

Title (en)
IMMOBILIZATION OF VANADIA DEPOSITED ON SORBENT MATERIALS DURING VISBREAKING TREATMENT OF CARBO-METALLIC OILS

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Abstract (en)
[origin: EP0175799A1] A solid sorbent particulate, its method of preparation and use is disclosed for the treatment of a residual hydrocarbon oil feed or a high boiling portion thereof boiling above 1050F DEG and having a significant content of asphaltenes, Conradson carbon metals such as Ni, V, Fe and Cu to provide a higher grade of oil products by contacting the feed comprising metal contaminants and high carbon forming constituents with a high pore volume sorbent material of at least 0.4 cc/g in a visbreaking zone in which operation the effectiveness of the high pore volume sorbent material is further improved by a metal additive to immobilize low melting point vanadium compounds. The sorbent material pore volume, sorbent to oil ratio and operating conditions are such that the volume of sorbent pores filled with oil feed is limited to the range of 1/4 to 2/3 and along with carbonaceous material metal contaminants are encouraged to deposit within the pores rather than on the exterior surface of the solid sorbent in a hydrothermal visbreaking operation in the absence of added molecular hydrogen.

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Cited by
EP0489974A1; EP0319626A1; EP1062296A4; US7967976B2; WO2005025743A1; US7332636B2; US7125821B2; US9724302B2; US9730892B2; US9737483B2; US9737482B2; US9757336B2; US9808424B2; US10045941B2; US10398648B2

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