

Title (en)

CATHODIC CORROSION PROTECTION WITH CURRENT LIMITER

Title (de)

KATHODISCHER KORROSIONSSCHUTZ MIT STROMBEGRENZER

Title (fr)

PROTECTION CATHODIQUE CONTRE LA CORROSION AVEC LIMITEUR DE COURANT

Publication

**EP 4424872 A2 20240904 (EN)**

Application

**EP 24188688 A 20210413**

Priority

- US 202016859029 A 20200427
- EP 21168231 A 20210413

Abstract (en)

In a method for cathodically protecting and/or passivating a metal section in an ionically conductive material such as steel reinforcement in concrete or mortar, an impressed current or sacrificial anode communicates ionic current to the metal section and a storage component of electrical energy which can be a cell, battery or capacitor is provided as a component of the anode. A current limiter is provided which prevents excess current draining the supply. This can be a semi-conductive device such as a transistor or diode is connected in the path from the anode to the metal section to limit the cathodic protection current to a value of the order of 1 milliamp. When a diode or similar device is used the current can be limited to the reverse leakage current of the diode.

IPC 8 full level

**C23F 13/20** (2006.01)

CPC (source: EP)

**C23F 13/04** (2013.01); **C23F 13/20** (2013.01); **C23F 2201/02** (2013.01); **C23F 2213/21** (2013.01)

Citation (applicant)

- US 8961746 B2 20150224 - SERGI GEORGE [GB], et al
- US 8968549 B2 20150303 - SERGI GEORGE [GB], et al
- US 7264708 B2 20070904 - WHITMORE DAVID [CA], et al
- US 7226532 B2 20070605 - WHITMORE DAVID W [CA]
- WO 2017075699 A1 20170511 - VECTOR CORROSION TECH LTD [CA]
- WO 2019006540 A1 20190110 - VECTOR REMEDIATION LTD [CA]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 3904559 A1 20211103**; AU 2021202361 A1 20211111; AU 2021202361 B2 20240418; AU 2024201973 A1 20240411;  
CA 3114214 A1 20211027; CA 3234670 A1 20211027; EP 4424872 A2 20240904; JP 2021172887 A 20211101; JP 2024109605 A 20240814

DOCDB simple family (application)

**EP 21168231 A 20210413**; AU 2021202361 A 20210419; AU 2024201973 A 20240327; CA 3114214 A 20210407; CA 3234670 A 20210407;  
EP 24188688 A 20210413; JP 2021071251 A 20210420; JP 2024073017 A 20240426