

## Internal Seminar

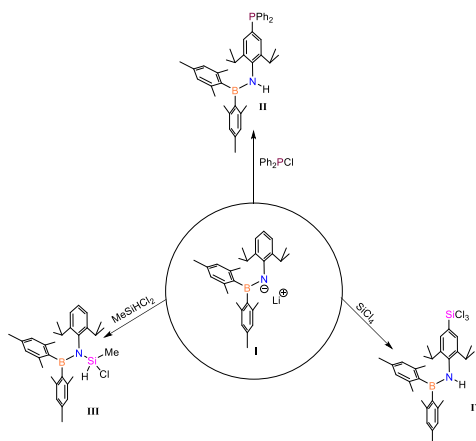
### Contrasting reactivity of (boryl)(aryl)lithium-amide with electrophiles

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In organometallic chemistry the importance/uses of lithium amides, as ligands has been known for main group, transition metals and lanthanide chemistry. In recent years most examples of the latter involve situations where one of the substituent is an aryl group while the other is usually an electronically neutral group such as a Si-containing substituent (-SiR<sub>3</sub>) or an electron-rich Lewis base such as a -PR<sub>2</sub>. Almost in all the cases, electrophiles are attacked by the N-centre of lithium-amide. There are very few examples known where C-substitution prefers above N-substitution.

Here I will present two different reactivity modes of lithium-amide where N-centre is substituted by electron deficient and Lewis acid such as a B-based substituents (-BR<sub>2</sub>). The reaction of in-situ generated lithium (aryl)(boryl)amide, **I** from (aryl)amino(diaryl)borane with MeSiHCl<sub>2</sub> leads to exclusively N-substitution product, **III**. Whereas reaction with SiCl<sub>4</sub> and Ph<sub>2</sub>PCl in a completely different mode and gives exclusively p-aryl-C-substitution products, **II** and **IV**, respectively.



**Monday, Nov 26<sup>th</sup> 2018**

**5:00 PM (Tea/Coffee at 4:30 PM)**

**Seminar Hall, TIFR-H**