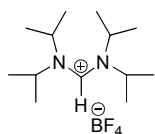
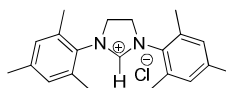




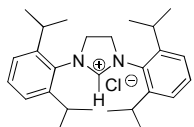
Carbenes



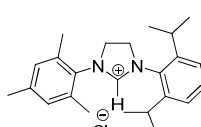
K07-0055
Diisopropylaminomethylidene(diiisopropyl) ammonium tetrafluoroborate, ≥97.0%
 $C_{13}H_{19}BF_4N_2$; F.W: 300.19; [369405-27-6]



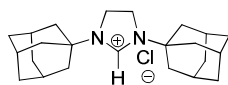
K07-0001
1,3-Bis(2,4,6-trimethylphenyl)-4,5-dihydroimidazolium chloride, ≥97.0%
 $C_{21}H_{27}ClN_2$; F.W: 342.9; [173035-10-4]



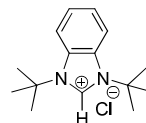
K07-0002
1,3-Bis(2,6-diisopropylphenyl)-4,5-dihydroimidazolium chloride, ≥97.0%
 $C_{27}H_{39}ClN_2$; F.W: 427.06; [258278-25-0]



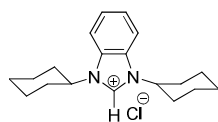
K07-0008
1-(2,6-diisopropylphenyl)-3-(2,4,6-trimethylphenyl)-4,5-dihydroimidazolium chloride, ≥97.0%
 $C_{24}H_{33}ClN_2$; F.W: 384.99; [866926-59-2]



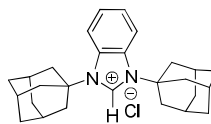
K07-0003
1,3-Bis(1-adamantyl)-4,5-dihydroimidazolium chloride, ≥97.0%
 $C_{23}H_{35}ClN_2$; F.W: 374.99; [871126-33-9]



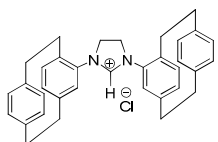
K07-0019
1,3-Di-tert-butylbenzimidazolium chloride, ≥97.0%
 $C_{15}H_{23}ClN_2$; F.W: 266.81; [946607-10-9]



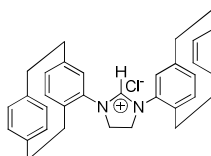
K07-0018
1,3-Dicyclohexylbenzimidazolium chloride, ≥97.0%
 $C_{19}H_{27}ClN_2$; F.W: 318.88; [1034449-15-4]



K07-0017
1,3-Bis(1-adamantyl)-benzimidazolium chloride, ≥97.0%
 $C_{27}H_{35}ClN_2$; F.W: 423.03; [852634-41-4]



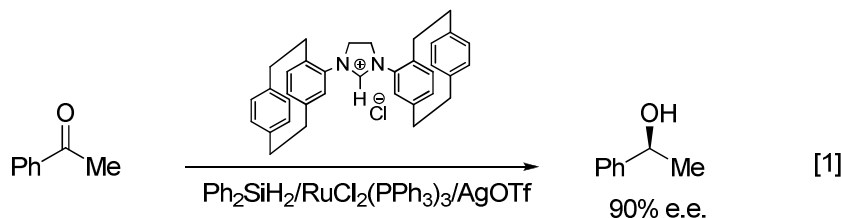
K07-0096
(S)-4,5-Dihydro-1,3-bis-([2.2]paracyclophan-4-yl)imidazolium chloride, ≥97.0%
 $C_{35}H_{35}ClN_2$; F.W: 519.12

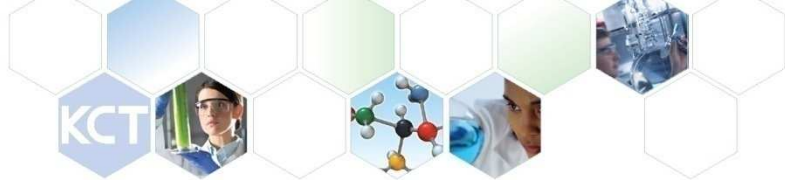


K07-0097
(R)-4,5-Dihydro-1,3-bis-([2.2]paracyclophan-4-yl)imidazolium chloride, ≥97.0%
 $C_{35}H_{35}ClN_2$; F.W: 519.12

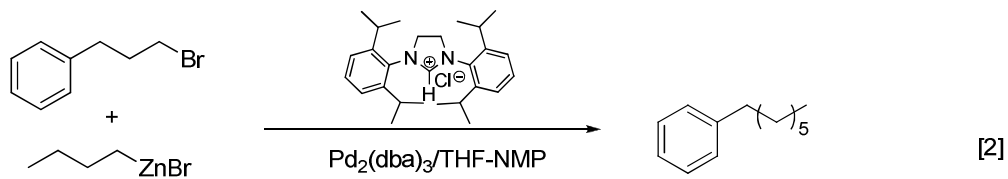
The importance of N-Heterocyclic Carbenes (NHC) in C-C and C-X bond formation reactions is widely recognized¹ and Kanata Chemical Technologies offers a variety of chiral and achiral established NHC precursors as part of its portfolio. Some representative examples are depicted in reactions 2-4.¹⁻⁴ Recently, Acyclic Diamino Carbenes (ADC) have been established as capable ligands in bond forming protocols such as Suzuki-Miyaura, Sonogashira and Heck couplings (reaction 1).⁵ ADC precursors are also available from KCT.

Enantioselective Diphenylsilane Mediated Reduction of Ketones:²

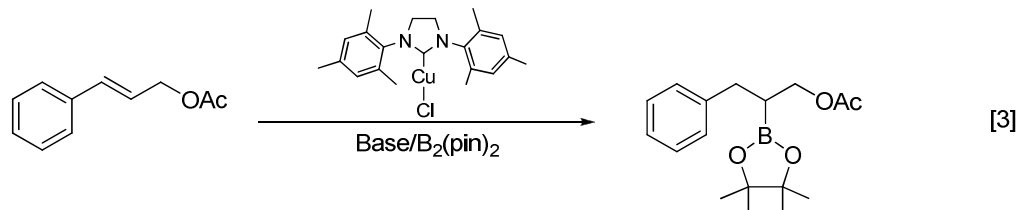




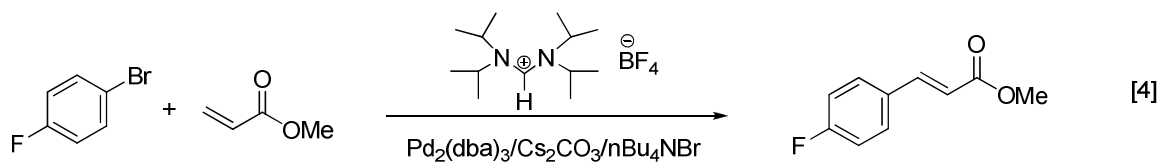
Negishi Cross-Coupling of Aryl Bromides and Alkyl Organozinc Reagents:³



Hydroboration of Substituted Alkenes:⁴



Heck Coupling Reaction:⁵



References

1. *N-Heterocyclic Carbenes in Synthesis*, ed. S. P. Nolan, Wiley-VCH, Weinheim, 1st edn, **2006**.
2. Song, C. *et al. Tetrahedron Lett.* **2005**, *46*, 3241.
3. Hadei, N. *et al. J. Org. Chem.* **2005**, *70*, 8503.
4. Lee, Y. *et al. J. Am. Chem. Soc.* **2009**, *131*, 3160.
5. Dhudisia, B. *et al. Chem. Commun.* **2006**, 668.