Triethyloxonium Tetrafluoroborate/1,2-Dimethoxyethane – a Versatile Substitute for Trimethyloxonium Tetrafluoroborate in \(O\)-Methylation Reactions

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Z. Naturforsch. 2009, 64b, 427 – 433; received December 18, 2008

The triethyloxonium tetrafluoroborate/1,2-dimethoxyethane (TEO/DME) mixture is a versatile and cheap substitute for trimethyloxonium tetrafluoroborate in \(O\)-methylations of pyrrolin-2-ones, quinolones, acidones, and 1-oxo-\(\beta\)-carbolines. Undesired \(O\)-ethylation can be avoided by pre-incubation of triethyloxonium tetrafluoroborate and 1,2-dimethoxyethane for 1 h, prior to addition of the substrate. In the course of these investigations it was found that the structures assigned to the alkaloids taraxacine A and B are erroneous.

Key words: Triethyloxonium Tetrafluoroborate, \(O\)-Methylation, Pyridones, Alkaloids, Pyrrolin-2-ones