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A Study of Olefin-Epoxyde Cyclizations Catalyzed by Metal Triflates

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Poster Presentation P2

A STUDY OF OLEFIN-EPOXIDE CYCLIZATIONS CATALYZED BY METAL TRIFLATES

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An effective method for the synthesis of carbocyclic compounds is cyclization initiated by electrophilic ring-opening of polyene epoxides. These cyclizations occur rapidly in the presence of a variety of Lewis acids, such as TiCl_4 , and $\text{BF}_3 \cdot \text{Et}_2\text{O}$. The cyclization of geraniolene oxide **1** (easily obtained from commercially available geraniolene) catalyzed by a variety of metal triflates such as $\text{Bi}(\text{OTf})_3$, $\text{Sc}(\text{OTf})_3$ and $\text{Yb}(\text{OTf})_3$ will be investigated. The reaction of the saturated analog will also be investigated in the presence of various metal triflates. Preliminary results from this study will be presented.

