Title (en)
TREATMENT PROCESS FOR CONCRETE

Title (de)
BEHANDLUNGSVERFAHREN FÜR BETON

Title (fr)
PROCEDE DE TRAITEMENT DU BETON

Publication
EP 1861522 B2 20220928 (EN)

Application
EP 06710171 A 20060314

Priority
- GB 2006050054 W 20060314
- GB 0505353 A 20050316
- GB 0520112 A 20051004
- GB 0600661 A 20060113

Abstract (en)
[origin: WO2006097770A2] A single anode system used in multiple electrochemical treatments to control steel corrosion in concrete comprises a sacrificial metal that is capable of supporting high impressed anode current densities with an impressed current anode connection detail and a porous embedding material containing an electrolyte. Initially current is driven from the sacrificial metal [1] to the steel [10] using a power source [5] converting oxygen and water [14] into hydroxyl ions [15] on the steel and drawing chloride ions [16] into the porous material [2] around the anode such that corroding sites are moved from the steel to the anode restoring steel passivity and activating the anode. Cathodic prevention is then applied. This is preferably sacrificial cathodic prevention that is applied by disconnecting the power source and connecting the activated sacrificial anode directly to the steel.

IPC 8 full level
C23F 13/02 (2006.01); **C23F 13/16** (2006.01); **E04C 5/01** (2006.01)

CPC (source: EP KR NO)
C23F 13/02 (2013.01 - EP NO); **C23F 13/10** (2013.01 - KR); **C23F 13/16** (2013.01 - EP NO); **E04C 5/015** (2013.01 - EP NO); C23F 2201/02 (2013.01 - EP NO); C23F 2213/21 (2013.01 - EP NO)

Citation (opposition)
  Opponent :
- WO 0171063 A1 20010927 - ENSER CORP [US]
- WO 0026439 A2 20000511 - FOSROC INTERNATIONAL LTD [GB], et al
- US 6027633 A 20000222 - WHITMORE DAVID W [CA]
- US 2004238347 A1 20041202 - BENNETT JOHN E [US]

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

DOCDB simple family (publication)
WO 2006097770 A2 20060921; **WO 2006097770 A3 20070510**; **WO 2006097770 B1 20070628**; AU 2006224340 A1 20060921; AU 2006224340 B2 20100805; CA 2601516 A1 20060921; CA 2601516 C 20151117; DK 2722418 T3 20170828; EP 1861522 A2 20071205; EP 1861522 B1 20160427; EP 1861522 B2 20220928; KR 101381053 B1 20140404; KR 20070116095 A 20071206; NO 20074790 L 20070919; NO 343826 B1 20190617

DOCDB simple family (application)
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