

Title (en)

Black chromium process free of Cr-VI

Title (de)

Cr-VI-freie Schwarzverchromung

Title (fr)

Procédé pour le dépôt de chromium noir exempt de Cr-VI

Publication

EP 1876268 A1 20080109 (DE)

Application

EP 06115347 A 20060613

Priority

EP 06115347 A 20060613

Abstract (en)

Preparation of black chrome-plating of a surface comprises black chrome-plating the metal surface and cleaning the black chrome-plated surface using an alkaline solvent by ultrasound treatment.

Abstract (de)

Die Erfindung betrifft weitgehend die Herstellung von Cr-VI-freien Schwarzverchromungsschichten, vorzugsweise auf Automobilinnenoberflächen. Wesentlich ist die Kombination einer kathodischen Aktivierung vor der Schwarzverchromung mit einer ultraschallunterstützten Reinigung danach.

IPC 8 full level

C25D 11/38 (2006.01); **C23C 22/30** (2006.01); **C23C 22/83** (2006.01); **C25D 3/06** (2006.01); **C25D 5/48** (2006.01)

CPC (source: EP US)

C23C 22/37 (2013.01 - EP); **C23C 22/83** (2013.01 - EP US); **C25D 3/08** (2013.01 - EP); **C25D 5/12** (2013.01 - EP US); **C25D 5/34** (2013.01 - EP); **C25D 5/36** (2013.01 - EP); **C25D 5/42** (2013.01 - EP); **C25D 5/48** (2013.01 - EP); **C25D 5/605** (2020.08 - EP US); **C25D 5/611** (2020.08 - EP US); **C25D 5/617** (2020.08 - EP US); **C25D 5/627** (2020.08 - EP US)

Citation (applicant)

- EP 0087288 A1 19830831 - M & T CHEMICALS INC [US]
- JP S5495941 A 19790728 - NIPPON STEEL CORP
- GB 2218111 A 19891108 - LPW CHEMIE GMBH [DE], et al
- WO 02064862 A2 20020822 - TAIYO MFG CO LTD [JP], et al
- GB 1096017 A 19671220 - UDYLLITE CORP
- US 5330558 A 19940719 - MCCORMICK DAVID R [US], et al
- ARTHUR S. KUSHNER: "Plating Clinics", PRODUCT FINISHING, vol. 68, no. 8, 2004, pages 24 - 27

Citation (search report)

- [Y] EP 0087288 A1 19830831 - M & T CHEMICALS INC [US]
- [Y] JP S5495941 A 19790728 - NIPPON STEEL CORP
- [Y] GB 2218111 A 19891108 - LPW CHEMIE GMBH [DE], et al
- [Y] WO 02064862 A2 20020822 - TAIYO MFG CO LTD [JP], et al
- [Y] GB 1096017 A 19671220 - UDYLLITE CORP
- [Y] ARTHUR S. KUSHNER: "Plating clinics", PRODUCT FINISHING, vol. 68, no. 8, 2004, Cincinatti, pages 24 - 27, XP002406655

Cited by

EP3564411A1; EP3162919A1; EP3312307A1; WO2017071817A1; EP3517655A1; LT6119B

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

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DOCDB simple family (application)

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