Direct and facile synthesis of acyl isothicyanates from carboxylic acids using trichloroisocyanuric acid/triphenylphosphine system

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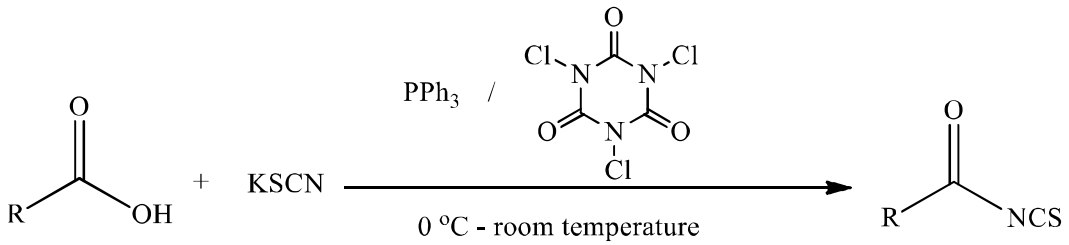
Acyl isothiocyanatesare important intermediates in organic chemistry. They are important sulfur-containing compounds for the synthesis of heterocycles.[1]There are several ways to synthesis acyl isothiocyanates but most of them have some drawbacks such as long time of the reaction, use of expensive and hazardous reagent.

By considering the activity oftrichloroisocyanuric acid (TCCA) as an electron deficient andN-haloreagent towards TPP and in continuation of our recent works[2], in this study,a new method of preparation of acyl isothiocyanates by using trichloroisocyanuric acid/triphenylphosphine / KSCNsystem is described.Acyl isothiocyanates are produced directly from differentcarboxylic acids by using a safe andinexpensive mixed reagents. Moreover, availability of the reagents and easy workup of the reaction make this method attractive for organic chemists.



References

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