

Title (en)

PROCESS FOR PRODUCING TRICHLOROSILANE WITH STRUCTURE-OPTIMISED SILICON PARTICLES

Title (de)

VERFAHREN ZUR HERSTELLUNG VON TRICHLORSILAN MIT STRUKTUROPTIMIERTEN SILICIUM-PARTIKELN

Title (fr)

PROCÉDÉ DE PRODUCTION DE TRICHLOROSILANE COMPRENANT DES PARTICULES DE SILICIUM À STRUCTURE OPTIMISÉE

Publication

**EP 3976533 A1 20220406 (DE)**

Application

**EP 19728926 A 20190529**

Priority

EP 2019064116 W 20190529

Abstract (en)

[origin: WO2020239228A1] The invention provides a process for producing chlorosilanes which are selected from the general formula (1):  $\text{HnSiCl}_{4-n}$  and (2):  $\text{HmCl}_6\text{-mSi}_2$ , in which n denotes values from 0 to 3 and m denotes values from 0 to 4, in a fluidized bed reactor in which a reaction gas comprising hydrogen chloride is reacted using a particulate catalyst material comprising silicon, at temperatures from 280 to 400 °C, wherein the working granulate, denoting the granules or granular mixture introduced into the fluidized bed reactor, comprises 1 mass % of particles S comprising silicon, said particles being described by a structural parameter S, with S having a value of at least 0 and being calculated as follows: equation (1), where  $\phi S$  is the symmetry-weighted sphericity factor,  $\rho_{SD}$  is the bulk density [g/cm<sup>3</sup>], and  $\rho_F$  is the mean particulate solids density [g/cm<sup>3</sup>].

IPC 8 full level

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