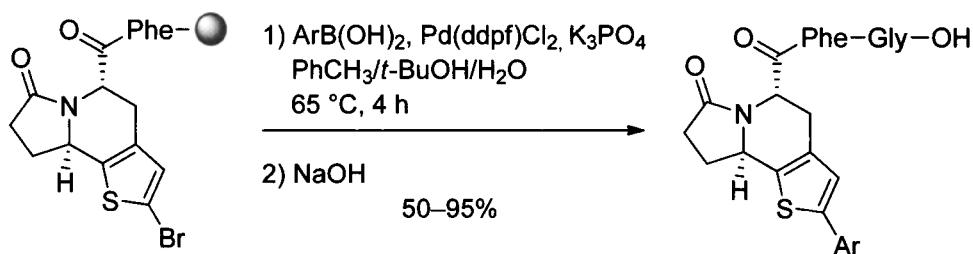


The Suzuki–Miyaura reaction has proven useful for synthetic chemists in the formation of aryl–aryl bonds. Benefits include generally mild reaction conditions, compatibility with most functional groups, and the use of readily available boronic acids known for their stability. In the reaction shown below, Meldal and co-workers reported a palladium-catalyzed Suzuki cross-coupling reaction of a bromothiophene using a solid-phase synthesis protocol.⁹³



Like Larock, Flynn and co-workers utilized various electrophilic cyclization reactions to produce desirable halo-benzothiophenes for use in cross-coupling reactions. The following benzothiophene synthesis involved a Suzuki cross-coupling reaction to form new aryl–aryl bonds at the C3 position. The product has been investigated in the search for potent tubulin-binding agents.⁹⁴

