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## A mild and efficient H<sub>2</sub>O<sub>2</sub> oxygenation of N-heteroaromatic compounds to the amine N-oxides and KI deoxygenation back to the tertiary amine with hexaphenyloxodiphosphonium triflate

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## Abstract

A mild and efficient method for the oxidation of N-heteroaromatic compounds to the corresponding N-oxides using  $H_2O_2$  in the presence of hexaphenyloxodiphosphnium triflate (Hendrickson reagent) in EtOH at room temperature was reported. This methodology presented relatively fast and selective reactions to afford the N-oxides in good yields. The reverse reactions, deoxygenation reactions, were also carried out under the same reaction conditions by KI to produce the tertiary amines.

**Keywords:** Oxidation, N-Heteroaromatic compound, N-Oxide, Hydrogen peroxide, Hexaphenyloxodiphosphonium triflate.