

ПИ
У80/С2е

Volume 18 • Number 7 • July 2014

Journal of Solid State Electrochemistry

Current Research
and Development in
Science and Technology



Editor-in-Chief

F. Scholz, Germany

Managing Editor

M. Hermes, Germany

Topical Editors

D. Aurbach, Israel

P. Balaya, Singapore

A. Doménech-Carbó, Spain

I.A. Hümmelgen, Brazil

G. Inzelt, Hungary

V.V. Kharton, Portugal

D. Mandler, Israel

S.-I. Pyun, Republic of Korea

G.A. Tsirlina, Russia



Springer

Journal of Solid State Electrochemistry

Volume 18 · Number 7 · July 2014

REVIEW

Microcapillary electrochemical droplet cells: applications in solid-state surface analysis

F. Arjmand · A. Adriaens 1779

ORIGINAL PAPERS

Improvement of electrochemical performance for Li-rich spherical $\text{Li}_{1.3}[\text{Ni}_{0.35}\text{Mn}_{0.65}]\text{O}_{2+\delta}$ modified by Al_2O_3

G. Zou · X. Yang · X. Wang · L. Ge · H. Shu · Y. Bai · C. Wu · H. Guo · L. Hu · X. Yi · B. Ju · H. Hu · D. Wang · R. Yu 1789

Fabrication and characterization of porous Si-Al films anode with different macroporous substrates for lithium-ion batteries

P. Liu · J. Zheng · Y. Qiao · H. Li · J. Wang · M. Wu 1799

Multilayered separator based on porous polyethylene layer, Al_2O_3 layer, and electro-spun PVDF nanofiber layer for lithium batteries

M.-Y. An · H.-T. Kim · D.-R. Chang 1807

Clopyralid detection by using a molecularly imprinted electrochemical luminescence sensor based on the “gate-controlled” effect

X. Li · J. Li · W. Yin · L. Zhang 1815

Palladium metal electrode and its analytical application to precipitation and acid-base analysis in aqueous and non-aqueous media

Z. Stanić · Z. Simić 1823

Dynamic analysis on metal selenide electrodeposition

F. Liu · C. Han · L. Jiang · J. Li · Y. Liu 1833

Green biosynthesis of silver nanoparticles and nanomolar detection of *p*-nitrophenol

C. Karuppiah · S. Palanisamy · S.-M. Chen · R. Emmanuel · M.A. Ali · P. Muthukrishnan · P. Prakash · F.M.A. Al-Hemaid 1847

Electrochemical corrosion resistance performance of sustainable resource-based nanoconducting polymer composites in alkaline medium

M. Kashif · N. Ahmad · S. Ahmad 1855

In situ surface reduction of a NiO-YSZ-alumina composite using scanning probe microscopy

K.V. Hansen · T. Jacobsen · K. Thyden · Y. Wu · M.B. Mogensen 1869

Nitrogen-containing nanoporous carbons by a rational template carbonization method evinced in the cases of 1, 10-phenanthroline and benzimidazole

Z.J. Zhang · M.C. Qi · X.Y. Chen · P. Cui 1879

Performance of $\text{CeO}_2-\text{TiO}_2$ -admixed photoelectrode for natural dye-sensitized solar cell

R. Upadhyay · M. Tripathi · P. Chawla · A. Pandey 1889

Synthesis of Pt_3Ni -based functionalized MWCNTs to enhance electrocatalysis for PEM fuel cells

L. Qiao · M. Liao · S. Chen · Z. Wei · S. Zhang 1893

A novel multistep dip-coating method for the fabrication of anode-supported microtubular solid oxide fuel cells

D. Panthi · A. Tsutsumi 1899

Effects of constant voltage at low potential on the formation of $\text{LiMnO}_2/\text{graphite}$ lithium ion battery

D. Yang · H. Zhao · J. Wang · Y. Sun · N. Wu · W. Tian 1907

Enhanced cycling stability of *o*- LiMnO_2 cathode modified by lithium boron oxide coating for lithium-ion batteries

A. Nagasubramanian · D.Y.W. Yu · H. Hoster · M. Srinivasan 1915

Synthesis of palladium nanoparticles supported on reduced graphene oxide-tungsten carbide composite and the investigation of its performance for electrooxidation of formic acid

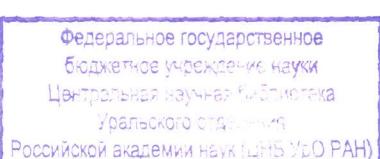
M. Shi · W. Liu · D. Zhao · Y. Chu · C. Ma 1923

Improved electrochemical properties of Sn-doped TiO_2 nanotube as an anode material for lithium ion battery

C. Yu · Y. Bai · D. Yan · X. Li · W. Zhang 1933

A novel nanocomposite matrix based on graphene oxide and ferrocene-branched organically modified sol-gel/chitosan for biosensor application

H. Peng · Z. Huang · Y. Zheng · W. Chen · A. Liu · X. Lin 1941



Mechanical and corrosion behavior of amorphous and crystalline electroless Ni–W–P coatings
A. AlZahrani · Y. Alhamed · L. Petrov · S. Armyanov · E. Valova · J. Georgieva · J. Dille **1951**

Mixed oxide semiconductors based on bismuth for photoelectrochemical applications
J.L. Ropero-Vega · A.M. Meléndez · J.A. Pedraza-Avela · R.J. Candal · M.E. Niño-Gómez **1963**

Direct electrochemical sensing of *o*-phenylenediamine based on perovskite-type nanomaterial LaNiTiO₃–Fe₃O₄
Y. Zhou · Y. Xu · X. Zhu · K. Wang · X. Yao · W. Ma · W. Zheng **1973**

A hydrogen peroxide biosensor with high stability based on gelatin-multiwalled carbon nanotubes modified glassy carbon electrode
Y. Wang · T. Li · W. Zhang · Y. Huang **1981**

Polyaniline encapsulated silicon nanocomposite as high-performance anode materials for lithium ion batteries
H.-C. Tao · X.-L. Yang · L.-L. Zhang · S.-B. Ni **1989**

Use of surfactant in aniline polymerization with TiO₂ to PANI-TiO₂ for supercapacitor performance
B.S. Singu · U. Male · P. Srinivasan · S. Pabba **1995**

Green and facile synthesis of Pt/{PW₁₂-GN} composite film and its electrocatalytic activity for methanol oxidation
L. Zhang · Z. Li · X. Huang · L. Ye · S. Lin **2005**

Cross-linking copolymers of acrylates' gel electrolytes with high conductivity for lithium-ion batteries
J. Zheng · X. Li · Y. Yu · X. Zhen · Y. Song · X. Feng · Y. Zhao **2013**

Electrochemical properties of LaY₂Ni₃ hydrogen storage alloy, used as an anode in nickel-metal hydride batteries
Y.B. Belgacem · C. Khaldi · S. Boussami · J. Lamloumi · H. Mathlouthi **2019**

Improved electrochemical performance of LiNi_{0.5}Mn_{1.5}O₄ as cathode of lithium ion battery by Co and Cr co-doping
D. Chen · B. Li · Y. Liao · H. Lan · H. Lin · L. Xing · Y. Wang · W. Li **2027**

Precipitated silica as filler for polymer electrolyte based on poly(acrylonitrile)/sulfolane
B. Kurc **2035**

Magnetic phase transformation induced by electrochemical lithium intercalation in Li_{1+x}EuTiO₄ and Li_{2+2x}Eu₂Ti₃O₁₀ (0≤x≤1) compounds
S.-H. Song · J.A. Alonso · J.-G. Cheng · J.B. Goodenough **2047**

Comment on “On the ‘simple check’ of electrocapillarity” by AY Gokhshtein
E.M. Gutman **2061**

Abstracted/Index in *Science Citation Index Expanded (SciSearch)*, *Journal Citation Reports/Science Edition*, *SCOPUS*, *INSPEC*, *Chemical Abstracts Service (CAS)*, *Google Scholar*, *EBSCO*, *Academic OneFile*, *Academic Search*, *CEABA-VtB*, *CSA Environmental Sciences*, *Current Contents/Physical, Chemical and Earth Sciences*, *EI-Compendex*, *Gale*, *OCLC*, *Referativnyi Zhurnal (VINITI)*, *SCImago*, *Summon by ProQuest*.

Instructions for Authors for *J Solid State Electrochem* are available at <http://www.springer.com/10008>.