

Title (en)

OXIDATION CATALYST FOR THE PURIFICATION OF NITROGEN GAS CONTAINING ORGANIC IMPURITIES

Title (de)

OXIDATIONSKATALYSATOR ZUR REINIGUNG VON ORGANISCHE VERUNREINIGUNGEN ENTHALTENDEM STICKSTOFFGAS

Title (fr)

CATALYSEUR D'OXYDATION POUR LA PURIFICATION DU GAZ D'AZOTE CONTENANT DES IMPURETES ORGANIQUES

Publication

EP 2019730 A1 20090204 (EN)

Application

EP 06842729 A 20060829

Priority

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Abstract (en)

[origin: WO2007125539A1] An oxidation catalyst for the purification of nitrogen gas containing organic impurities. The catalyst comprises sulphated alumina with a sulphate loading of 1-20 percent weight alumina. The sulphated alumina is impregnated with an aqueous solution of a noble metal complex formed with a complexing agent. The noble metal content of the catalyst is 0.1 to 1 percent weight alumina and the surface penetration of the noble metal on the alumina is 100-150 microns. Also a method of preparing the oxidation catalyst by sulphating alumina with a sulphating agent to a sulphate loading of 1- 20 percent weight alumina; drying the alumina at 110-160°C; calcining the alumina at 520-560°C; complexing a noble metal in 0.1 to 1 percent weight alumina with a complexing agent; impregnating the sulphated alumina with an aqueous solution of the noble metal complex; drying the catalyst material at 110-160°C; calcining the catalyst material at 520-560°C; reducing the catalyst material with hydrogen at 470-500°C; and passivating the catalyst material by cooling it down to 25-50°C in an inert atmosphere.

IPC 8 full level

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