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(21) International Application Number: PCT/US97/15137 (22) International Filing Date: 28 August 1997 (28.08.97) (30) Priority Data: 08/717,934 23 September 1996 (23.09.96) US (71) Applicant: CHEMICAL RESEARCH & LICENSING COMPANY [US/US]; 10100 Bay Area Boulevard, Pasadena, TX 77507 (US). (72) Inventors: GILDERT, Gary, R.; 10100 Bay Area Boulevard, Pasadena, TX 77507 (US). PUTMAN, Hugh, M.; 10100 Bay Area Boulevard, Pasadena, TX 77507 (US). HEARN, Dennis; 10100 Bay Area Boulevard, Pasadena, TX 77507 (US). (74) Agent: JOHNSON, Kenneth, H.; P.O. Box 630708, Houston, TX 77263 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>

(54) Title: PROCESS FOR CONCURRENT SELECTIVE HYDROGENATION OF ACETYLENES AND 1,2 BUTADIENE IN HYDROCARBON STREAMS

(57) Abstract

A process for the removal of vinylacetylene, ethylacetylene and 1,2-butadiene from C₄ aliphatic hydrocarbon streams comprising, concurrently: (1) feeding hydrogen and a hydrocarbon stream comprising C₄ hydrocarbons including butanes, butenes, butadienes and vinylacetylene to a distillation column reactor containing a bed comprising a hydrogenation catalyst of the type characterized by platinum, palladium or rhodium which is prepared as a distillation structure to selectively hydrogenate a portion of the vinylacetylene and the 1,2-butadiene and (2) fractionally distilling the reaction mixture to remove a heavier fraction and removing a fraction overhead comprising substantially all of the C₄.

