

Title (en)  
Installation and process for the electrolytic dissolution of a metal by oxidation

Title (de)  
Vorrichtung und Verfahren zur elektrolytischen Auflösung durch Oxidation eines Metalles

Title (fr)  
Installation et procédé de dissolution électrolytique par oxydation d'un métal.

Publication  
**EP 1099782 A1 20010516 (FR)**

Application  
**EP 00403078 A 20001107**

Priority  
FR 9914186 A 19991112

Abstract (en)  
Electrolytic metal dissolution apparatus has an electrolytic cell with a soluble anode of base metal and an insoluble cathode. The electrodes are not separated by a membrane and are at least partly immersed in an electrolyte to be enriched by ions of the base metal. The density of the electrolyte near the anode exceeds the density near the cathode by  $\geq 100$  g/l. An Independent claim is included for the production of metal in solution using the above apparatus as above Preferred Features: The density gradient is maintained by a temperature gradient  $\geq 15$  degrees C, the cathode region being hotter. The anode is made of metal granules. The electrolyte is based on sulfonates, sulfuric acid, halogen-based compounds, fluorosilicate or fluoroborate.

Abstract (fr)  
L'installation comprend : une cellule d'électrolyse (1") dotée d'une anode soluble (2") et d'une cathode insoluble (3") sans membrane interposée, des moyens pour introduire et prélever du bain dans la cellule, des moyens pour maintenir un gradient de densité de bain dans ladite cellule adapté pour que, si D1 est la densité du bain au voisinage de la cathode et si D2 est la densité du bain au voisinage de l'anode,  $(D2 - D1) \geq 100$  g/l. Procédé associé. Grâce à la séparation densitométrique, le métal dissous ne se redépote pas sur la cathode et le rendement global de dissolution est amélioré. <IMAGE>

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• [A] EP 0398735 A2 19901122 - SUN IND COATINGS [SG]  
• [A] GB 1226658 A 19710331  
• [A] EP 0770708 A1 19970502 - DAIWA FINE CHEMICALS CO LTD [JP]

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