

Title (en)

METHOD AND APPARATUS FOR PURIFYING A SILICON FEEDSTOCK

Title (de)

VERFAHREN UND VORRICHTUNG ZUR AUFREINIGUNG VON ROHSILICIUM

Title (fr)

PROCÉDÉ ET INSTALLATION DE PURIFICATION D'UNE CHARGE À BASE DE SILICIUM

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2010119129A1] The invention relates to a method for purifying a silicon feedstock in order to obtain silicon with a higher purity. According to the invention, the following steps are carried out: a) a plasma cone generated by a first non-transferred arc torch (6) is directed onto a solid wall (7) of a space having an outlet opening such that the impact of the cone against said solid wall (7) generates a homogeneous plasma flow; b) a silicon feedstock to be treated, consisting of particles and/or grains or crushed, is continuously injected into said homogeneous plasma flow; c) the whole consisting of the homogeneous plasma into which the crushed feedstock was injected is continuously directed from the outlet opening towards a crucible (1) comprising a means for heating and agitating said crushed feedstock in the molten state; d) once the entire crushed feedstock has been injected and a molten pool (13) has been formed in the crucible (1), the reactive plasma jet of at least one second non-transferred arc torch is directed towards the surface of said pool; e) the slag on the surface (17) of said pool is removed, and steps d) and e) are optionally repeated in order to evaporate at least some of the impurities of the pool brought to the surface (17) of said pool by agitation.

IPC 8 full level

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