

One-pot two-step cross-coupling approach towards the synthesis of novel unsymmetrical polycarbo-substituted imidazo[1,2-c]quinazolines

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We are currently interested in the synthesis of polycarbo-substituted imidazo[1,2-c]quinazolines because compounds bearing this heterocyclic moiety exhibit a wide range of biological and photophysical properties. These compounds are accessible via the condensation 4-chloroquinazolines with aminoalkanols or imidazole derivatives with aromatic aldehyde. Despite their efficiency, these method cannot be adapted for the synthesis of imidazo[1,2-c]quinazolines bearing carbon-based substituents on the fused benzo ring. Herein we describe the results of sequential (Sonogashira/ Suzuki-Miyaura) and one-pot two-step (bis-Sonogashira; Sonogashira/ Stille) cross-coupling of the 5-aryl-9-bromo-7-iodo-2,3-dihydroimidazo[1,2-c]quinazolines to afford novel unsymmetrical polycarbo-substituted derivatives.

