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Synthesis and Characterization of Mikanecic acid diesters using different Catalysts and Their Comparison study

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Abstract: Catalysts are used to make changes easier in the organic synthetic mechanism. Catalysts are involved in the process of chemical changes by reducing time and making it faster to get things done. Catalysts play a vital role in organic synthesis with a novel method for the synthesis of a terpenoid, Mikanecic acid diester. In this research we are using kaolin clay catalyst, potassium carbonate and Potassium iodide to synthesis Baylis-Hillman adducts (alkyl-3-hydroxy-2-methylenepropanoates reacts with aldehyde with a variety of acrylates catalyzed in presence of $TiCl_4$). Mikanecic acid diesters obtained from 1,3-butadiene-2-carboxylate of (Diels-Alder type) self-dimerization occur in the presence of different catalysts. The yield which we obtained is in good ratio. However K_2CO_3 Catalyst gave good yield and reduces the reaction time. In this study, Tertiary butyl acrylate resulted with good yield than the others.
Key Words: Mikanecic acid diester, K_2CO_3, KI, Kaolin clay, Comparison study.

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