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Convenient and Mild Method for Acylation of Betulin using Tetraacetyl Glycoluril

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Abstract: Betulin was reacted with tetraacetyl glycoluril at room temperature in the presence of paratoluenesulfonic acid to produce corresponding diacetate with good yield. The acetylation of betulin was also carried out using mechanochemical method in the presence para toluene sulfonic acid to yield diacetate betulin, while in the presence of formic acid the formylation took the place of acetylation, which gave allobetulin formiate. The reaction time for classical reaction was 2 hours, while for mechanochemical method the time was 5 to 15 minutes. The solvents used in these reactions were chloroform and dioxane.

Keywords: Betulin, Acylation, Glycoluril, Mechanochemistry, betulin Diacetate.

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