**Efficient Stereoselective Access to Tetrafunctionalized 2-Imidazolines**

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**Abstract:**

The collective chemistry community has long been flooded with information about the extensive class of nitrogen-containing heterocycles. Many of these compounds show impressive versatility in their properties and applications. One such sub-class of heterocyclic rings are the 2-imidazolines. These compounds appear at the core of a number of biologically important compounds and are widely used in various synthetic applications.\(^1\)\(^-\)\(^3\) One challenge, in particular, that faces synthetic chemists is the assembly of tetrafunctionalized 2-imidazolines. Although a number of direct methods to synthesize these compounds exist, either the yield or stereoselectivity is left lacking.\(^4\)\(^-\)\(^7\) Based on previously developed work, Romano Orru’s laboratory has developed a diastereoselective one-pot synthesis of tetrafunctionalized 2-imidazolines that proceeds by both direct and stepwise methodologies.\(^8\)\(^-\)\(^9\) Rationalization of the stereoselectivity of this reaction and initial exploration of the mechanistic pathway were performed by both computational and experimental means.

**References:**