

Title (en)
ARRANGEMENT FOR COLLECTION OF HOT GAS FROM AN ELECTROLYSIS PROCESS, AND A METHOD FOR SUCH GAS COLLECTION

Title (de)
ANORDNUNG ZUM SAMMELN VON HEISSGAS AUS EINEM ELEKTROLYSEPROZESS UND VERFAHREN FÜR EIN SOLCHES GASSAMMELN

Title (fr)
AGENCEMENT POUR LA COLLECTE DE GAZ CHAUD PROVENANT D'UN PROCESSUS D'ÉLECTROLYSE ET PROCÉDÉ POUR UNE TELLE COLLECTE DE GAZ

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Abstract (en)
[origin: WO2020182776A1] A dual gas collection system for collection of hot gas from an electrolysis process producing aluminium in a cell of Hall-Héroult type comprising PTS (Pot Tending Suction) channels (20, 30) with chimneys (25, 35) having openings (25', 35') for collecting gas from the interior of a gas hooding of the cell. The PTS channels (20, 30) being arranged in the superstructure of the cell, outside the said gas hooding. Inside the gas hooding, that can be thermally insulated, there is arranged a (DPS) Distributed Pot Suction channel (10) that runs along the extension of the hooding, where the channel (10) is provided with at least one the gas collection cap (11). The invention also relates to a method for dual collection of hot gas from an electrolysis process producing aluminium in a cell of Hall-Héroult type where the gas is collected via plural gas collecting caps (11, 12, 13, 14, 15, 16) arranged in a common DPS channel (10), wherein the channel is modified such that the suction rate is substantially equal at each cap along the channel. According to the invention one can extract a more CO₂-concentrated flue gas from a cell than is standard procedure in the aluminium industry today, by means of distributed pot suction (DPS) devices. In one embodiment the DPS cap can be integrated with a breaker bar (4) and a feeder for feeding raw material to the cell.

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