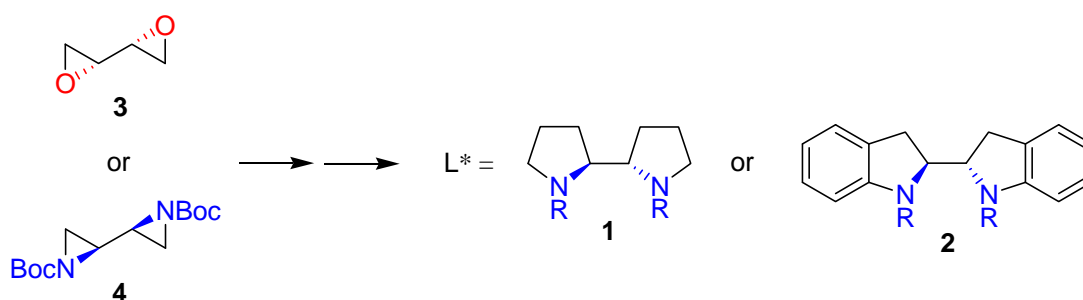


The Synthesis of Chiral Diamine Ligands for Stereoselective Metal Catalysed Reactions

The most common method to form the biaryl bond is the metal catalysed coupling of the two individual aryl units. Currently, stereoselective versions of these reactions to produce axially chiral biaryls are underdeveloped, particularly palladium catalysed cross-coupling. Therefore we are investigating the design and stereoselective synthesis of chiral ligands (L^*) for these reactions, including bipyrrolidine **1** and the previously unreported biindoline **2**, using bioxirane **3** and biaziridine **4** as the key building blocks.



Preliminary results obtained in synthetic efforts towards the phosphine and arsine analogues of **1** and **2** will also be discussed.