



# 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

- |   |     |   |
|---|-----|---|
| U. KAMACHI MUDALI, C. BABU RAO and B. RAJ   | 783 | Intergranular corrosion damage evaluation through laser scattering technique  |
| K. C. EMREGÜL and M. HAYVALI  | 797 | Studies on the effect of a newly synthesized Schiff base compound from phenazone and vanillin on the corrosion of steel in 2 M HCl                          |
| A. M. ALSABAGH, M. A. MIGAHEH and H. S. AWAD  | 813 | Reactivity of polyester aliphatic amine surfactants as corrosion inhibitors for carbon steel in formation water (deep well water)                           |
| N. MASAHASHI, G. KIMURA, M. OKU, K. KOMATSU, S. WATANABE and S. HANADA              | 829 | Corrosion behavior of iron-aluminum alloys and its composite steel in sulfuric acid   |
| Y. S. TAN, M. P. SRINIVASAN, S. O. PEHKONEN and S. Y. M. CHOOI                      | 840 | Effects of ring substituents on the protective properties of self-assembled benzenethiols on copper   |
| E. BLASCO-TAMARIT, A. IGUAL-MUÑOZ, J. GARCÍA ANTÓN and D. GARCÍA-GARCÍA             | 863 | Effect of aqueous LiBr solutions on the corrosion resistance and galvanic corrosion of an austenitic stainless steel in its welded and non-welded condition |
| D. A. WADESON, X. ZHOU, G. E. THOMPSON, P. SKELDON, L. D. OOSTERKAMP and G. SCAMANS | 887 | Corrosion behaviour of friction stir welded AA7108 T79 aluminium alloy  |
| A. M. AL-MAYOUF   | 898 | Dissolution of magnetite coupled galvanically with iron in environmentally friendly chelant solutions   |
| H. F. LÓPEZ, M. M. CISNEROS, H. MANCHA, O. GARCÍA and M. J. PÉREZ                   | 913 | Grain size effects on the SCC susceptibility of a nitrogen steel in hot NaCl solutions  |
| A. ALAMR, D. F. BAHR and M. JACROUX   | 925 | Effects of alloy and solution chemistry on the fracture of passive films on austenitic stainless steel  |

*Contents continued on outside back cover*

<http://www.elsevier.com/locate/corsci>

*Continued from front cover*

- |   |      |   |
|---|------|---|
| B. C. MAJI, C. M. DAS,<br>M. KRISHNAN and R. K. RAY               | 937  | The corrosion behaviour of Fe-15Mn-7Si-9Cr-5Ni shape memory alloy   |
| J. JAYARAJ, D. J. SORDELET,<br>D. H. KIM, Y. C. KIM and E. FLEURY | 950  | Corrosion behaviour of Ni-Zr-Ti-Si-Sn amorphous plasma spray coating  |
| E. KUŞ and F. MANSFELD  | 965  | An evaluation of the electrochemical frequency modulation (EFM) technique   |
| I. CVIJOVIĆ, I. PAREZANOVIĆ and<br>M. SPIEGEL                     | 980  | Influence of H <sub>2</sub> -N <sub>2</sub> atmosphere composition and annealing duration on the selective surface oxidation of low-carbon steels |
| N. KIKUCHI and M. SEO   | 994  | In situ gravimetry of nickel thin film during potentiodynamic polarization in acidic and alkaline sulfate solutions                               |
| M. H. MOAYED and R. C. NEWMAN                                     | 1004 | Evolution of current transients and morphology of metastable and stable pitting on stainless steel near the critical pitting temperature          |
|   | I    | Corrosion diary   |
|   | III  | Keywords for <i>Corrosion Science</i>   |

*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)*

ISSN 0010-938X

Also available on

SCIENCE @ DIRECT®  
www.sciencedirect.com



0010-938X(200604)48:4;1-H