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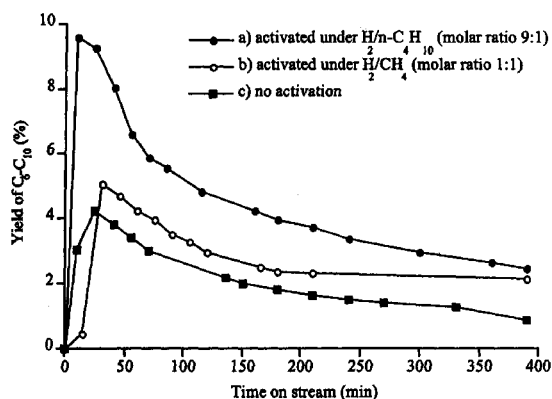
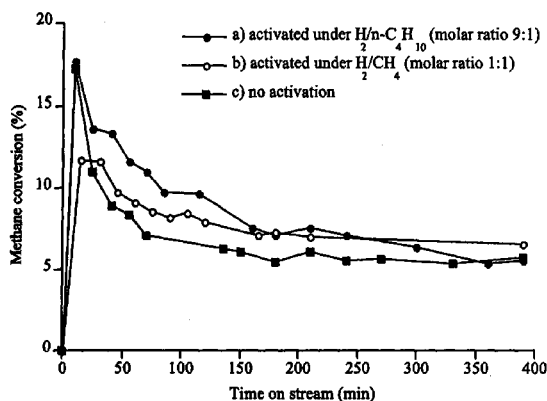
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(54) Title: CATALYST AND PROCESS FOR AROMATIC HYDROCARBONS PRODUCTION FROM METHANE

(57) Abstract: A molybdenum-loaded crystalline aluminosilicate molecular sieve that exhibits the MFI crystal structure and has a silica-to-alumina ratio of about 50:1 is useful for aromatizing a hydrocarbon feed stream. The crystalline aluminosilicate preferably has an external surface acidity selectively passivated by means of an amorphous silica layer. A process for the aromatization of methane comprises a one- or multi-step process that contacts a feed stream comprising at least methane with a catalyst composition comprising the preferred molecular sieve, at hydrocarbon conversion conditions that include a temperature of 600-800 °C, a pressure of less than 5 atmospheres absolute and a Weight Hourly Space Velocity (WHSV) of 0.1-10 h⁻¹, with the external surface acidity of the crystalline aluminosilicate preferably selectively passivated by an amorphous silica layer. C₆-plus aromatic hydrocarbons are preferably recovered from the process by means of an intermediate separation step.



IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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