

Title (en)
CORROSION RESISTANCE EVALUATOR

Title (de)
BEWERTER FÜR KORROSIONSBESTÄNDIGKEIT

Title (fr)
DISPOSITIF D'ÉVALUATION DE LA RÉSISTANCE À LA CORROSION

Publication
EP 2656046 A4 20150701 (EN)

Application
EP 11850856 A 20111221

Priority
• US 201061425454 P 20101221
• US 2011066622 W 20111221

Abstract (en)
[origin: WO2012088335A2] The present invention is directed to a corrosion resistance evaluator suitable for corrosion testing coated metals substrates, such as auto bodies at an accelerated rate. A corrosion resistance evaluator provided with a chamber containing electrolyte to which anode and cathode coated with protective coating being tested are exposed. These coatings are provided with predetermined and standardized defects, such as micro-holes to accelerate the corrosion of the underlying metal substrate in a predictable and repeatable manner. The coated cathode/anode pair is subject to a start-up period followed by series preset DC voltages modulated in triangular, truncated triangular or trapezoidal manner for preset durations that are interspaced with recovery periods. The impedance data collected is then used to arrive at the corrosion performance resistance of the coating applied over the cathode/anode pair. The foregoing evaluator substantially reduces the time required to test corrosion from several days (40 plus days) to few days (about two days).

IPC 8 full level
G01N 17/02 (2006.01)

CPC (source: EP)
G01N 17/02 (2013.01)

Citation (search report)
• [X] WO 2010078547 A1 20100708 - DU PONT [US], et al
• [A] US 2010155262 A1 20100624 - YEPEZ OMAR J [US], et al
• [T] MICHAL KOWALEWSKI: "Selection of excitation signals for high-impedance spectroscopy", JOURNAL OF PHYSICS: CONFERENCE SERIES, INSTITUTE OF PHYSICS PUBLISHING, BRISTOL, GB, vol. 459, no. 1, 6 September 2013 (2013-09-06), pages 12060, XP020250527, ISSN: 1742-6596, [retrieved on 20130906], DOI: 10.1088/1742-6596/459/1/012060
• See references of WO 2012088335A2

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