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(21) International Application Number: PCT/US99/11325 (22) International Filing Date: 21 May 1999 (21.05.99) (30) Priority Data: 09/099,626 18 June 1998 (18.06.98) US (71) Applicant: EXXON RESEARCH AND ENGINEERING COMPANY [US/US]; 180 Park Avenue, P.O. Box 390, Florham Park, NJ 07932-0390 (US). (72) Inventors: BRIGNAC, Garland, Barry; 13598 Hwy. 10, Clinton, LA 70722 (US). KAUFMAN, Jeffrey, Lawrence; 2807 Cedarville Drive, Kingwood, TX 77345 (US). COKER, John, Calvin; 4533 Inniswold, Baton Rouge, LA 70809 (US). (74) Agents: NAYLOR, Henry, E. et al.; Exxon Research and Engineering Company, P.O. Box 390, Florham Park, NJ 07932-0390 (US).		(81) Designated States: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, ZA, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: TWO STAGE HYDRODESULFURIZATION PROCESS		
(57) Abstract <p>A process for hydrodesulfurizing naphtha feedstreams wherein the reactor inlet temperature is below the dew point of the feedstock at the reactor inlet so that the naphtha will completely vaporize within the catalyst bed. It is preferred to use a catalyst comprised of about 1 to about 10 wt.% MoO₃, about 0.1 to about 5wt.%CoO supported on a suitable support material. They are also characterized as having an average medium pore diameter from about 60 Å to 200 Å, a Co/Mo atomic ratio of about 0.1 to about 1.0, a MoO₃ surface concentration of about 0.5 x 10⁻⁴ to about 3.0 x 10⁻⁴g MoO₃/m², and an average particle size of less than about 2.0mm in diameter.</p>		