

Title (en)

METHOD FOR THE RECOVERY OF ALUMINIUM FROM ALUMINIUM SCRAP, AND MULTICHAMBER MELTING FURNACE

Title (de)

VERFAHREN ZUR RÜCKGEWINNUNG VON ALUMINIUM AUS ALUMINIUMSCHROTT SOWIE MEHRKAMMER-SCHMELZOFEN

Title (fr)

PROCÉDÉ DE RÉCUPÉRATION D'ALUMINIUM À PARTIR DE DÉCHETS D'ALUMINIUM ET FOUR DE FUSION À PLUSIEURS CHAMBRES

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Application

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Abstract (en)

[origin: WO2022117466A1] The invention relates to a method for the recovery of aluminium from aluminium scrap with adhering organic deposits in a multichamber melting furnace (1), at least comprising the following method steps: - batchwise charging of the hearth (7) of the scrap chamber (2) with aluminium scrap (6), - thermal pre-treatment of the aluminium scrap (6) in a scrap chamber (2) during a first pre-treatment phase at a specified first temperature and in an atmosphere which is substantially free of oxygen in order to transform the organic deposits adhering to the aluminium scrap into a pyrolysis gas, - thermal pre-treatment of the aluminium scrap (6) in the scrap chamber (2) during a second pre-treatment phase at a specified second temperature, wherein the scrap chamber (2) is heated up to the spontaneous ignition temperature of the pyrolysis gas, wherein at least one air stream (L) is provided in the scrap chamber (2) in order to produce an ignitable sub-stoichiometric pyrolysis-gas/combustion-air mixture, which is made to react in the scrap chamber (2) in a combustion process, and - transferring the atmosphere from the scrap chamber (2) to a post-combustion process. The invention also relates to a corresponding multichamber melting furnace.

IPC 8 full level

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