

Title (en)

Electrolytic process for obtaining high purity platinum from impure platinum

Title (de)

Elektrolytisches Verfahren zur Gewinnung von Platin hoher Reinheit aus verunreinigtem Platin

Title (fr)

Procédé électrolytique pour obtention de platine de haute pureté à partir de platine impur

Publication

EP 0609507 B1 19960327 (DE)

Application

EP 93118981 A 19931125

Priority

DE 4243699 A 19921218

Abstract (en)

[origin: US5393389A] The electrolytic process for obtaining platinum of high purity from a concentrated hydrochloric acid solution of contaminated platinum containing base and noble metal impurities includes electrolyzing the hydrochloric acid solution containing the contaminated platinum in an electrolysis cell subdivided by a cation exchanger membrane under potentiostatic or voltage-controlled conditions with a voltage of 2.5 V to 8 V applied across the anode and cathode under a current density of 0.3 to 12.5 A/dm² so as to form a refined platinum-containing solution and a platinum alloy metal deposit. The concentrated hydrochloric acid solutions used in the process can have a contaminated platinum content of 50 to 700 g/l and total metal impurities of ≤ 5000 ppm. In contrast to the known prior art processes, the process according to the invention operates with minimal requirements in terms of safety technology and equipment, causes a minimal environmental burden and is far less time-consuming and more economical.

IPC 1-7

C25B 1/00; **C01G 55/00**

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