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Poster Presentation

An Interaction of Acetylenedicarboxylates and Bromomaleimides with Thioureas

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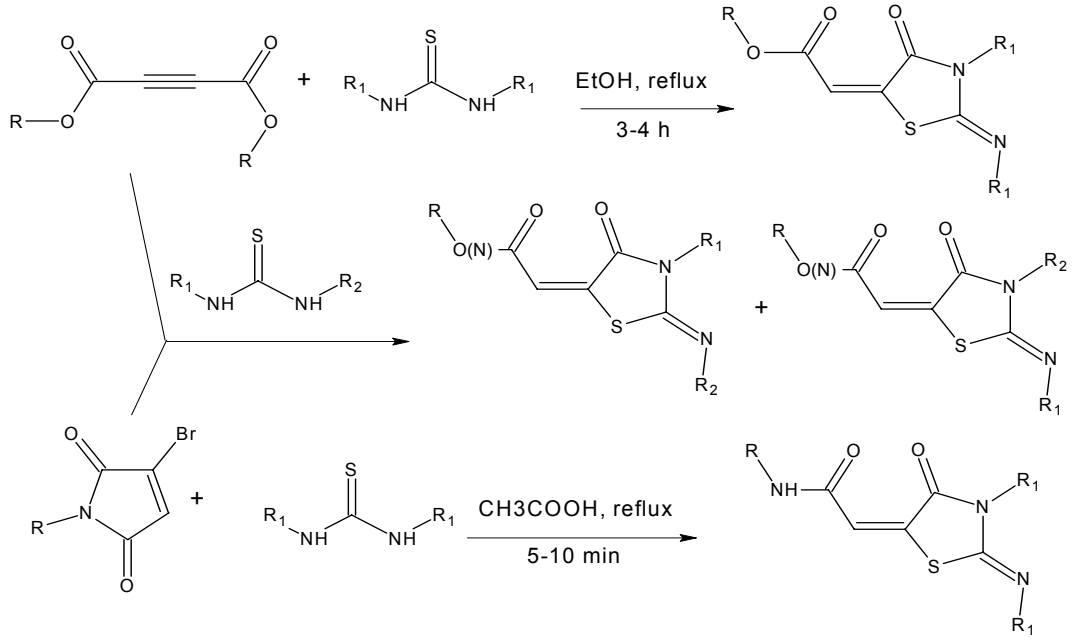
As a further development of combinatorial libraries based on a products of reaction of thioureas with maleimides we proposed to use acetylenedicarboxylates and bromomaleimides as electrophiles in reaction with thioureas.



R, R_1, R_2 = Alk, Ar

At that, as expected, it was found the greater reactivity of electrophiles in reactions with unsymmetrical thioureas leads mainly to mixtures of isomeric 1,3-thiazolidinones. However varying of the reaction conditions allowed to obtain a series of 3-alkyl-5-methylene-2-arylimino-1,3-thiazolidin-4-one derivatives from N-alkyl-N'-arylthioureas and methyl acetylenedicarboxylate (DMAD) with moderate yields, while symmetrical thioureas with bromomaleimides react quickly and lead to desired products with high yields. The structures were confirmed by NMR-spectrometry and X-ray analysis.