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NEW CATALYSTS USED IN THE HYDROGENOLYSIS REACTION OF GLYCEROL

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Abstract

The catalytic hydrogenolysis of glycerol, a by-product of the bio-diesel manufacturing process, was studied on copper chromite catalysts with different chemical composition. The obtaining of propylene glycol was studied under mild reaction conditions (180-240°C temperature range, 8 hours reaction time and moderate pressures). These important parameters have significant effects on the glycerol conversion and that is way the actual study was concerned to the obtaining of a superior selectivity to propylene glycol by optimizing the reaction conditions. The water content in the raw material seems to damage the process development, coming out the requirement to use small amounts of water in order to achieve an increased reactor productivity.

Key words: bio-diesel, copper chromite catalysts, glycerol, propylene glycol

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