

# Synthesis of Boron-Centered Heteroscorpionates by Metathesis Reactions of LiTp\* with Heterocycles

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One of three equivalent pyrazole rings of the scorpionate KTp\* can be replaced with a benzotriazole ring. The goal is to determine the generality of the metathesis method for the synthesis of boron-centered heteroscorpionate ligands. The variables investigated include the counterion ( $K^+$  vs.  $Li^+$ ), solvent (DMF vs. toluene), and incoming aromatic ring (benzotriazole vs. 1,2,3-triazole, 1,2,4-triazole and 2-mercapto-1-methylimidazole). When the incoming ring is 1,2,3-triazole, the resultant LiTp'' ligand forms cis and trans isomers of the form  $L_2Ni$  where  $L = Tp''$ . Analogous studies, which use different incoming heterocycles, and in which the  $L_2Cu$  complexes were synthesized, will also be reported.