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α,α-Dibromoketones As Synthetic Equivalents Of α-Bromoketones For The Synthesis Of Thiazolo[3,2-a]benzimidazoles.

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Abstract:
Utilization of α,α-dihalocarbonyl compounds as synthetic equivalents to α-halocarbonyl compounds has been explored in the synthesis of a wide range of highly useful heterocycles and αfunctionalized ketones. The continuously growing demand of α,α-dibromoketones, as highly reactive and mild synthetic precursors/intermediates, to carry out selective organic transformations, prompted us to investigate their potential application for the synthesis of thiazolo[3,2-a]benzimidazoles. In this study, a remarkable application of α,α-dibromoacetophenones 5a-g in the development of a facile protocol for the synthesis of thiazolo[3,2-a]benzimidazoles 4a-g by avoiding the use of lachrymatory αhaloketones is described. Although the mechanism for the debromination from the intermediate compound 6 under these conditions is not confirmed, possible pathways have been suggested.