

Title (en)

METHOD AND DEVICE FOR CHLORINATION OF ORE-BEARING MATERIALS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR CHLORIERUNG VON ERZHALTIGEN MATERIALIEN

Title (fr)

PROCÉDÉ ET APPAREIL POUR LA CHLORATION DE MATIÈRES MÉTALLIFÈRES

Publication

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Application

EP 06761637 A 20060627

Priority

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Abstract (en)

[origin: WO2007131459A1] The invention is a new method of chlorination of ore-bearing materials in a reactor (1) in the presence of chlorine and coke with a view to manufacturing metal chlorides as, for example, Fe, Cu, Ti, Sn, Al, Zr, V, Mo, Nb and Ta. Its subject matter consists in the fact that from lateral, directly opposed intake chambers (14) of the reactor, powdered charge (3) is continuously delivered together with a pressurized flow (4) of chlorine-air mixture into a mixing chamber of the reactor. The upper layer of the melt in the mixing chamber with temperature of about 850-1200°C including suspended particles of the charge is blown at velocity of 50-500 m/sec through reaction channels (16) directed oppositely and obliquely upwards at an angle of 30-60° into the reaction chamber (15), where the melt is dispersed into emulsion with active highly developed heterogeneous surface. Consequently it is carried away through the contact channels (20) directed obliquely upwards at an angle of 30-60° into the discharge chamber (19), the gaseous reaction products being transferred (5) to condensation in order to separate addition agents and at the same time the salt melt (2) being continuously discharged at discharge chute (8) located past a syphon passage (7) of discharge chamber (19).

IPC 8 full level

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