

Studies Towards The Synthesis of 2,5-Disubstituted-3-Fluorothiophenes Using a Tandem Directed Ortho Metallation/Nickel Catalyzed Cross-Coupling Approach

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2,5-Disubstituted 3-fluorothiophene derivatives **1** are of interest as building blocks in liquid crystal materials synthesis. This poster details the development of 2-thienyl carbamates **2** and related compounds as flexible building blocks for the construction of 2,5-disubstituted 3-fluorothiophenes. Our approach involves oxidation of 5-substituted 2-thienyl trifluoroborates to the corresponding thienones **3** followed by O-trapping of the corresponding enolate as the 2-thienyl carbamate **2**. Studies aimed at the elaboration of **2** to 2,5-disubstituted 3-fluorothiophenes **1** using a sequential directed ortho-metallation/fluorination/Ni-catalyzed cross-coupling approach will be presented.

