Title (en)

TREATMENT OF NICKEL-CONTAINING WASTE WATER ON PHOSPHATING

Title (de)

AUFBEREITUNG VON NICKELHALTIGEM ABWASSER BEI DER PHOSPHATIERUNG

Title (fr)

TRAITEMENT D'EAUX RESIDUAIRES RENFERMANT DU NICKEL LORS D'UNE PHOSPHATATION

Publication

EP 1337471 A2 20030827 (DE)

Application

EP 01996515 A 20011106

Priority

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- EP 0112814 W 20011106

Abstract (en)

[origin: DE10056629C1] Production of a nickel-containing solution consisting of a phosphating bath overflow and/or rinsing water comprises phosphating using an acidic phosphatizing solution containing 3-50 g/l phosphate ions, 0.2-3 g/l zinc ions, 0.01-2.5 g/l nickel ions and optionally further metal ions and an accelerator. The bath overflow and/or the rinsing water is passed over a weakly acidic ion exchanger after phosphating. The acid groups of the ion exchanger are neutralized to not more than 15 % with alkali metal ions. The nickel-containing aqueous solution has a pH of 2.5-6.0 on charging to the ion exchanger. Preferred Features: The bath overflow and/or the rinsing water is subjected to membrane filtration in the form of ultrafiltration, nanofiltration, reverse osmosis or other filtering process, and the aqueous solution is fed over the ion exchanger after filtering. The weakly acidic ion exchanger binds nickel ions stronger than zinc ions. The ion exchanger supports chelate-forming iminodiacetic acid groups.

IPC 1-7

C02F 1/42; B01J 39/00

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 0240405A2

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