

711
E 43/20

Volume 103, 30 July 2013

ISSN 0013-4686



ELSEVIER

Journal of the International Society of Electrochemistry

Electrochimica Acta

Available online at www.sciencedirect.com

SciVerse ScienceDirect



		Research Articles
JUN-WEN WU, WEN-JIE MEI, XUE-PING CHEN, JUN-CHEN LIU and HONG LI	1	Fabrication and evaluation of [Ru(bpy) ₂ (MPyTMPP)Cl] ⁺ -photoelectrocatalyzed TiO ₂ /ITO anode and [Cu(phen) ₂ Cl] ⁺ -electrocatalyzed SWCNTs/C cathode for photo-stimulated SO ₃ ²⁻ /H ₂ O ₂ fuel cells
GUIJIE LIANG, LIGEN ZHU, JIE XU, DONG FANG, ZIKUI BAI and WEILIN XU	9	Investigations of poly(pyrrole)-coated cotton fabrics prepared in blends of anionic and cationic surfactants as flexible electrode
JOÃO C. MALAQUIAS, MARC STEICHEN, MATTHIEU THOMASSEY and PHILLIP J. DALE	15	Electrodeposition of Cu–In alloys from a choline chloride based deep eutectic solvent for photovoltaic applications
FUCUN WANG, DENGJIE CHEN and ZONGPING SHAO	23	Composition and microstructure optimization and operation stability of barium deficient Ba _{1-x} Co _{0.7} Fe _{0.2} Nb _{0.1} O _{3-δ} perovskite oxide electrodes
E.E. ABDEL-HADY, M.M. EL-TOONY and M.O. ABDEL-HAMED	32	Grafting of glycidyl methacrylate/styrene onto polyvinylidene fluoride membranes for proton exchange fuel cell
ALBERT GUTÉS, CARLO CARRARO and ROYA MABOUDIEN	38	Nitrate amperometric sensor in neutral pH based on Pd nanoparticles on epoxy-copper electrodes
KAN HUANG, YUNFENG LI and YANGCHUAN XING	44	Increasing round trip efficiency of hybrid Li–air battery with bifunctional catalysts
GUOHUA GU, KETING HU, XUN ZHANG, XIANXUE XIONG and HUI SHA YANG	50	The stepwise dissolution of chalcopyrite bioleached by <i>Leptospirillum ferriphilum</i>
DÁMARIS SUAZO-DÁVILA and CARLOS R. CABRERA	58	X-ray photoelectron spectroscopy and electrochemical studies of ruthenium electrodeposition at 6-mercaptohexanol modified platinum electrodes
GENG ZHANG, ZHI-GANG SHAO, WANGTING LU, FENG XIE, XIAOPING QIN and BAOLIAN YI	66	Electrochemical preparation and characterization of PdPt nanocages with improved electrocatalytic activity toward oxygen reduction reaction
MOHAMMAD MAZLOUM-ARDAKANI and ALIREZA KHOSHROO	77	An electrochemical study of benzofuran derivative in modified electrode-based CNT/ionic liquids for determining nanomolar concentrations of hydrazine
ZIYAN ZHANG and WEN CHEN	85	Effect of temperature on the discharge and hydrogen evolution of lithium in alkaline aqueous solution
SHANKARA SHARANAPPA KALANUR, SANG YOUN CHAE and OH SHIM JOO	91	Transparent Cu _{1.8} S and CuS thin films on FTO as efficient counter electrode for quantum dot solar cells
FEI WANG, JUN YANG, YANNA NULI and JIULIN WANG	96	Composites of LiMnPO ₄ with Li ₃ V ₂ (PO ₄) ₃ for cathode in lithium-ion battery
DEEPAK P. DUBAL, GIRISH S. GUND, RUDOLF HOLZE, HARSHARAJ S. JADHAV, CHANDRAKANT D. LOKHANDE and CHAN-JIN PARK	103	Solution-based binder-free synthetic approach of RuO ₂ thin films for all solid state supercapacitors
MUN YEONG SON, YOUNG JUN HONG, SEUNG HO CHOI and YUN CHAN KANG	110	Effects of ratios of Li ₂ MnO ₃ and Li(Ni _{1/3} Mn _{1/3} Co _{1/3})O ₂ phases on the properties of composite cathode powders in spray pyrolysis
D. WEINGARTH, H. NOH, A. FOELSKE-SCHMITZ, A. WOKAUN and R. KÖTZ	119	A reliable determination method of stability limits for electrochemical double layer capacitors
ABBAS AFKHAM, FARZANEH SOLTANI-FELEHGARI and TAYYEBEH MADRAKIAN	125	Gold nanoparticles modified carbon paste electrode as an efficient electrochemical sensor for rapid and sensitive determination of cefixime in urine and pharmaceutical samples
XIUWEN CHENG, HUILING LIU, QINGHUA CHEN, JUNJING LI and PU WANG	134	Construction of N, S codoped TiO ₂ NCs decorated TiO ₂ nano-tube array photoelectrode and its enhanced visible light photocatalytic mechanism
MOHAMMED M. RAHMAN, SHER BAHADAR KHAN, GEORGE GRUNER, MOHAMMED SAAD AL-GHAMDI, MUHAMMED A. DAOUS and ABDULLAH M. ASIRI	143	Chloride ion sensors based on low-dimensional α-MnO ₂ –Co ₃ O ₄ nanoparticles fabricated glassy carbon electrodes by simple I–V technique
CRISZINA POZO-GONZALO, OLGA KARTACHOVA, ANGEL A.J. TORRIERO, PATRICK C. HOWLETT, ALEXEY M. GLUSHENKOV, DANIEL M. FABIJANIC, YING CHEN, SYLVIE POISSONNET and MARIA FORSYTH	151	Nanoporous transition metal oxynitrides as catalysts for the oxygen reduction reaction
D. DECONINCK, W. HOOGSTEN and J. DECONINCK	161	A temperature dependent multi-ion model for time accurate numerical simulation of the electrochemical machining process. Part III: Experimental validation
SANAZ KETABI and KERYN LIAN	174	Effect of SiO ₂ on conductivity and structural properties of PEO–EMIHSO ₄ polymer electrolyte and enabled solid electrochemical capacitors
KATALIN NEURÓHR, ATTILA CSIK, KÁLMÁN VAD, GYÖRGY MOLNÁR, IMRE BAKONYI and LÁSZLÓ PÉTER	179	Near-substrate composition depth profile of direct current-plated and pulse-plated Fe–Ni alloys
QING MAO and ULRIKE KREWER	188	Total harmonic distortion analysis of oxygen reduction reaction in proton exchange membrane fuel cells

- MEIFEN WU, ZHAOYIN WEN, JUN JIN and YANMING CUI 199 Effects of combinatorial AlCl_3 and pyrrole on the SEI formation and electrochemical performance of Li electrode
- FARIBA FATHIRAD, DARYOUSH AFZALI, ALI MOSTAFAVI, TAYEBEH SHAMSPUR and SAMIEH FOZOONI 206 Fabrication of a new carbon paste electrode modified with multi-walled carbon nanotube for stripping voltammetric determination of bismuth(III)
- ASHRAF BAKKAR and VOLKMAR NEUBERT 211 Electrodeposition and corrosion characterisation of micro- and nano-crystalline aluminium from $\text{AlCl}_3/1$ -ethyl-3-methylimidazolium chloride ionic liquid
- JUAN DU, LIFANG JIAO, QIONG WU, YONGCHANG LIU, YANPING ZHAO, LIJING GUO, YIJING WANG and HUATANG YUAN 219 Synthesis and characterization of $\text{Li}_2\text{FeP}_2\text{O}_7/\text{C}$ nanocomposites as cathode materials for Li-ion batteries
- KUN WOO KIM, HOSANG PARK, JAE GIL LEE, JONGJUNG KIM, YOUNG-UGK KIM, JI HEON RYU, JAE JEONG KIM and SEUNG M. OH 226 Capacity variation of carbon-coated silicon monoxide negative electrode for lithium-ion batteries
- C. JUSTIN RAJ, K. PRABAKAR, A. DENNYSON SAVARIRAJ and HEE-JE KIM 231 Surface reinforced platinum counter electrode for quantum dots sensitized solar cells
- XIAOYAN WANG, XINGLONG JIN, MINGHUA ZHOU, YANG LIU and XUDONG ZHANG 237 Decolorization of acid orange 7 with DC diaphragm glow discharge
- VIKTORIYA A. NIKITINA, FRANZISKA GRUBER, MARTIN JANSEN and GALINA A. TSIRLINA 243 Subsequent redox transitions as a tool to understand solvation in ionic liquids
- JIN-WOONG LEE, JUNG OH CHOI, JI-EUN JEONG, SEUNGKYU YANG, SUNG HOON AHN, KEE-WON KWON and CAROLINE SUNYONG LEE 252 Energy harvesting of flexible and translucent dye-sensitized solar cell fabricated by laser assisted nano particle deposition system
- WENHUI WANG, ZHENYU CHEN, JIAOLONG ZHANG, CHANGSONG DAI, JIAJIE LI and DALONG JI 259 A comparative structural and electrochemical study of monoclinic $\text{Li}_3\text{V}_2(\text{PO}_4)_3/\text{C}$ and rhombohedral $\text{Li}_{2.5}\text{Na}_{0.5}\text{V}_{(2-2x)/3}\text{Ni}_x(\text{PO}_4)_3/\text{C}$
- Discussion Article**
- J.R. HERNÁNDEZ-TAPIA, J. VAZQUEZ-ARENAS and I. GONZÁLEZ 266 A kinetic model to describe the nickel electro-recovery from industrial plating effluents under variable electrolyte conductivity
- Corrigenda**
- CAO CUONG NGUYEN and SEUNG-WAN SONG 275 Corrigendum to “Interfacial structural stabilization on amorphous silicon anode for improved cycling performance in lithium-ion batteries” [Electrochimica Acta, 55 (2010) 3026–3033]
- ANNA IGNASZAK, CHAOJIE SONG, WEIMIN ZHU, YAN-JIE WANG, JIUJUN ZHANG, ALEX BAUER, RYAN BAKER, VLADIMIR NEBURCHILOV, SIYU YE and STEPHEN CAMPBELL 276 Corrigendum to “Carbon-Nb_{0.07}Ti_{0.93}O₂ composite supported Pt-Pd electrocatalysts for PEM fuel cell oxygen reduction reaction” [Electrochimica Acta, 75 (2012) 220–228]
- YONGHONG BING, VLADIMIR NEBURCHILOV, CHAOJIE SONG, RYAN BAKER, ALAN GUEST, DAVE GHOSH, SIYU YE, STEPHEN CAMPBELL and JIUJUN ZHANG 277 Corrigendum to “Effects of synthesis condition on formation of desired crystal structures of doped-TiO₂/carbon composite supports for ORR electrocatalysts” [Electrochimica Acta, 77 (2012) 225–231]
- I Recent SI
- II Future SI