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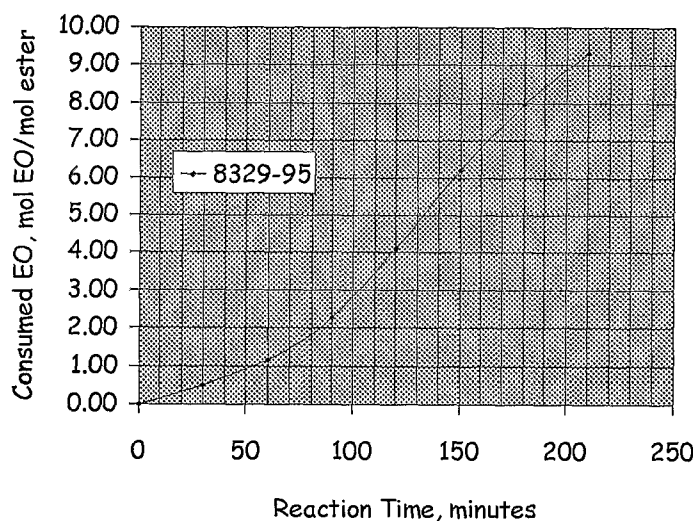
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(54) Title: ALKALINE EARTH-BASED ALKOXYLATION CATALYSTS

"GEO-2" Catalyst Evaluation



(57) Abstract: Provided herein are catalysts useful in enabling and promoting the insertion of alkylene oxides into ester linkages. The esters employed as a substrate to be alkoxyated include esters of fatty acids, such as methyl esters of C₁₄ to C₂₂ fatty acids, and mono-, di-, and tri-esters of glycerine, including vegetable oils, animal fats, and plant oils. A catalyst according to the invention includes at least two alkaline earth compounds, which may include any known stable compounds of the alkaline earths, and optionally contains one or more additional materials such as a carboxylic acid or a polyalkylene glycol having a molecular weight between about 100 and 1500 or a C₁ - C₁₀ alkyl-capped polyalkylene glycol having molecular weight between about 100 and 1500, which has been acidified with a strong mineral acid. The preferred alkaline earths employed are salts and compounds of magnesium and calcium.

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