

Recent advances in application of pyridinium chlorochromate (PCC) in organic synthesis

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Abstract

Pyridinium chlorochromate (PCC) is an important reagent in organic synthesis used primarily for the selective oxidation of alcohols to give carbonyl compounds. Although a variety of related compounds are known with similar reactivity, PCC offers exclusively the advantage of the selective oxidation of alcohols to aldehydes, whereas many other reagents were less selective. Disadvantages of using PCC are the tedious reaction workup and its toxicity, very well compensated by selective oxidation, observed using this reagent as an oxidant. This useful oxidant was first synthesized and used by E. J. Corey and J. William Suggs in 1972.

Keywords

Alcohol, Carbonyl compounds, Organic synthesis, carbon, Oxidation, Pyridinium chlorochromate (PCC), Selective oxidation.