

Title (en)  
USE OF SEPARATION GAS IN CONTINUOUS HOT DIP METAL FINISHING

Title (de)  
TRENNGASEINSATZ BEI DER KONTINUIERLICHEN SCHMELZTAUCHVEREDELUNG

Title (fr)  
UTILISATION DE GAZ DE SEPARATION LORS DE LA FINITION EN CONTINUE DE METAUX PAR IMMERSION A CHAUD

Publication  
**EP 1518004 A1 20050330 (DE)**

Application  
**EP 03714895 A 20030328**

Priority  
• DE 10229203 A 20020628  
• DE 10233343 A 20020723  
• EP 0303219 W 20030328

Abstract (en)  
[origin: WO2004003250A1] The invention relates to a method for suppressing zinc evaporation in the hot dip metal coating of a steel strip with zinc or zinc alloys. According to the invention, a separation gas layer is provided above the metal bath, said gas being selected from argon, butane, krypton, propane, sulphur dioxide, hydrogen sulphide, xenon, acetylene, arsine, boron trichloride, boron trifluoride, butene, dichlorosilane, disilane, ethylene oxide, tetrafluoromethane, monochlorodifluoromethane, trifluoromethane, hexafluoroethane, tetrafluoroethene, isobutane, nitrogen dioxide, nitrogen(III) fluoride, nitrogen oxide, phosphine, propene, silane, silicon tetrafluoride, silicon tetrachloride, sulphur hexafluoride, sulphur tetrafluoride, tungsten hexafluoride, or from an arbitrary combination of the aforementioned gases to form a gas mixture with or without argon. Said gases have a poor conductivity and are suitable for preventing gaseous turbulence.

IPC 1-7  
**C23C 2/02**; **C23C 2/00**

IPC 8 full level  
**C23C 2/06** (2006.01); **C23C 2/00** (2006.01); **C23C 2/02** (2006.01); **C23C 2/40** (2006.01)

CPC (source: EP US)  
**C23C 2/00** (2013.01 - EP US); **C23C 2/00344** (2022.08 - EP US); **C23C 2/004** (2022.08 - EP US); **C23C 2/02** (2013.01 - EP US)

Citation (search report)  
See references of WO 2004003250A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2004003250 A1 20040108**; AT E382104 T1 20080115; AU 2003219109 A1 20040119; AU 2003219109 B2 20090122; BR 0311470 A 20050315; CN 100422378 C 20081001; CN 1665954 A 20050907; DE 50308889 D1 20080207; EP 1518004 A1 20050330; EP 1518004 B1 20071226; ES 2297143 T3 20080501; JP 2005539136 A 20051222; MX PA04012328 A 20050408; PL 206283 B1 20100730; PL 372068 A1 20050711; RU 2005102086 A 20050720; RU 2319786 C2 20080320; US 2005233088 A1 20051020

DOCDB simple family (application)  
**EP 0303219 W 20030328**; AT 03714895 T 20030328; AU 2003219109 A 20030328; BR 0311470 A 20030328; CN 03815366 A 20030328; DE 50308889 T 20030328; EP 03714895 A 20030328; ES 03714895 T 20030328; JP 2004516548 A 20030328; MX PA04012328 A 20030328; PL 37206803 A 20030328; RU 2005102086 A 20030328; US 51957905 A 20050613