

- 96 IMF New Members (1 July 2000 – 30 June 2001)
97 Rising to the surface – C Bocking discusses the use of surface analysis techniques for the industry
100 Electrocoating for fasteners – by P Wynn
103 Company Profile – Hawking Corporation and Techniclad Electrophoretic Coating Processes
104 Surface World Show – report by C Larson
105 Current literature – Contents of recent issues of sister journals

Transactions

- 195 The electrolytic preparation and characterization of Ni-Fe alloys- A Ramachandran, C N Tharamani and S M Mayanna
199 Corrosion behaviour of Zn and Zn alloy coatings in alkaline media- O Girclene, R Ramanauskas, P Castro, P Bartolo-Perez
204 Novel ambient temperature ionic liquids for zinc and zinc alloy electrodeposition- A P Abbott, G Capper, D L Davies, R K Rasheed and V Tambyrajah
207 The structural relaxation of amorphous Co-P Films obtained by pulsed current - V A Zabludovsky, E Ph Shtapenko, A N Gulivets, A S Baskevich and R Ph Ganitch
209 Development of yttria-doped zirconia thin films on mild steel by a sol-gel process - J Akhtar, S K Durrani, N A Chughtai, N Hussain, M Ahmad, M Munir and C A Majid
213 A voltammetric and chronopotentiometric study of anodized aluminium in metal salt solutions - V Skominas, S Lichušina, P Miecinaskas and A Jagminas
219 Comparative performance of copper sulphamate bath with conventional acid-sulphate and cyanide baths - P Kokila, R Lekshmana Sarma and S Sriveeraraghavan
224 Formation and characterization of a nickel-quasicrystal composite produced by electroforming - K C Chan and N S Qu
227 Indexes

- 76 IMF Technician Examination Results
- 78 Hydrogen Embrittlement from Metal Finishing Processes - in the third of our education and practical guidance articles, D Gabe discusses the causes and avoidance of this problem
- 80 Forthcoming conferences / exhibitions
- 81 Reflections on a Presidency - P Farr looks back over his time in the hot seat and challenges still facing the institute, and the industry
- 81 CETS, a Pan - European Forum-D Hemsley has sent in a short report on the past 2 years of CETS activity
- 83 Decorative Cr (VI) electrodeposit alternatives - M Pye describe the benefits of tin cobalt plating in a paper first given to a London Branch Symposium
- 85 Current Literature - contents of recent issues of sister society journals
- 86 Conference report - D Gabe reviews the Jakobi bicentenary conference held in Moscow
- 87 The EDEN System - extending electroless nickel bath lives by continuous electro-dialysis is reported by G Orgill, R Born and W Richtering
- 92 Company Profile - Schloetter's new Cr (III) passivation process is reviewed
- 93 Industry News
- 94 Plating on Plastics - DMS Chromium Plating Ltd install Serfilco filtration equipment for their new Kidderminster plant

Transactions

- 155 Atmospheric Pressure Plasma Cleaning of Aluminium-S J M Pinson, S Collins, G E Thompson and M R Alexander
- 160 Stress Determination in Pulse Electroplated Gold Deposits- D L Rehrig and N V Mandich
- 163 Interface Processes at RuO₂ / Ti Based Electrodes-J P G Farr and L X Yang
- 171 Electroplating of Copper from an Amine based Noncyanide Bath- S Jayakrishnan, A Vinothini, C Kala, S Sriveeraraghavan and R M Krishnan
- 175 The Structure and Texture Development of Ni Alloy Electrodeposits (2) Nickel-Iron Duplex and Multilayered Deposits - D B Lewis, C E Lehmberg and G W Marshall
- 186 XPS, Ellipsometry and Electrochemical Studies on the Passivity of Alloy-800- S V Phadnis, A Bose, J C Vyas and M K Totlani
- 190 Effect of Nitrogen Partial Pressure on the Electrochemical Evaluation of (Ti-al)N Coating Deposited by Reactive Magnetron Sputtering-K Singh, A K Grover, M K Totlani and A K Suri

- 52 Letters to the editor
- 52 Bookshelf
- 53 Obituary – I Christie FIMF
- 54 Basics of chemical & electrochemical etching – D Gabe reviews the concept & characteristics of etching
- 57 Surface engineering for lithography – R Hutchinson describes the stages of aluminium treatment for this process
- 60 The IMF over the past 4 years – outgoing Hon. Sec. Gen. A Chapman describes the initiatives taken to bring the IMF into the 21st century
- 61 Current literature – contents of recent issues of sister institute journals are presented
- 62 A new vision for engineering – RHawley reports on the birth of the Engineering & Technology Board
- 63 Practical units and conversions in surface finishing – in part(b), F Walsh, C Kerr & G Ottewill look at solution preparation & concentrations
- 64 Branch Dinner Dances – Sheffield & North-East and North-West events
- 65 Symposium reports – C Larson describes the recent E. Midlands Branch meetings on 'Chemical Milling and Etching', and 'Surface Texturing'
- 67 NiDI IMF electroforming course – T Hart describes the latest training course held at the end of April
- 68 Do cultural differences overseas matter to surface finishing firms? – C Larson explores this idea and describes research data on perceptions of UK and Germany platers

Transactions

- 123 Optimising the selection of metal cleaning processes or cleaning agents using desirability functions-A F Averill, J M Ingram and P F Nolan
- 129 Autocatalytic nickel deposition from a trifluoromethanesulfonate electrolyte-N M Martyak
- 133 Electrochemical behaviour of baths for the codeposition of Au/B 4 C composites-B Bozzini, M Serra and A Fanigliulo
- 136 Studies of structure and electrocatalytic hydrogen evolution on electrodeposited nanocrystalline Ni-Mo alloy electrodes- L Huang, F Z Yang, S K Xu and S M Zhou
- 141 Electropolishing of stainless steel – a review- S Mohan, D Kanagaraj, R Sindhuja, S Vijayalakshmi and N G Renganathan
- 143 Studies on acceleration of the low temperature zinc phosphating process-K Ravichandran and T S N Sankara Narayanan
- 146 Studies on corrosion resistance of galvanized reinforcement bars in simulated concrete environments- K Saravanan, S Muralidhavan, M Natesan, G Venhatachari and S Srinivasam
- 151 Motion study on shots passing through windows on shot blasting impellers-J Qinghe and Z Pencheng

- 34 Replacing hexavalent chromium (vol 79, pg B27, 2001) - C V Bishop and P C Wynn
34 Letter - D R Mason
37 Plating rate enhancement through the exploitation of airless, eductor Agitation -
H Williams
39 Enhancement of electrodeposition and rotating electrodes - D R Gabe
43 New chrome free metal pre-treatment systems - J H Mulder
46 Practical units and conversions in surface finishing: Part a. General information and
plating rates - F Walsh, C Kerr and G Ottewill
49 Shipley forms alliance with IBC Advanced Technologies, Inc.
49 International benchmarking in surface finishing - Adding value to the industry or
sowing confusion? - C Larson
49 New director for Shipley's Industrial and Electronic Finishes business in Europe
49 MFA elects first woman chairman

Transactions

- 85 The effect of heat treatment and surface roughness on the zincate treatment of
aluminium alloy 6082 - Y C Tang and A J Davenport
90 An electrochemical pretreatment and catalysation process for acrylonitrile-
butadiene-styrene utilising silver(II) chemistry - J E Graves, M T Goosey, D Hirst and
M A Poole
95 Electrodeposition of Zn-Fe alloys from aqueous acetate baths - S S Abd El Rehim,
M Emad, M Khaled and M Fettouhi
99 Electrolytic growth of CoMn layers from electrolytes with low Co content -
N Atanassov, M Nikolova and A Zielonka
104 Oxidized ruthenium-titanium anodes (ORTA) and the effects of additions of
manganese and germanium - L Lyutov, V Bachvarov, I Kirilova and G Raichevski
107 Texture and morphology of zinc electrodeposited from an acid sulphate Bath -
D Vasilakopoulos, M Bouroushian and N Spyrellis
118 The use of insoluble anodes in acid sulphate copper electrodeposition Solutions -
A J Cobley, D R Gabe and J E Graves
119 Amorphous cobalt-boron alloy electrodeposition and dissolution - A Subramanian,
C Shunmuganathan, T Vasudevan and V S Muralidharan

March 2001 Vol 79 part 2

- 17 Richard T. Mountford - Obituary - T Ryan
17 Tony E. Such, B.Sc., C.Chem., FRSC, FIMF 1925-2001 - Obituary - K Dennis
18 I J. E. B. Randles - an appreciation -J P G Farr
19 Head Office & Branch value - An 'open letter' to the membership - I Christie
23 Industry consulted on government competitiveness study - C Larson
24 Aluminium treatments from Chemetall
27 Replacing hexavalent chromium - P C Wynn and C V Bishop
31 New engineering and technology board to be formed
31 METCOM's new Chief Executive
31 New troubleshooting aid - "Metal finishing defects & troubleshooting" - a new concept CD-ROM
32 Molex Korea - Schloetter/ICS co-operation
32 Portable weld cleaning machine for stainless steel
32 Major electrochemical conference in Russia

Transactions

- 47 Development of aqueous-based cleaning procedures for decontaminating metal components intended for service in oxygen enriched atmospheres - A F Averill, J M Ingram and P F Nolan
52 Influence of some operating parameters on the electroplating of cobalt from acetate baths - M Emad, A M S Abulkibash and S S Abd El Rehim
56 Effects of heat-treatment processes on the electroless Ni-B coating and its natural aging mechanism - W L Rao, H W Wang, K Zhang, X L Fan and Y H Zhou
60 The structure and texture development of Ni alloy electrodeposits. 1. Nickel-iron electrodeposits - D B Lewis, C E Lehmberg and G W Marshall
68 N-methylpyrrolidone and dowanol DPM as replacements for chlorinated solvents in ultrasonic cleaning -B Niemczewski
73 I Quantification of additives in a watts nickel bath by the cyclic voltammetric stripping technique - S Mohan, R Venkatachalam, N G Renganathan and C Rajeswari
77 Determination of copper (II) in electroless copper plating solutions containing cobalt(II) complexes as reducing agent - E Norkus, P Norkus, J Valciuniene and J Jaciauskiene,
79 Chemical composition of amorphous Co-P films obtained by pulsed Electrolysis - E P Shtapenko, V A Zabludovsky, and A N Gulivets
81 Electrodeposition and structure of Ni-W-B amorphous alloy - G M Cao, F Z Yang, L Huang, Z J Niu, S K Xu and S M Zhou

- 3 Guidelines for presentation of data - F Walsh, D Hemsley and J P G Farr
5 Waste reduction in the surface treatment industry - J Bentley

Transactions

- 15 22nd Hothersall Memorial Lecture - The fascination of surface engineering - K Dennis
- 16 An investigation of the effects of magnesium levels on the kinetics and mechanism of cut edge corrosion in organically coated zinc aluminium alloy galvanised steels - S Bohm, M Challis, T Heatley and D A Worsley
- 22 AC-electrochemical cleaning versus AC-anodising of aluminium - I De Graeve, J Van de Walle and W H Terry
- 27 A study on surface state during the pretreatment of electroless nickel plating on magnesium alloys - Y H Xiang, W B Hu, X K Liu, C Z Zhao and W J Ding
- 30 Initial deposition mechanism of electroless nickel plating on magnesium Alloys - Y H Xiang, W B Hu, X K Liu, C Z Zhao and W J Ding
- 33 Investigation of cobalt sulphide coatings using the method of X-ray photoelectron spectroscopy - J Vinkevicius, N Svickus and V Jasulaitiene
- 38 Cyclic voltammetry study on the electro-oxidation mechanism of Hypophosphite - Y Jin, D B Sun, H Y Yu and D J Yang
- 41 Electroless deposition of metals - C Kerr, D Barker and F Walsh