



CORROSION SCIENCE

The Journal on Environmental Degradation of Materials and its Control

Editor-in-Chief: G. T. BURSTEIN, University of Cambridge, U.K.

An Official Journal of the Institute of Corrosion

CONTENTS

Letter

L. TAN and T. R. ALLEN

Review

C. SUN, R. HUI, W. QU and S. YICK
Papers

A. GEBHARD, T. BAYERL, A. K. SCHLARB
and K. FRIEDRICH
G. E. BADR

M. RAHSEPAR and M. E. BAHRLOLOOM

U. C. NWAOGU, C. BLAWERT,
N. SCHARNAGL, W. DIETZEL and
K. U. KAINER

K. KOIKE, K. SHIMADA and S. FUKUDA

H. SUN, X. WU and E.-H. HAN

H. GERENGI, K. DAROWICKI, G. BEREKET
and P. SLEPSKI

Z. HADJEM-HAMOUCHE, T. AUGER and
I. GUILLOT

Z. TAO, S. ZHANG, W. LI and B. HOU
M. MEHANNA, R. BASSÉGUY, M.-L. DÉLIA
and A. BERGEL

- 2503 Localized corrosion of magnetite on ferritic-martensitic steels exposed to supercritical water
- 2508 Progress in corrosion resistant materials for supercritical water reactors
- 2524 Galvanic corrosion of polyacrylonitrile (PAN) and pitch based short carbon fibres in polyetheretherketone (PEEK) composites
- 2529 The role of some thiosemicarbazide derivatives as corrosion inhibitors for C-steel in acidic media
- 2537 Corrosion study of Ni/Zn compositionally modulated multilayer coatings using electrochemical impedance spectroscopy
- 2544 Influence of inorganic acid pickling on the corrosion resistance of magnesium alloy AZ31 sheet
- 2557 Aggregation in thin-film silver: Induced by chlorine and inhibited by alloying with two dopants
- 2565 Effects of temperature on the protective property, structure and composition of the oxide film on Alloy 625
- 2573 Evaluation of corrosion inhibition of brass-118 in artificial seawater by benzotriazole using Dynamic EIS
- 2580 Temperature effect in the maximum propagation rate of a liquid metal filled crack: The T91 martensitic steel/Lead-Bismuth Eutectic system
- 2588 Corrosion inhibition of mild steel in acidic solution by some oxo-triazole derivatives
- 2596 Effect of *Geobacter sulfurreducens* on the microbial corrosion of mild steel, ferritic and austenitic stainless steels

Contents continued on outside back cover

Continued from outside front cover

- B. PIEROZYNSKI, J. JANKOWSKI and W. SOKOLSKI
M. A. HEGAZY
- D. YAO, C. ZHOU, J. YANG and H. CHEN
J. L. ALAMILLA, M. A. ESPINOSA-MEDINA and E. SOSA
X. LI, S. DENG, H. FU and G. MU
- N. NAVA, E. SOSA, J. L. ALAMILLA, C. KNIGHT and A. CONTRERAS
F. M. SONG
- A.-R. EL-SAYED, H. S. MOHRAN and H. M. ABD EL-LATEEF
X. LIU, T. ZHANG, Y. SHAO, G. MENG and F. WANG
M. LANGUMIER, R. SABOT, R. OBAME-NDONG, M. JEANNIN, S. SABLÉ and PH. REFAIT
Z. I. ORTIZ, P. DÍAZ-ARISTA, Y. MEAS, R. ORTEGA-BORGES and G. TREJO
J. K. KIM, Y. H. KIM, S. H. UHM, J. S. LEE and K. Y. KIM
P. HU, W. GUOLIN and Z. WANG
M. T. MONTAÑES, R. SÁNCHEZ-TOVAR, J. GARCÍA-ANTÓN and V. PÉREZ-HERRANZ
W. XU and J. LIU
- A. K. SINGH and M. A. QURAISHI
F. MENG, J. WANG, E.-H. HAN and W. KE
- C. M. CHUN and T. A. RAMANARAYANAN
R. VEDALAKSHMI, SP. MANOHARAN, H.-W. SONG and N. PALANISWAMY
Short Communication
O. K. ABIOLA and J. O. E. OTAIGBE
- 2605 Application of nickel-coated carbon fibre material in cathodic protection of underground-buried steel structures
2610 A novel Schiff base-based cationic gemini surfactants: Synthesis and effect on corrosion inhibition of carbon steel in hydrochloric acid solution
2619 Experimental studies and modeling of the oxidation of multiphase niobium-base alloys
2628 Modelling steel corrosion damage in soil environment
2639 Synergistic inhibition effect of rare earth cerium(IV) ion and 3,4-dihydroxybenzaldehyde on the corrosion of cold rolled steel in H_2SO_4 solution
2652 Field sludge characterization obtained from inner of pipelines
2657 Predicting the mechanisms and crack growth rates of pipelines undergoing stress corrosion cracking at high pH
2675 Potentiodynamic studies on anodic dissolution and passivation of tin, indium and tin-indium alloys in some fruit acids solutions
2685 Effect of alternating voltage treatment on the microstructure and corrosion resistance of stannate conversion coating on AZ91D alloy
2694 Formation of Fe(III)-containing mackinawite from hydroxysulphate green rust by sulphate reducing bacteria
2703 Characterization of the corrosion products of electrodeposited Zn, Zn-Co and Zn-Mn alloys coatings
2716 Intergranular corrosion of Ti-stabilized 11wt% Cr ferritic stainless steel for automotive exhaust systems
2724 Oxidation mechanism and resistance of ZrB_2 -SiC composites
2733 The influence of Reynolds number on the galvanic corrosion of the copper/AISI 304 pair in aqueous LiBr solutions
2743 Microstructure and pitting corrosion of friction stir welded joints in 2219-O aluminum alloy thick plate
2752 Effect of 2,2'-benzothiazolyl disulfide on the corrosion of mild steel in acid media
2761 Effects of scratching on corrosion and stress corrosion cracking of Alloy 690TT at 58 °C and 330 °C
2770 Metal dusting resistant alumina forming coatings for syngas production
2777 Application of harmonic analysis in measuring the corrosion rate of rebar in concrete
2790 The effects of *Phyllanthus amarus* extract on corrosion and kinetics of corrosion process of aluminum in alkaline solution
I Corrosion Diary

Indexed/Abstracted in Current Contents, Engng Ind Monthly & Author Index, PASCAL/CNRS Database, Corrosion Abstracts, Metals Abstracts, Chemical Abstracts, INSPEC Database, BMT Abstracts, Petroleum Abstracts, Aqua Abstr, Cam Sci Abstr, Chem Eng Abstr, Chem Haz in Indus, Edi Metal Abstr, Environ Per Bibl, Materials Science Citation Index, Applied Science & Technology Index, Wilson Applied Science & Technology Abstracts, Current Technology Index (CTI). Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®.

Available online at



0010-938X(200911)51:11;1-2