

Title (en)

DEVICE AND METHOD FOR PRODUCING SILICON CARBIDE

Title (de)

VORRICHTUNG UND VERFAHREN ZUM HERSTELLEN VON SILIZIUMCARBID

Title (fr)

DISPOSITIF ET PROCÉDÉ DE FABRICATION DE CARBURE DE SILICIUM

Publication

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Application

EP 19700652 A 20190109

Priority

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Abstract (en)

[origin: WO2019137942A1] The present invention relates to a device for producing silicon carbide as fibers, the fibers having a diameter d_F , comprising: - a receiving container (12) for receiving an at least partially electrically conductive reactant; an induction coil (26) for generating an alternating magnetic field, the induction coil (26) being arranged in such a way that at least the reactant can be heated to a defined temperature in a range of $\geq 1650^\circ\text{C}$ by a current induced by the alternating magnetic field; and - a substrate (20) for the deposition of fiber material made of silicon carbide and produced from the reactant, wherein the substrate (20) is positioned in fluid contact with the reactant and wherein the substrate (20) can be heated to a temperature which is lower than the temperature of the reactant by a temperature range of $\geq 50^\circ\text{C}$ to $\leq 100^\circ\text{C}$, and wherein the substrate (20) has a seed structure (22) with seed points (24), the seed points (24) being spaced from each other by a distance d_1 which is larger than the diameter d_F of the fibers to be produced.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

See references of WO 2019137942A1

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