

Title (en)  
HYDROGEN EVOLUTION INHIBITING ADDITIVES FOR ZINC ELECTROWINNING

Title (de)  
ADDITIVE ZUR VERHINDERUNG DER WASSERSTOFFBILDUNG BEI DER ELEKTROLYTISCHEN GEWINNUNG VON ZINK

Title (fr)  
ADDITIFS INHIBITEURS DE L'EVOLUTION DE L'HYDROGENE POUR L'EXTRACTION ELECTROLYTIQUE DE ZINC

Publication  
**EP 1417357 B1 20050316 (EN)**

Application  
**EP 02754027 A 20020813**

Priority  
• CA 0201250 W 20020813  
• US 31182501 P 20010814

Abstract (en)  
[origin: WO03016593A2] A cetylpyridinium salt, cetylpyridinium chloride (CPC) is used as a hydrogen evolution inhibitor (a current efficiency improver) in a commercial zinc electrowinning process. Zinc electrowinning compositions containing a) antimony and b) antimony and glue were tested. Adding CPC at a 0.05mM concentration to the electrowinning liquor resulted in increased current efficiency for both electrolytes.

IPC 1-7  
**C25C 1/16**

IPC 8 full level  
**C25C 1/16** (2006.01)

CPC (source: EP KR US)  
**C25C 1/16** (2013.01 - EP KR US)

Designated contracting state (EPC)  
BG DE ES FI IT NL

DOCDB simple family (publication)  
**WO 03016593 A2 20030227; WO 03016593 A3 20031009**; AU 2002322888 B2 20070621; BR 0211933 A 20041026; CA 2457071 A1 20030227; CA 2457071 C 20070529; CN 100342061 C 20071010; CN 1653209 A 20050810; DE 60203301 D1 20050421; DE 60203301 T2 20060413; EP 1417357 A2 20040512; EP 1417357 B1 20050316; ES 2238586 T3 20050901; HK 1075920 A1 20051230; JP 2004537653 A 20041216; KR 100599993 B1 20060713; KR 20040044443 A 20040528; MX PA04001459 A 20050217; NO 20040651 L 20040416; RU 2004107493 A 20050610; RU 2288299 C2 20061127; US 2005011769 A1 20050120; ZA 200405167 B 20050627

DOCDB simple family (application)  
**CA 0201250 W 20020813**; AU 2002322888 A 20020813; BR 0211933 A 20020813; CA 2457071 A 20020813; CN 02816020 A 20020813; DE 60203301 T 20020813; EP 02754027 A 20020813; ES 02754027 T 20020813; HK 05108025 A 20050914; JP 2003520877 A 20020813; KR 20047002247 A 20020813; MX PA04001459 A 20020813; NO 20040651 A 20040213; RU 2004107493 A 20020813; US 48671104 A 20040830; ZA 200405167 A 20040629