Synthesis and Intramolecular Cyclization of Substituted 4-(Het)aryl-4-oxo-2-thienylaminobut-2-enoic Acids Containing Nitrile Group in the Thiophene Ring

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Abstract—A method for the synthesis of substituted 4-(het)aryl-4-oxo-2-thienylaminobut-2-enoic acids containing a nitrile substituent in the thiophene ring was proposed. Intramolecular cyclization of the obtained compounds in the presence of propionic anhydride leads to the formation of new substituted 3-thienylimino-3*H*-furan-2-ones.

Keywords: Gewald thiophenes, 2,4-dioxobutanoic acids, 3-(thiophen-2-yl)iminofuran-2(3*H*)-one

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