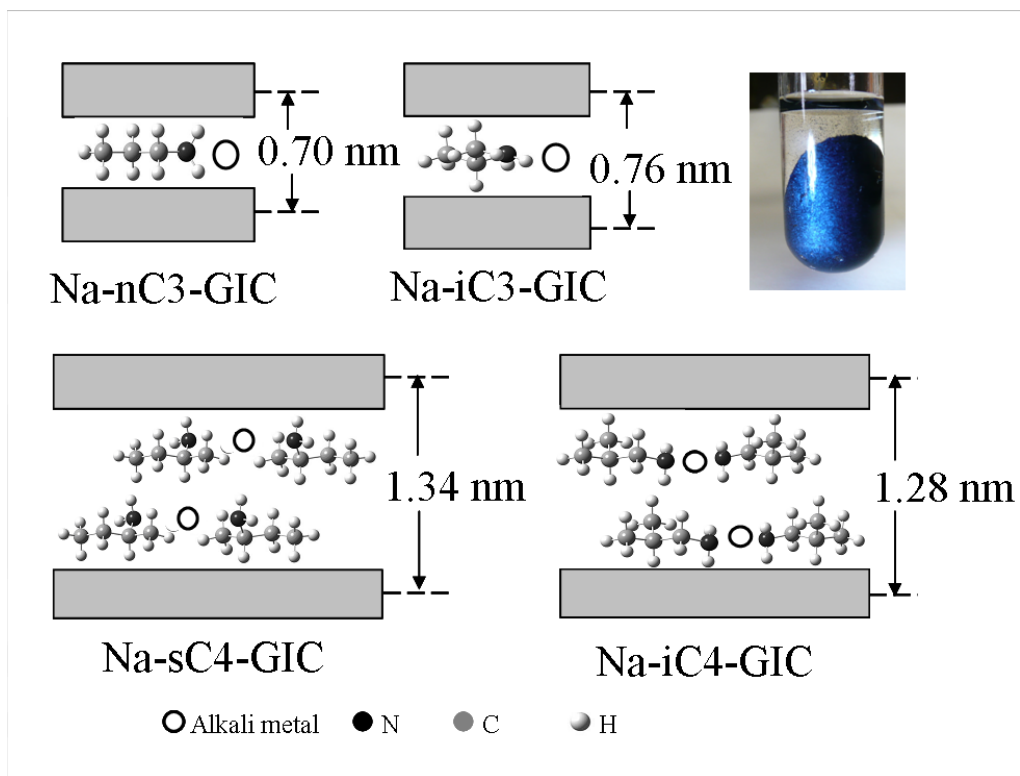


Image from
www.ccs.uky.edu/~ernst

Synthesis of amine GICs

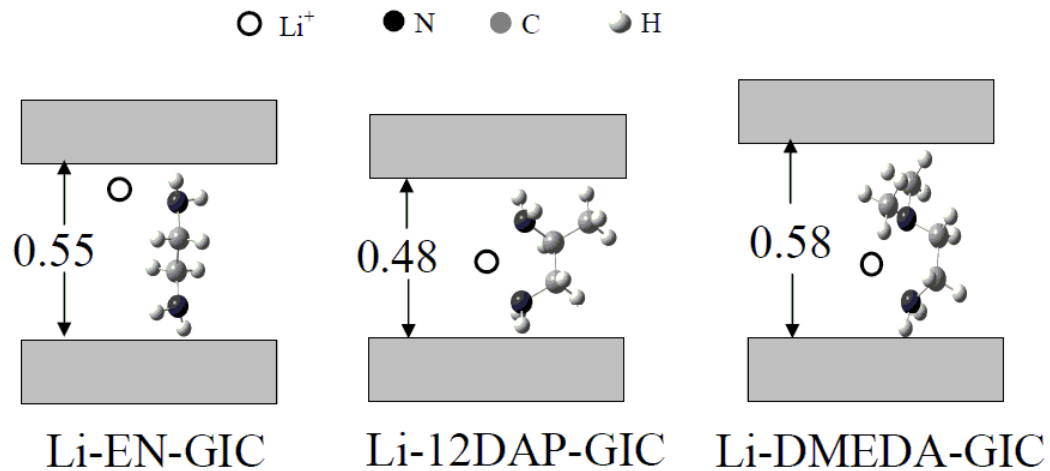


Synthesis of amine GICs



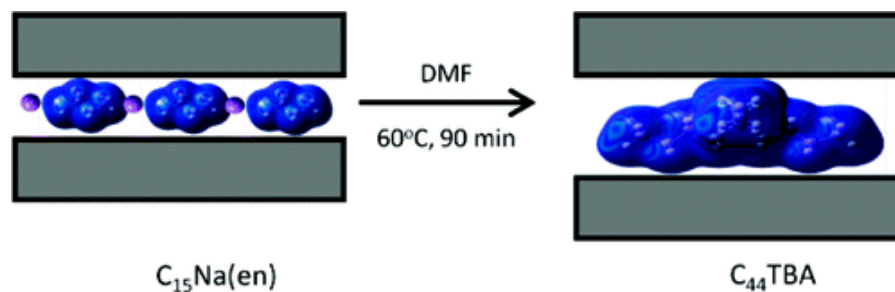
A comparative structural study of ternary graphite intercalation compounds containing alkali metals and linear or branched amines Tosapol Maluangnont, Weekit Sirisaksoontorn and Michael M. Lerner , Carbon **2011**

Synthesis of diamines



Synthesis of Ternary and Quaternary Graphite Intercalation Compounds containing Alkali Metal Cations and Diamines *Tosapol Maluangnont and Michael M. Lerner Inorganic Chemistry* **2011**, *in press*

Synthesis of alkylammonium GICs



Weekit Sirisaksoontorn, Adeniyi A. Adenuga, Vincent T. Remcho, and Michael M. Lerner *J. Am. Chem. Soc.*, 2011