

Title (en)

Method of preparing rhenium - nickel alloys

Title (de)

Verfahren zum Herstellen von Rhenium-Nickellegierungen

Title (fr)

Procédé de préparation de rhénium - alliages de nickel

Publication

EP 2610371 B1 20140514 (EN)

Application

EP 12460097 A 20121227

Priority

PL 39750811 A 20111227

Abstract (en)

[origin: EP2610371A1] The subject of this invention is a method for producing homogeneous rhenium - nickel alloys by electrodeposition from aqueous solutions. In the method according to the invention to a sulphate nickel electrolytic bath for cathodic nickel production rhenium is introduced in the form of rhenate(VII) ions, preferably in the form of ammonium rhenate(VII) added in an amount of 2 to 100 g/dm³, and at a temperature of from 10 to 80°C, preferably at a temperature close to 55°C, the process of rhenium - nickel alloy electrodeposition is conducted on a cathode arranged centrally in the electrolyzer. On both sides of the cathode two insoluble anodes are placed, said cathodes preferably made of titanium and coated with metal oxides, wherein the cathodic current density is set to ≈ 5 A/dm², with pH of the bath ranging from 1 to 8, and wherein a laminar flow of the electrolyte is effected at a linear velocity of from 1 to 5 cm/min for a volumetric charge density ranging from 1 to 5 Ah/dm³.

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