Title (en)

METHOD FOR RECOVERING HEXACHLORODISILANE FROM CHLOROSILANE MIXTURES IN PROCESS OFFGAS STREAMS

Title (de)

VERFAHREN ZUR GEWINNUNG VON HEXACHLORDISILAN AUS IN PROZESSABGASSTRÖMEN ENTHALTENEN GEMISCHEN VON CHLORSILANEN

Title (fr)

PROCÉDÉ POUR LA PRODUCTION D'HEXACHLORODISILANE À PARTIR DE MÉLANGES DE CHLOROSILANES CONTENUS DANS DES FLUX D'EFFLUENTS GAZEUX DE PROCÉDÉ

Publication

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Application

EP 15825916 A 20151120

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Abstract (en)

[origin: WO2016091240A1] The invention pertains to a method for recovering hexachlorodisilane from mixtures, present within process offgas streams, of chorosilanes of the general formula $Si_xH_yCl_{2x+2-y}$, where $x = 1$ and $y = 0 - 3$ and $x = 2$ and $y = 0 - 5$. The problem addressed by the present invention is therefore that of providing a method to allow high-yield isolation of the hexachlorodisilane from the aforesaid chlorosilane mixtures arising in the thermal reaction of hydrogen with monosilanes of the general formula $Si_xH_yCl_{2x+2-y}$, where x is 1 and y is 0 - 2. The problem is solved by a method for recovering hexachlorodisilane from mixtures, present within process offgas streams, of chorosilanes of the general formula $Si_xH_yCl_{2x+2-y}$, where $x = 1$ and $y = 0 - 3$ and $x = 2$ and $y = 0 - 5$, which is characterized in that the offgas streams or fractions thereof are converted to the liquid phase and then the partially hydrogenated chlorodisilanes of the general formula $Si_xH_yCl_{2x-2y-1}$ ($x = 2$, $y = 1 - 5$) that are in the chlorosilane mixture are additionally reacted catalytically to hexachlorodisilane, which is isolated from the resulting mixture by distillation.

IPC 8 full level

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CPC (source: CN EP KR)

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Citation (search report)

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