

Oxidation of Alkenes with Hydrogen Peroxide, Catalyzed by Boron Trifluoride. Synthesis of Vicinal Methoxyalkanols

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Abstract—In oxidation of alkenes with the $\text{BF}_3\text{--H}_2\text{O}_2$ system, boron trifluoride induces transfer of available oxygen from hydrogen peroxide, accompanied by the formation of epoxides. The oxidation in methanol occurs as a one-pot two-step process involving epoxidation of the C=C bond followed by opening of the oxirane ring, with the formation of methoxyalkanols.

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