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**POLYMERIZATION OF MATERIALS RESULTING FROM AGRO-RESOURCES WITH BOROHYDRIDO LANTHANIDE COMPOUND**

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Terpenes and lactide belong to the molecules of origin natural to develop. The controlled polymerization of monomers resulting from these two families by homogeneous catalysis, lead to making of new natural homo and co-polymers.

Myrcene is a natural conjugated terpene. The Polymerization of myrcene was achieved by Ziegler-Natta catalysts ( $\text{TiCl}_3/\text{Al}(\text{iBu})_3$ , V) in an organic solvent [1], or by free radical emulsion polymerisation [2].

Lanthanide compounds are of great interest in catalysis, especially for polymerization [3-4].  $\text{Ln}(\text{BH}_4)_3/\text{MgR}_2$  combinations have proved to be highly efficient toward isoprene or styrene homo- and co-polymerisation [5-6].

We have used this type of catalyst for the polymerization of Myrcene and co-polymerization with other monomers such as lactide. The results obtained show the catalytic system efficiency.