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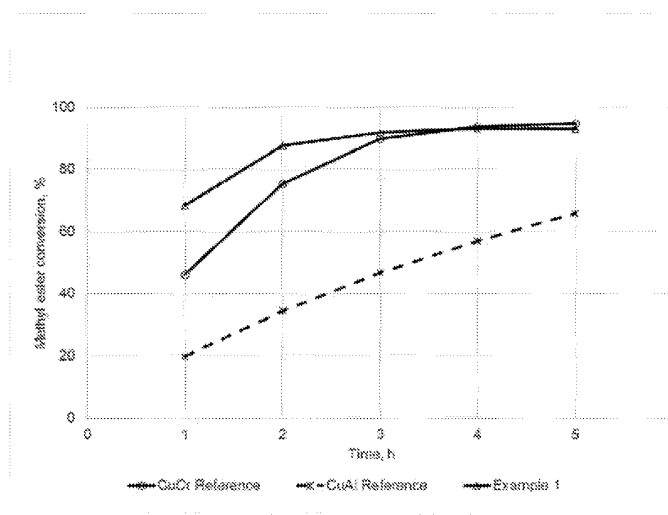
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(54) Title: CHROME-FEE COPPER-CALCIUM SILICATE CATALYSTS FOR FATTY ESTER HYDROGENOLYSIS/HYDROGENATION

FIG. 5



(57) Abstract: A hydrogenolysis/hydrogenation catalyst includes copper oxide, calcium oxide, silicon dioxide, and sodium oxide, wherein the hydrogenolysis/hydrogenation catalyst is a powder, tablet, or extrudate, the hydrogenolysis/hydrogenation catalyst is substantially free of chromium, the hydrogenolysis/hydrogenation catalyst exhibits a crystallite phase of CuO and an additional crystallite phase selected from the group consisting of cubic SiO₂, rhombohedral calcium carbonate CaCO₃, anorthic calcium silicate CaCO₃, calcium silicate hydroxide hydrate (Ca₁₄Si₂₄O₅₈(OH)₈·2H₂O), calcium silicate hydrate 4CaO·5SiO₂·5H₂O, alumina, and combinations of two or more thereof.

[Continued on next page]

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