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(21) International Application Number: PCT/US98/08688 (22) International Filing Date: 29 April 1998 (29.04.98) (30) Priority Data: 08/850,358 2 May 1997 (02.05.97) US (71) Applicant: EXXON RESEARCH AND ENGINEERING COMPANY [US/US]; P.O. Box 390, 180 Park Avenue, Florham Park, NJ 07932-0390 (US). (72) Inventors: WITTENBRINK, Robert, J.; 836 Shadyglen Drive, Baton Rouge, LA 70816 (US). KOVEAL, Russell, J., Jr.; 4723 Beech Harbor, Baton Rouge, LA 70817 (US). MURPHY, William, J.; 16445 Coliseum Avenue, Baton Rouge, LA 70816 (US). CODY, Ian, A.; 7942 Wrenwood Boulevard, Baton Rouge, LA 70809 (US). SCHWEIZER, Albert, E.; 2069 West Magna Carta Place, Baton Rouge, LA 70815 (US). (74) Agents: SIMON, Jay et al.; Exxon Research and Engineering Company, P.O. Box 390, Florham Park, NJ 07932-0390 (US).		(81) Designated States: AU, BR, CA, JP, NO, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: PROCESSES, AND CATALYST FOR UPGRADING WAXY, PARAFFINIC FEEDS (57) Abstract <p>An improved catalyst for the production of lube oil blending components, and lube oils, from waxy, paraffinic feeds, a process for producing such catalyst, and a process utilizing this catalyst in the production of lubes. The catalyst is a unitized mixed powder pellet catalyst constituted of a dehydrogenation component, or components, suitably a catalytically active Group VIB, VIIB, or VIII metal, or metals, an isomerization component, suitably an amorphous acidic solid support, and a small pore molecular sieve dewaxing component. The dewaxing component is characterized as a small pore molecular sieve wherein the pore windows are formed by 8 oxide atoms which form the limiting edge of the pore window, each of the oxide atoms constituting one of the four oxide atoms of a tetrahedrally coordinated cluster around a silicon or aluminum framework ion, or atom, each oxide ion is coordinated to two framework ions in these structures, and the pore size of the sieve ranges between about 6.3 Å and 2.3 Å. In preparation of the catalysts, the isomerization component, or the dewaxing component or both, may provide the dehydrogenation function due to the presence of a catalytic metal, or metals, deposited thereon, in which case the components are powdered, the powders mixed together, compressed and formed into solids catalyst shapes comprised of these components. Alternatively, the dehydrogenation function can be added to preformed solids shapes made from powdered dewaxing and isomerization components.</p>		