

Title (en)  
HEAT EXCHANGER WITH A REDUCED TENDENCY TO PRODUCE DEPOSITS AND METHOD FOR PRODUCING SAME

Title (de)  
WÄRMEÜBERTRÄGER MIT VERRINGERTER NEIGUNG, ABLAGERUNGEN ZU BILDEN UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)  
ECHANGEUR DE CHALEUR PRESENTANT UNE TENDANCE REDUITE A FORMER DES DEPOTS, ET SON PROCEDE DE PRODUCTION

Publication  
**EP 1144724 B1 20021106 (DE)**

Application  
**EP 99964672 A 19991224**

Priority

- DE 19860526 A 19981230
- EP 9910368 W 19991224

Abstract (en)  
[origin: US6617047B1] The present invention relates to a process for coating apparatuses and apparatus parts for chemical plant construction-which are taken to mean, for example, apparatus, tank and reactor walls, discharge devices, valves, pumps, filters, compressors, centrifuges, columns, dryers, comminution machines, internals, packing elements and mixing elements-wherein a metal layer or a metal/polymer dispersion layer is deposited in an electroless manner on the apparatus(es) or apparatus part(s) to be coated by bringing the parts into contact with a metal electrolyte solution which, in addition to the metal electrolyte, comprises a reducing agent and optionally the polymer or polymer mixture to be deposited in dispersed form, where at least one polymer is halogenated.

IPC 1-7  
**C23C 18/16**; **F28F 19/06**; **C23C 18/36**

IPC 8 full level  
**C08F 2/01** (2006.01); **C08F 10/00** (2006.01); **C23C 18/16** (2006.01); **C23C 18/31** (2006.01); **C23C 18/34** (2006.01); **C23C 18/36** (2006.01); **C23C 18/40** (2006.01); **C23C 18/48** (2006.01); **C23C 18/50** (2006.01); **C23C 18/52** (2006.01); **F28F 19/02** (2006.01); **F28F 19/06** (2006.01)

CPC (source: EP KR US)  
**C23C 18/1616** (2013.01 - EP US); **C23C 18/1662** (2013.01 - EP KR US); **C23C 18/32** (2013.01 - KR); **C23C 18/36** (2013.01 - EP US); **C23C 18/38** (2013.01 - KR); **F28F 19/02** (2013.01 - EP US); **F28F 19/06** (2013.01 - KR); **F28F 2245/00** (2013.01 - KR); **Y10T 428/12556** (2015.01 - EP US); **Y10T 428/12944** (2015.01 - EP US); **Y10T 428/31678** (2015.04 - EP US)

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**DE 19860526 A1 20000706**; AT E227360 T1 20021115; AT E237006 T1 20030415; AT E245210 T1 20030815; CA 2358097 A1 20000713; CA 2358099 A1 20000713; CN 1332810 A 20020123; CN 1338008 A 20020227; CN 1636305 A 20050706; DE 59903362 D1 20021212; DE 59905005 D1 20030515; DE 59906313 D1 20030821; EP 1144723 A2 20011017; EP 1144723 A3 20021113; EP 1144723 B1 20030409; EP 1144724 A2 20011017; EP 1144724 B1 20021106; EP 1144725 A2 20011017; EP 1144725 B1 20030716; ES 2197710 T3 20040101; ES 2204184 T3 20040416; JP 2002534605 A 20021015; JP 2002534606 A 20021015; JP 2003511551 A 20030325; KR 20010100009 A 20011109; KR 20010100013 A 20011109; KR 20010103724 A 20011123; US 6509103 B1 20030121; US 6513581 B1 20030204; US 6617047 B1 20030909; WO 0040773 A2 20000713; WO 0040773 A3 20001109; WO 0040774 A2 20000713; WO 0040774 A3 20020926; WO 0040775 A2 20000713; WO 0040775 A3 20001109

DOCDB simple family (application)  
**DE 19860526 A 19981230**; AT 99964672 T 19991224; AT 99965554 T 19991224; AT 99967007 T 19991224; CA 2358097 A 19991224; CA 2358099 A 19991224; CN 99815259 A 19991224; CN 99816373 A 19991224; CN 99816382 A 19991224; DE 59903362 T 19991224; DE 59905005 T 19991224; DE 59906313 T 19991224; EP 9910368 W 19991224; EP 9910371 W 19991224; EP 9910372 W 19991224; EP 99964672 A 19991224; EP 99965554 A 19991224; EP 99967007 A 19991224; ES 99965554 T 19991224; ES 99967007 T 19991224; JP 2000592465 A 19991224; JP 2000592466 A 19991224; JP 2000592467 A 19991224; KR 20017008309 A 20010629; KR 20017008317 A 20010629; KR 20017008321 A 20010629; US 86913901 A 20010626; US 86914701 A 20010626; US 86927501 A 20010626