

Title (en)

PROCESS FOR THE HYDROCONVERSION OF HEAVY OILS, RESIDUAL OILS AND WASTE OILS, MIXED WITH SEWAGE SLUDGE

Publication

**EP 0314992 A3 19900117 (DE)**

Application

**EP 88117529 A 19881021**

Priority

DE 3737370 A 19871104

Abstract (en)

[origin: EP0314992A2] In the process for the hydroconversion of heavy and residual oils, spent and waste oils mixed with sewage sludges in a typical liquid-phase hydrogenation with hydrogen-containing gases with addition of a finely ground material, this additive preferably has a large internal surface area. <??>Industrial and also municipal sewage sludges frequently contain problematic constituents which preclude disposal by application to fields in agriculture or landfill or by combustion and pyrolysis processes. <??>The additive is added in two different grain size ranges, in such a way that a part of the additive is a fine-grained fraction having a grain size of 90  $\mu$ m or less and another part is a coarse-grain fraction of a grain size from 100  $\mu$ m to 2000  $\mu$ m, preferably 100 to 1000  $\mu$ m, and that the process is carried out at a weight ratio of the feed oils and the sewage sludges used of 10 : 1 to 1 : 1.5. <??>The process is used for converting the vacuum residue from a Venezuelan heavy oil with addition of 2% by weight of lignite coke as an additive and admixing of 10% by weight of sewage sludge in a liquid-phase hydrogenation to obtain, in particular, useful liquid products and extensive conversion of the organic fractions of the sewage sludge.

IPC 1-7

**C10G 47/26**; **C10G 1/08**

IPC 8 full level

**C10G 47/00** (2006.01); **C10G 47/26** (2006.01); **C10M 175/00** (2006.01)

CPC (source: EP US)

**C10G 47/26** (2013.01 - EP US); **C10M 175/0041** (2013.01 - EP US)

Citation (search report)

- [E] EP 0287796 A1 19881026 - VEBA OEL ENTWICKLUNGS GMBH [DE]
- [A] EP 0182309 A1 19860528 - UNION RHEINISCHE BRAUNKOHLLEN [DE]
- [AP] EP 0263522 A2 19880413 - VEBA OEL ENTWICKLUNGS GMBH [DE]

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