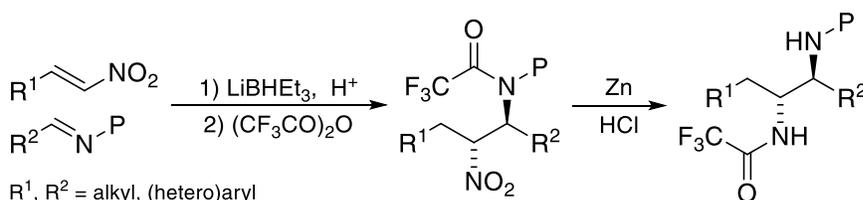


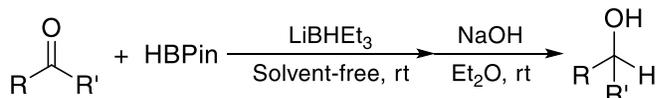
Technical Notes:

1. Used in diastereoselective reductive nitro-Mannich reactions.
2. Starting material for the synthesis of lithium polysulfide, that is used in Li-S batteries for the modification of a light-weight polar host material – graphitic carbon nitride (g-C<sub>3</sub>N<sub>4</sub>).
3. Reducing agent for the synthesis of high-performance FeSe/CoSe nanocomposites for electrochemical oxygen evolution reaction.
4. Catalyst used for solvent-free hydroboration of aldehydes and ketones.
5. Used in the synthesis of 2,6-di- and 2,2',6-trisubstituted morpholines via the reduction of oxabicyclic tetrazoles under mild conditions.
6. Used as co-catalyst in the Co-catalyzed hydrogenations of alkenes, imines, and quinolones.
7. Used for the preparation of luminescent colloidal InSb quantum dots.
8. Reductant used in heavy-metal-free Fischer-Tropsch type reaction via sequential homologation of alkylborane with of CO and hydrides as methylene source.
9. Reductant for synthesis of organolithium precursors by hydride addition, with subsequent preparation of mixed allyl-Cp complexes used as anticancer drugs.

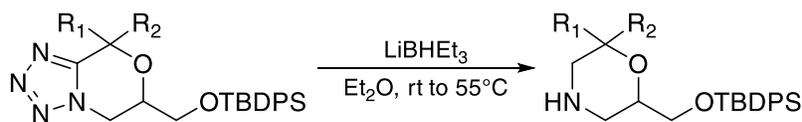


R<sup>1</sup>, R<sup>2</sup> = alkyl, (hetero)aryl  
P = OMB, PMP

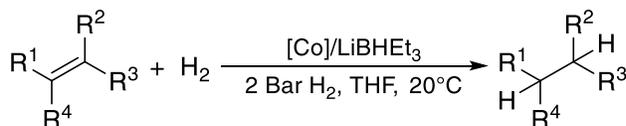
**Tech Note (1)**  
**Ref. (1)**



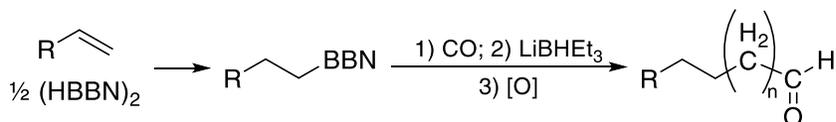
**Tech Note (4)**  
**Ref. (4)**



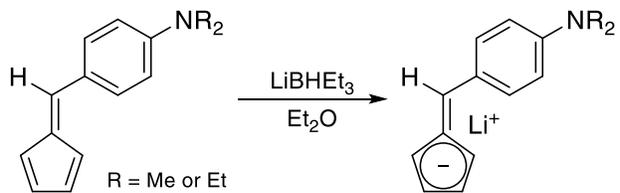
**Tech Note (5)**  
**Ref. (5)**



**Tech Note (6)**  
**Ref. (6)**



**Tech Note (8)**  
**Ref. (8)**



**Tech Note (9)**  
**Ref. (9)**

References:

1. [J. Org. Chem. 2012, 77, 4711.](#)
2. [ACS Nano 2016, 10, 4111.](#)
3. [Electrochim. Acta 2019, 297, 197.](#)
4. [Green Chem. 2019, 21, 1912.](#)
5. [Org. Lett. 2019, 21, 6593.](#)
6. [ACS Catal. 2019, 9, 7596.](#)
7. [ACS Nano 2020, 14, 13146.](#)
8. [J. Am. Chem. Soc. 2020, 142, 14064.](#)
9. [ChemMedChem 2021, 16, 1805.](#)



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