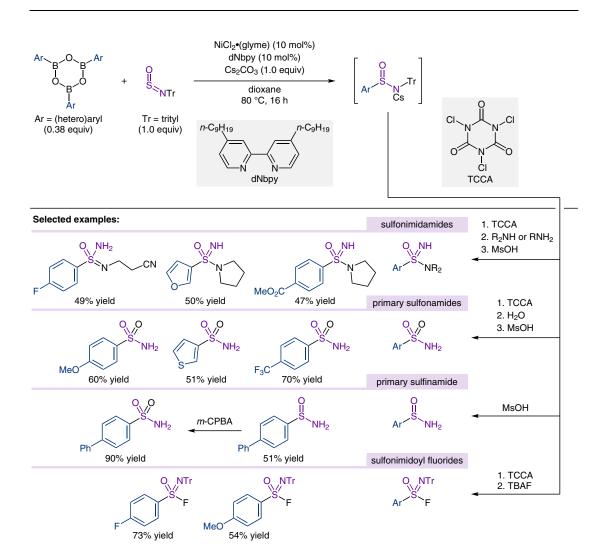
nickel catalysis sulfinylamines

$P.\ K.\ T.\ LO,\ M.\ C.\ WILLIS^*\ (UNIVERSITY\ OF\ OXFORD,\ UK)$

Nickel(II)-Catalyzed Addition of Aryl and Hereoaryl Boroxines to the Sulfinylamine Reagent TrNSO: The Catalytic Synthesis of Sulfinamides, Sulfonimidamides, and Primary Sulfonamides

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Synthesis of Sulfinamides, Sulfonimidamides, and Sulfonamides: A One-Pot Procedure to Rule them All



Significance: A one-pot approach for the synthesis of a variety of sulfinamides and derivatives is presented. Employing a commercially available catalyst and ligand, the catalyst loading can be lowered to 1 mol% for large-scale reactions. Trichloroisocyanuric acid (TCCA) is used as a mild, inexpensive, and safe chlorination agent.

Comment: Boroxines are used as an alternative to moisture- and air-sensitive organometallic reagents, which often exclude a wide range of functional groups. Sulfonimidamides, primary sulfonamides, primary sulfinamides, and sulfonimidoyl fluorides are all obtained in moderate to good yields.

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