

Title (en)  
PROCESS FOR PRODUCING TRICHLOROSILANE WITH STRUCTURE-OPTIMISED SILICON PARTICLES

Title (de)  
VERFAHREN ZUR HERSTELLUNG VON TRICHLORSILAN MIT STRUKTUR-OPTIMIERTEN SILICIUM-PARTIKELN

Title (fr)  
PROCÉDÉ POUR LA PRODUCTION DE TRICHLOROSILANE COMPRENANT DES PARTICULES DE SILICIUM À STRUCTURE OPTIMISÉE

Publication  
**EP 3962861 A1 20220309 (DE)**

Application  
**EP 19721256 A 20190429**

Priority  
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Abstract (en)  
[origin: WO202221421A1] The invention provides a process for producing chlorosilanes of the general formula 1:  $\text{H}_n\text{SiCl}_{4-n}$  (1), in which n denotes values from 1 to 4, in a fluidized bed reactor in which a reaction gas comprising hydrogen and silicon tetrachloride is reacted using a particulate catalyst material comprising silicon at temperatures from 350 to 800 °C, where the working granulate - denoting the granules or granular mixture introduced into the fluidized bed reactor - comprises 1 mass% of silicon-comprising particles S described by a structural parameter S, with S having a value of at least 0 and being calculated as follows: formula 2 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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