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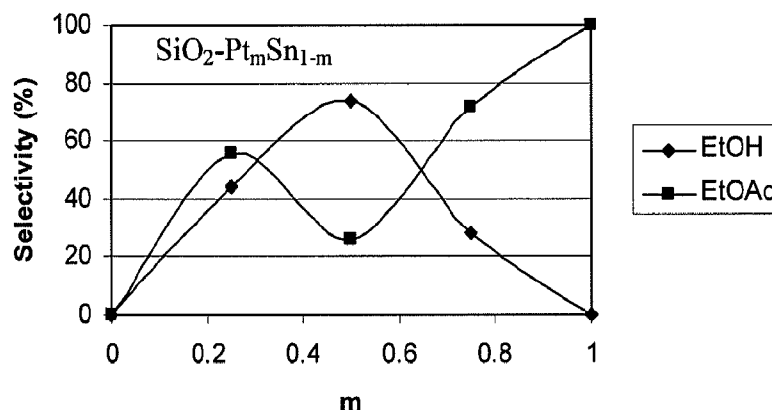
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(54) Title: PROCESSES FOR MAKING ETHANOL FROM ACETIC ACID

FIG. 1A - Selectivity Pt/Sn Catalyst



(57) Abstract: A process for selective formation of ethanol from acetic acid by hydrogenating acetic acid in the presence of first metal, a siliceous support, and at least one support modifier. Preferably, the first metal is selected from the group consisting of copper, iron, cobalt, nickel, ruthenium, rhodium, palladium, osmium, iridium, platinum, titanium, zinc, chromium, rhenium, molybdenum, and tungsten. In addition the catalyst may comprise a second metal preferably selected from the group consisting of copper, molybdenum, tin, chromium, iron, cobalt, vanadium, tungsten, palladium, platinum, lanthanum, cerium, manganese, ruthenium, rhenium, gold, and nickel.



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