

One-Pot Synthesis of Benzimidazo[2,1-b]thiazoline Derivatives through an Addition/Cyclization/Oxidative Coupling Reaction

Olivia Lamberston Chemistry Senior Seminar

A novel and efficient approach to the synthesis of benzimidazo[2,1-b]thiazoline derivatives has been developed through an addition/cyclization/intramolecular oxidative C–H functionalization process. A variety of alkylene benzimidazo[2,1-b] thiazolines were conveniently assembled from the reaction of aryl isothiocyanate and propargylic amine in the presence of Cu(OAc)₂ and PIFA at room temperature. The product could be further converted to substituted benzimidazo[2,1-b]thiazole derivatives.