

LIST OF PUBLICATIONS

1. Ambily Mathew, Anand venu ,G. Mohan Rao and N. Munichandraiah
Effect of Iodine concentration on the photovoltaic properties of dye sensitized solar cells for various I₂/LiI ratios
Electrochimica Acta (2013) 87, 92-96.
2. C. Selvaraj, Surender kumar, A.R. Raju and N. Munichandraiah
Symmetric supercapacitors employing MnO₂ and Polyaniline composite
Journal of Applicable chemistry. (2012) 1 (2) 272-287
3. Nayak, Prasant Kumar and N. Munichandraiah
An EQCM Investigation of capacitance of MnO₂ in electrolytes containing multivalent cations
Journal of Electroanalytical chemistry (2012) 685, 37-40.
4. Jena, Anirudha, N. Munichandraiah and S.A. Shivashankar
Morphology controlled growth of meso-porous Co₃O₄ nanostructures and study of their electrochemical capacitive behavior
Journal of the Electrochemical Society (2012), 159(10), A1682-A1689
5. Sthitaprajna dash and N. Munichandraiah
Electro catalytic oxidation of 1,2-propanediol on electrodeposited Pd-poly(3,4-Ethylenedioxythiophene) nanodendrite films in alkaline medium
Electrochimica Acta (2012) 80, 68-76.
6. P. K. Nayak and N. Munichandraiah
Mesoporous MnO₂ synthesized by hydrothermal route for electrochemical Supercapacitor studies
J. Solid State Electrochem 16 (2012) 2739-49.
7. K. Dewangan, N. N. Sinha, P.G. Chavan, P.K. Sharama, A.C. Pandey, M.A. More, D.S. Joag, N. Munichandraiah and N.S. Gajbhiye
Synthesis and characterization of self-assembled nanofiber-bundles their Electrochemical and field emission properties
Nanoscale 4 (2012) 645
8. C. Selvaraj, L.G. Scanlon and N. Munichandraiah
High capacity Li-O₂ cell employing dilithium phthalocyanine as cathode catalyst.
J. Porhyrins and Phthalocyanines (2012) 16, (3) 255-260. (Cover page article)
9. S. P. Dash, S. Patra and N. Munichandraiah
Electrooxidation of formic acid at platinum nanoclusters electrodeposited on PEDOT Coated carbon paper.
J. Appl. Electrochem. 42 (2012) 59 - 67

10. P.Ragupathy, H. N. Vasan, N. Munichandraiah and N. Vasanthacharya
In-situ preparation of PEDOT/V₂O₅ nanocomposite and its synergism for enhanced Capacitive behavior. Proceedings of SPIE (2011), 8035(Energy Harvesting and Storage: Material, Devices, and Applications II), 80350I-80350I-11. CODEN: PSISDG
ISSN:0277-786X. AN 2011:957606 CAPLUS
11. Halder, Aditi; S. Patra, B. Viswanath, N. Munichandraiah and N. Ravishankar,
Porous, catalytically active palladium nanostructures by tuning nanoparticle interactions in an organic medium. *Nanoscale* 3 (2011) 725-730
12. Ambily Mathew, N. Munichandraiah and G. Mohan Rao*
Dye sensitized solar cell based on platinum decorated multiwall carbon nanotubes as catalytic layer on the counter electrode
Mater. Res. Bull. 46 (2011) 2045 -2049
13. C.S. Nimisha, G. Venkatesh, G. Mohan Rao and N. Munichandraiah
The Effect of Electrochemical Lithiation on Physicochemical Properties of RF Sputtered Sn Thin films
J. Appl. Electrochem. 41 (2011) 1287 – 1294
14. Mahanta, Debajyoti; Munichandraiah, N.; Radhakrishnan, S.; Madras, Giridhar; Patil, Satish.
Polyaniline modified electrodes for detection of dyes.
Synthetic Metals 161(2011) 659 – 664
15. C.S. Nimisha, K. Yellaeswar Rao, G. Venkatesh, G. Mohan Rao and N. Munichandraiah
Sputter deposited LiPON thin films from powder target as electrolyte for thin film battery application
Thin Solid Films 519 (2011) 3401 - 3406.
16. C.S. Nimisha, G. Mohan Rao N. Munichandraiah, Gomathi Natarajan and David C. Cameron
Chemical and microstructural modifications in LiPON thin films exposed to atmospheric humidity
Solid State Ionics 185 (2011) 47 – 51
17. S. Patra, S. P. Dash, V. Anand, C. S. Nimisha, G. M. Rao and N. Munichandraiah
Electrochemical co-deposition of bimetallic Pt-Ru nanoclusters dispersed on poly(3,4-ethylenedioxythiophene) and electrocatalytic behavior for methanol oxidation.
Mater. Sci. Eng. B 176 (2011) 785 - 791.

18. P. K. Nayak and N. Munichandraiah
Reversible insertion of a trivalent cation into MnO_2 leading to enhanced capacitance
J. Electrochem. Soc. 158 (2011) A585 – A591
19. P. K. Nayak and N. Munichandraiah
Mesoporous MnO_2 synthesized by using a tri-block copolymer for electrochemical supercapacitor studies
Mesoporous & Microporous Mater. 143 (2011) 206 – 214
20. Ambily Mathew, N. Munichandraiah and G. Mohan Rao
Effect of TiO_2 electrode thickness on photovoltaic properties of dye sensitized solar cells based on randomly oriented titania nanotubes
Materials Chemistry and Physics 127 (2011) 95 – 101
21. K. Dewangan, N. N. Sinha, P. K. Sharma, A. C. Pandey, N. Munichandraiah and N. S. Gajbhiye
Synthesis and characterization of single-crystalline $\alpha\text{-MoO}_3$ Nanofibers for enhanced Li-Ion intercalation applications.
CrystEngComm 13 (2011) 927 - 933.
22. C.S. Nimisha, G. Venkatesh, K.H. Thulasi Raman, N. Munichandraiah and G. Mohan Rao
Process kinetics during RF sputtering of LiCoO_2 thin films for microbattery Applications.
Mater. Res. Symp. Proc. 1214 (2010) U04-51
23. S. Patra, B. Viswanath, K. Barai, N. Ravishankar and N. Munichandraiah
High surface step density on dendritic Pd leads to exceptional catalytic activity for formic acid oxidation
ACS Applied Materials and Interfaces 2 (2010) 2965 – 2969
24. P. Ragupathy, H.N. Vasani and N. Munichandraiah
Microwave driven hydrothermal synthesis of LiMn_2O_4 nanoparticles as cathode Material for Li-ion batteries.
Mater. Chem. Phys. 124 (2010) 870 – 875
25. L. G. Scanlon, L. R. Lucente, M. F. Lawson, J. W. Lawson, J. P. Fellner, W. A. Feld, P. B. Balbuena, N. Munichandraiah and H. Xiao
Low energy of activation lithium-ion conducting channel.
ECS Transactions 25 (36) 163-167 (2010).
26. P. K. Nayak, S. Devaraj and N. Munichandraiah
An EQCM investigation of electrochemical precipitation of $\text{Mn}(\text{OH})_2$ and its capacitance behavior.
Electrochem. Solid State Lett. 13 (2010) F29- F32.

27. N. N. Sinha , C. Shivakumara and N. Munichandraiah
High rate capability of dual porosity LiFePO₄/C composite.
ACS Appl. Mater. & Inter. 2 (2010) 2031 – 2038
28. N. N. Sinha and N. Munichandraiah
Single-shot preparation of crystalline nano-plate LiFePO₄ by a simple polyol route
J. Electrochem. Soc. 157 (2010) A824 – A829
29. M. Eswaran, L.G. Scanlon and N. Munichandraiah
High capacity Li-O₂ cell and electrochemical impedance spectroscopy study.
Electrochem. Solid State Lett. 13 (2010) A121 – A124
30. N. Munichandraiah
Electrocatalysis (Review).
J Indian Inst. Sci. 90 (2010) 261 – 270
31. P. K. Nayak and N. Munichandraiah
Electrochemical insertion of Sr²⁺ ions onto nano δ-MnO₂ particles.
Mater. Lett. 64 (2010) 1319 - 1321
32. N. N. Sinha and N. Munichandraiah
High rate capability of porous LiNi_{1/3}Co_{1/3}Mn_{1/3}O₂ synthesized by polymer
template route.
J. Electrochem. Soc. 157 (2010) A647 – A653
33. N. N. Sinha and N. Munichandraiah
The effect of particle size on performance of cathode materials of Li-ion batteries
(Review)
J. Indian Inst. Sci. 89 (2009) 381.
34. S. Patra and N. Munichandraiah
Electrochemical reduction of hydrogen peroxide on stainless steel substrate.
J. Chem. Sci. 121 (2009) 675 – 683
35. N. N. Sinha and N. Munichandraiah
Synthesis and characterization of carbon-coated LiNi_{1/3}Co_{1/3}Mn_{1/3}O₂ in a single step
by inverse microemulsion route.
ACS Appl. Mater. & Inter. 1 (2009) 1241 -1249
36. P. Ragupathy, D.H. Park, G. Campet, H.N. Vasan , S-J. Hwang, J-H. Choy and
N. Munichandraiah
Remarkable capacity retention of nanostructured manganese oxide upon cycling as
electrode material for supercapacitor
J. Phys. Chem. C 113 (2009) 6303 – 6309

37. S. Devaraj and N. Munichandraiah
EQCM investigation of the electrodeposition of MnO_2 and its capacitance behavior
Electrochem. Solid State Lett. 12 (2009) F21 – F25.
38. Ambily Mathew, N. Munichandraiah and G. Mohan Rao
Synthesis and magnetic studies of flower- like nickel nanocones
J. Mater. Sci and Eng. 158 (2009) 7.
39. B. Viswanath, S. Patra, N. Munichandraiah and N. Ravishanker
Nanoporous Pt with high surface area by reaction limited aggregates of nanoparticles
Langmuir 25 (2009) 3115 – 3121
40. C.S.Nimisha, M.Ganapathi, N. Munichandraiah and G. Mohan Rao
Studies on the target conditioning for deposition of LiCoO_2 films
Vaccum 83 (2009) 1001 – 1006
41. P. K. Nayak and N. Munichandraiah
Simultaneous electrodeposition of MnO_2 and Mn(OH)_2 for supercapacitor studies
Electrochem. Solid State Lett. 12 (2009) A115 – A119
42. S. Patra and N. Munichandraiah
Electrooxidation of methanol on Pt modified conductive polymer PEDOT
Langmuir 25 (2009) 1732 – 1738
43. P. Ragupathy, S. Shivakumara, H.N. Vasan and N. Munichandraiah
Preparation of nanostrip V_2O_5 by polyol method and its electrochemical characterization as cathode material for rechargeable lithium batteries
J. Phys. Chem. C 112 (2008) 16700 – 16707
44. N. N. Sinha and N. Munichandraiah
Electrochemical conversion of LiMn_2O_4 to MgMn_2O_4 in aqueous electrolytes
Electrochem. Solid State Lett. 11 (2008) F23 - F26
45. P. K. Nayak and N. Munichandraiah
Cobalt hydroxide as capacitor material: tuning its potential window
J. Electrochem. Soc. 155 (2008) A855 – A861.
46. N. N. Sinha, P. Ragupathy, H. N. Vasan and N. Munichandraiah
Electrochemical characterization of submicron size particles of LiMn_2O_4 in aqueous Electrolytes
Int. J. Electrochem. Sci. 3 (2008) 691- 710

47. S. Patra and N. Munichandraiah
Scanning electron microscopy studies of PEDOT prepared by various electrochemical routes
Synthetic Metals 158 (2008) 430 – 435
48. N. N. Sinha and N. Munichandraiah
Synthesis and characterization of sub-micron size particles of LiMn_2O_4 by microemulsion route
J. Solid State Electrochem. 12 (2008) 1619 – 1627
49. S. Devaraj and N. Munichandraiah
The effect of crystallographic structure of MnO_2 on its electrochemical capacitance properties.
J. Phys. Chem. C 112 (2008) 4406 - 4417.
50. Sujit Kumar Mondal and N. Munichandraiah
Anodic deposition of porous RuO_2 on stainless steel for supercapacitor studies at high current densities
J. Power Sources 175 (2008) 657 – 663
51. S. Patra and N. Munichandraiah
Electrooxidation of phenol on PEDOT modified stainless steel electrode
J. Electrochem. Soc. 155 (2008) F23 – F30
52. P. Ragupathy, H.N. Vasan and N. Munichandraiah
Synthesis and characterization of nano MnO_2 for electrochemical supercapacitor studies
J. Electrochem. Soc. 155 (2008) A34.
53. S. Devaraj and N. Munichandraiah
Surfactant stabilized nanoflower morphology of MnO_2 prepared by inverse microemulsion method.
J. Solid State Electrochem. 12 (2008) 207 – 211
54. N. Munichandraiah
Polymer electrolyte-ceramic composites for high energy lithium batteries, Chapter in Handbook of Nanoceramics and Their Based Devices, Eds: T.Y. Tseng and H.S. Nalwa, American Scientific Publishers (2007) submitted
55. S. Patra and N. Munichandraiah
Supercapacitor studies of electrochemically deposited PEDOT on stainless steel Substrates.
J. Appl. Polym. Sci. 106 (2007) 1160-1171

56. S. Devaraj and N. Munichandraiah
The effect of nonionic surfactant by Triton-X 100 during electrochemical deposition of MnO_2 on its capacitance properties.
J. Electrochem. Soc. 154 (2007) A901 - A909
57. S. Devaraj and N. Munichandraiah
Electrochemical capacitor studies of nano-structured $\alpha\text{-MnO}_2$ synthesized by microemulsion method and the effect of annealing.
J. Electrochem. Soc. 154 (2007) A80 – A88
58. Sujit Kumar Mondal and N. Munichandraiah
High capacitance properties polyaniline by electrochemical deposition on a porous carbon substrate
Electrochim. Acta 52 (2007) 3258 - 3264.
59. N. Munichandraiah
Synthesis and characterization of positive electrode materials for lithium-ion batteries.
Proceedings of Solid State Ionics and Applications, Bharathiar University, Coimbatore (2006) p. 53
60. P. Suresh, A.K. Shukla and N. Munichandraiah
Synthesis and characterization of LiFeO_2 and $\text{LiFe}_{0.9}\text{Co}_{0.1}\text{O}_2$ as cathode materials for Li-ion cells.
J. Power Sources 159 (2006) 1395 – 1400
61. P. Suresh, A.K. Shukla and N. Munichandraiah
Characterization of Zn and Fe substituted LiMnO_2 as cathode materials in Li-ion cells
J. Power Sources 161 (2006) 1307 - 1313.
62. S. Vivekanandhan, M. Venkateswarlu, N. Satyanarayana, P. Suresh, D.H. Nagaraju and N. Munichandraiah
Effect of calcining temperature on the electrochemical performance of nanocrystalline LiMn_2O_4 powders prepared by polyethylene glycol (PEG-400) assisted Pechni process. Mater. Lett. 60 (2006) 3212 - 3216
63. Sujit Kumar Mondal and N. Munichandraiah
The effect of low temperature treatment of polyaniline on its electrochemical activity.
J. Electroanal. Chem. 595 (2006) 78 – 86
64. Sujit Kumar Mondal and N. Munichandraiah
Surface modification of a reactive metal or alloy by polyaniline for oxidation of iodide.
J. Solid State Electrochem. 10 (2006) 78 – 82

65. P. Suresh, A.K. Shukla and N. Munichandraiah
Electrochemical properties of $\text{LiMn}_{1-x}\text{M}_x\text{O}_2$ (M = Ni, Al, Mg) as cathode materials in lithium-ion cells.
J. Electrochem. Soc. 152 (2005) A2273 – A2280
66. K. Sakthivel, N. Munichandraiah and L.G. Scanlon
Electrodeposition of adherent films of lithium phthalocyanine on platinum and stainless steel substrates by oxidation of dilithium phthalocyanine.
J. Electrochem. Soc. 152 (2005) C756 – C763.
67. S. Patra and N. Munichandraiah
Insoluble poly(anthranilic acid) confined in the Nafion membrane by chemical and electrochemical polymerization of anthranilic acid.
Synth. Met. 150 (2005) 285 - 290.
68. S. Devaraj and N. Munichandraiah
High capacitance of electrodeposited MnO_2 by the effect of a surface-active agent.
Electrochem. Solid State Lett. 8 (2005) A373 – A377
69. Sujit Kumar Mondal, K. Raman, A.K. Shukla and N. Munichandraiah
Electrooxidation of ascorbic acid on polyaniline and its implications to fuel cells.
J. Power Sources 145 (2005) 16 - 20.
70. P. Suresh, A.K. Shukla and N. Munichandraiah
Synthesis and characterization of novel, high capacity, layered $\text{LiMn}_{0.9}\text{Ni}_{0.05}\text{Fe}_{0.05}\text{O}_2$ as cathode material for Li-ion cells.
Electrochem. Solid State Lett. 8 (2005) A263 – A266
71. P. Suresh, D.H. Nagaraju, A.K. Shukla and N. Munichandraiah
Analysis of electrochemical impedance of silver oxide-zinc cells: effects of state-of-charge, temperature and cycling.
Electrochim. Acta 50 (2005) 3236 – 3272
72. N. Munichandraiah, K. Sakthivel and L.G. Scanlon
Analysis of electrochemical impedance of dilithium phthalocyanine.
Electrochem. Solid State Lett. 8 (2005) E45 – E48.
73. P. Suresh, A.K. Shukla and N. Munichandraiah
Capacity stabilization of layered $\text{LiMn}_{0.9}\text{Ni}_{0.1}\text{O}_2$ cathode employing ZnO coating.
Materials Lett. 59 (2005) 953 – 958
74. P. Suresh, A.K. Shukla, H.N. Vasan and N. Munichandraiah
Synthesis of $\text{LiCo}_{1-x}\text{Mn}_x\text{O}_2$ from a low temperature combustion route and characterization as cathode materials for Li-ion cells.
Solid State Ionics 176 (2005) 281-290

75. Sujit Kumar Mondal, K. Rajendra Prasad and N. Munichandraiah
Analysis of electrochemical impedance of polyaniline films prepared by galvanostatic, potentiostatic and potentiodynamic methods.
Synth. Met. 148 (2005) 275 – 286
76. N. Munichandraiah , Rashmi and L.G. Scanlon
Electrochemical impedance studies of dilithium phthalocyanine.
Presented in Electrochemical Society Meeting, Honolulu, Hawaii, October 2004
77. P. Elumalai, H.N. Vasan and N. Munichandraiah*
Synthesis of $\text{LiCo}_{1-x}\text{Ni}_x\text{O}_2$ by microwave dielectric heating and its physical and electrochemical characterization.
Mat. Res. Bull. 39 (2004) 1895 – 1907
78. P. Suresh, A.K. Shukla, S.A. Shivashankar and N. Munichandraiah
Rechargeable lithium cells with dendrite-free electrodeposited lithium on aluminium as negative.
J. Power Sources 132 (2004) 166-171
79. P. Elumalai, H.N. Vasan and N. Munichandraiah
Microwave synthesis and electrochemical properties of $\text{LiCo}_{1-x}\text{M}_x\text{O}_2$ (M=Al and Mg) cathodes for Li-ion rechargeable batteries.
J. Power Sources 125 (2004) 77-84.
80. N. Munichandraiah*, K. McGrath, G.K. Surya Prakash, R. Aniszeld and G.A. Olah
A potentiometric method of monitoring methanol crossover through polymer electrolyte membranes of direct methanol fuel cells.
J. Power Sources 117 (2003) 98 - 101
81. P. Suresh, S. Rodrigues, A.K. Shukla, S.A. Shivashankar and N. Munichandraiah
Synthesis of $\text{LiCo}_{1-x}\text{Ni}_x\text{O}_2$ from low temperature solution combustion route and electrochemical characterization.
J. Power Sources 112 (2002) 665 - 670.
82. K. Rajendra Prasad and N. Munichandraiah
Electrochemical studies of polyaniline in a gel polymer electrolyte: High energy and high power characteristics of a solid-state redox supercapacitor.
Electrochemical and Solid State Letters 5 (2002) A271 – A274
83. K. Rajendra Prasad and N. Munichandraiah
Fabrication and evaluation of 450 F electrochemical redox supercapacitors using inexpensive and high performance polyaniline coated stainless steel electrodes.
J. Power Sources 112 (2002) 443 – 451

84. K. Rajendra Prasad and N. Munichandraiah
Electrooxidation of ascorbic acid on a polyaniline-deposited nickel electrode:
Surface modification of a non-platinum metal for an electrooxidative analysis.
Anal. Chem. 74 (2002) 5531 - 5537
85. N. Munichandraiah, B. Kumar and S. Rodrigues
Ionic conductivity and ambient temperature Li electrode reaction in composite solid
polymer electrolytes containing nanosize alumina.
J. Power Sources 111 (2002) 165 – 172
86. P. Elumalai, H.N. Vasan, N. Munichandraiah* and S.A. Shivashankar
Kinetics of hydrogen evolution on submicron size Co, Ni, Pd and Co-Ni alloy
powder electrodes by dc polarization and ac impedance studies.
J. Appl. Electrochem. 32 (2002) 1005 – 1010
87. K. Rajendra Prasad and N. Munichandraiah
Potentiodynamically deposited polyaniline on stainless steel: Inexpensive, high-
performance electrodes for electrochemical supercapacitors.
J. Electrochem. Soc. 149 (2002) A1393 – A1399
88. K. Rajendra Prasad and N. Munichandraiah
Electrochemically deposited crystalline thin film of polyaniline on Ni for redox
reactions at positive potentials.
Synth. Met. 130 (2002) 17 – 26
89. P. Suresh, A.K. Shukla, S.A. Shivashankar and N. Munichandraiah
Electrochemical behavior of aluminium in non-aqueous electrolytes over a wide
potential range.
J. Power Sources 110 (2002) 11 – 18
90. K. Rajendra Prasad and N. Munichandraiah
A polyaniline deposited non-platinum metal as potentiometric sensor – an inexpensive
alternate to conventional platinum for some potentiometric redox titrations.
The Chem. Educator 7 (2002) 84 – 89
91. P. Suresh, A.K. Shukla and N. Munichandraiah
Temperature dependence studies of ac impedance of lithium-ion cells.
J. Appl. Electrochem. 32 (2002) 267 – 273
92. K. Rajendra Prasad and N. Munichandraiah
Electrocatalytic efficiency of polyaniline by cyclic voltammetry and electrochemical
impedance spectroscopy studies.
Synth. Met. 126 (2002) 61 – 68

93. K. Rajendra Prasad and N. Munichandraiah
Electrooxidation of methanol on polyaniline without dispersed catalyst particles.
J. Power Sources 103 (2002) 300 – 304
94. G. Girish Kumar and N. Munichandraiah
Polymethylmethacrylate-magnesium triflate gel polymer electrolyte for solid-state rechargeable magnesium battery application.
Electrochim. Acta 47 (2002) 1013 – 1022
95. S. Rodrigues, N. Munichandraiah and A.K. Shukla
Ac impedance behavior and state-of-charge dependence of $Zr_{0.5}Ti_{0.5}V_{0.6}Cr_{0.2}Ni_{1.2}$ metal hydride electrodes.
Proc. Indian Acad. Sci. 113 (2001) 527 – 537
96. G. Girish Kumar and N. Munichandraiah
Solid-state rechargeable magnesium cell with a gel polymer electrolyte of PVDF-MgTr.
J. Power Sources 102 (2001) 46 - 54.
97. S. Rodrigues, N. Munichandraiah and A.K. Shukla
Novel solution-combustion synthesis of $LiCoO_2$ and its characterization for lithium-ion battery.
J. Power Sources 102 (2001) 323 - 326.
98. K. Rajendra Prasad and N. Munichandraiah
Potentiodynamic deposition of polyaniline on non-platinum metals and characterization.
Synth. Met. 123 (2001) 459 – 468
99. P. Elumalai, H.N. Vasan and N. Munichandraiah
Electrochemical studies of cobalt hydroxide – an additive for nickel electrodes.
J. Power Sources 93 (2001) 202 – 209
100. G. Girish Kumar and N. Munichandraiah
Ageing of magnesium/manganese dioxide primary cells.
J. Solid State Electrochem. 5 (2001) 8 – 16
101. G. Girish Kumar and N. Munichandraiah
Electrochemical investigations related to solid-state magnesium batteries.
Poster presentation.
Proceedings of Modern Trends in Inorganic Chemistry held in Indian Institute of Science, Bangalore, January 18 – 20, 2000, p. 34.
102. N. Munichandraiah
Electrochemistry of lithium-ion batteries.
Insight 3 / 4 (2000) 2

103. G. Girish Kumar and N. Munichandraiah
Effect of plasticizers on magnesium-poly(ethyleneoxide) polymer electrolyte.
J. Electroanal. Chem. 495 (2000) 42 – 50
104. S. Rodrigues, N. Munichandraiah and A. K. Shukla
Kinetics of hydrogen evolution reaction at a $Zr_{0.5}Ti_{0.5}V_{0.6}Cr_{0.2}Ni_{1.2}$ metal
hydride alloy. Bull. Materials Sci. 23 (2000) 383 – 391
105. G. Girish Kumar and N. Munichandraiah Solid state Mg/MnO₂ cell employing a gel
polymer electrolyte of magnesium triflate.
J. Power Sources 91 (2000) 151 – 154
106. S. Rodrigues, N. Munichandraiah and A.K. Shukla
A.c. impedance and state-of-charge analysis of alkaline Zn/MnO₂ primary cells.
J. Appl. Electrochem. 30 (2000) 373 – 379
107. S. Rodrigues, N. Munichandraiah and A.K. Shukla
A review of state-of-charge indication of batteries by a.c. impedance measurements.
J. Power Sources 87 (2000) 12 - 20
108. K. M. Shaju, V. Ganesh Kumar, R. Shalini, N. Munichandraiah and A. K.
Shukla*
Effect of morphology on the performance of metal-hydride electrode.
J. Appl. Electrochem. 30 (2000) 349 -359
109. G. Girish Kumar and N. Munichandraiah
A gel polymer electrolyte of magnesium triflate.
Solid State Ionics 128 (2000) 203 - 210.
110. S. Rodrigues, N. Munichandraiah and A.K. Shukla
Fabrication and evaluation of 1-Ah silver/metal hydride cells.
J. Appl. Electrochem. 29 (1999) 1285-1289
111. K.M. Shaju, V. Ganesh Kumar, N. Munichandraiah and A.K. Shukla
Performance and scaling of a 1.2 V/1.5 Ah nickel-metal hydride cell to a 6 V / 1.5 Ah
battery.
J. Solid State Electrochem. 3 (1999) 464-469
112. P. Elumalai, N. Munichandraiah and H.N. Vasana
A note on overpotential dependence of a.c. impedance data.
J. Solid State Electrochem. 3 (1999) 470-473
113. G. Girish Kumar and N. Munichandraiah
Reversibility of Mg/Mg²⁺ couple in a gel polymer electrolyte.
Electrochim. Acta 44 (1999) 2663-2667

114. S. Rodrigues, N. Munichandraiah and A.K. Shukla
AC impedance and state-of-charge analysis of a rechargeable lithium-ion battery.
J. Solid State Electrochem. 3 (1999) 397-405
115. N. Munichandraiah
Electrochemical impedance studies of a decade-aged magnesium/manganese dioxide primary cell.
J. Appl. Electrochem. 29 (1999) 463-471
116. M. Dixit, R.S. Jayashree, P.V. Kamath*, A.K. Shukla, V.G. Kumar and N. Munichandraiah
Electrochemically impregnated aluminium stabilized α -nickel hydroxide electrode.
Electrochemical and Solid State Letters 2 (1999) 170-171.
117. N. Munichandraiah
Polymer electrolytes for solid state rechargeable lithium batteries
Proc. National Symposium on Electrochem. in Aerospace Systems, ISRO Satellite Centre,
Bangalore (1998) 151-154
118. V. Ganesh Kumar, K.M. Shaju, N. Munichandraiah and A.K. Shukla
A commercial grade 1.2 V/6 Ah nickel-metal hydride cell.
J. Power Sources 76 (1998) 106-112
119. S. Rodrigues, N. Munichandraiah and A.K. Shukla
A cyclic voltammetric study of the kinetics and mechanism of electrodeposition of manganese dioxide.
J. Appl. Electrochem. 28 (1998) 1235-1241
120. A.K. Shukla, V. Ganesh Kumar, N. Munichandraiah and T.S. Srinath
A method to monitor valve regulated lead-acid cells.
J. Power Sources 74 (1998) 234-239
121. N. Munichandraiah, L.G. Scanlon and R.A. Marsh
Surface films of lithium. An overview of electrochemical studies.
J. Power Sources 72 (1998) 203-210.
122. A.K. Shukla, N. Munichandraiah, S.N. Joshi and S. Shukla
Advances in storage batteries.
Trans. Indian Inst. Metals 51 (1998) 255-260
123. N. Munichandraiah, L.G. Scanlon and R.A. Marsh
Preparation and characterization of a hybrid solid polymer electrolyte consisting of poly(ethyleneoxide) and polyacrylonitrile for polymer battery-application.
Proc. of the 32nd Intersociety Energy Conversion Engineering Conference held at Honolulu, Vol. 1(1997) 13-18

124. G. Sivasankar, V. Ganesh Kumar, N. Munichandraiah and A.K. Shukla
A rapid-combustion synthesis of LiCoO_2 cathode material for lithium-ion cells.
Int. J. Self-Propagating High-Temperature Synthesis 6 (1997) 77-81
125. N. Munichandraiah, G. Sivasankar, L.G. Scanlon and R.A. Marsh
Characterization of PEO-PAN hybrid solid polymer electrolytes
J. Appl. Polymer Science 65 (1997) 2191-2199
126. V. Ganesh Kumar, N. Munichandraiah and A.K. Shukla
Electrode impedance parameters and internal resistance of sealed LiC/LiCoO_2 lithium-ion rechargeable battery.
J. Appl. Electrochem. 27 (1997) 43-49
127. V. Ganesh Kumar, N. Munichandraiah and A.K. Shukla
Electrode impedance parameters and internal resistance of a sealed nickel-metal hydride cell. J. Power Sources 63 (1996) 203-208
128. M. Dixit, P.V. Kamath, V. Ganesh Kumar, N. Munichandraiah and A.K. Shukla
An electrochemically impregnated sintered nickel electrode.
J. Power Sources 63(1996) 167-171
129. N. Munichandraiah, A.K. Shukla, L.G. Scanlon and R.A. Marsh
On the stability of $\text{Li/PEO}_8\text{LiClO}_4/\text{Li}$ symmetrical cells.
J. Power Sources 62 (1996) 201-206
130. P.C. Ray, N. Munichandraiah and P.K. Das
Dissociation constants of some substituted cinnamic acids in protic solvents :Measurements by hyper-Rayleigh scattering and potentiometric techniques.
Chem. Physics 211(1996) 499-505
131. V. Ganesh Kumar, N. Munichandraiah, P.V. Kamath and A.K. Shukla
On the performance of stabilized α -nickel hydroxide as a nickel positive electrode in alkaline storage batteries.
J. Power Sources 56 (1995) 111-114
132. N. Munichandraiah, L.G. Scanlon, R.A. Marsh, B. Kumar and A.K. Sircar
Influence of zeolite on electrochemical and physicochemical properties of poly(ethyleneoxide) solid electrolyte.
J. Appl. Electrochem. 25 (1995) 857-863
133. P.V. Kamath, M. Dixit, L. Indira, A.K. Shukla, V. Ganesh Kumar and N. Munichandraiah
Stabilized α -nickel hydroxide as electrode material for alkaline secondary batteries.
J. Electrochem. Soc. 141 (1994) 2956-2959

134. N. Munichandraiah, L.G. Scanlon, R.A. Marsh, B. Kumar and A.K. Sircar
Ionic conductivity and lithium electrode stability in Hydrin:LiBF₄ elastomers.
J. Appl. Electrochem. 24 (1994) 1066-1072
135. B. Kumar, J.D. Schaffer, N. Munichandraiah and L.G. Scanlon
An electrochemical study of PEO:LiBF₄ - glass composite electrolytes.
J. Power Sources 47(1994) 63-78
136. N. Munichandraiah, L.G. Scanlon, R.A. Marsh, B. Kumar and A.K. Sircar
Determination of the exchange current density of Li⁺ + e⁻ = Li reaction in polymer electrolytes by galvanostatic linear polarization of symmetrical cells.
J. Electroanal. Chem. 379 (1994) 495-499
137. B. Kumar, J.D. Schaffer, N. Munichandraiah and P.T. Weissman
Electrochemical performance of PEO:LiBF₄ and PEO:LiBF₄-glass composite electrolytes.
Power Sources 14, Proc. 18th International Power Sources symposium, Stratford-upon-Avon, (1993) 121-130
138. N. Munichandraiah, L.G. Scanlon, R.A. Marsh, B. Kumar and A.K. Sircar
Studies on the composite polymer electrolyte of poly(ethyleneoxide) and zeolite.
Proc. Electrochem. Soc. Meeting held at Honolulu, 93-1 (1993) 87-111.
139. T. Mimani, S.M. Mayanna and N. Munichandraiah
Influence of additives on the electrodeposition of nickel from a Watts bath: A cyclic voltammetric study.
J. Appl. Electrochem. 23 (1993) 339-345
140. N. Munichandraiah
Physicochemical properties of electrodeposited β-lead dioxide: Effect of deposition current density.
J. Appl. Electrochem. 22 (1992) 825-829
141. N. Munichandraiah
Potentiodynamic behaviour of β-lead dioxide in neutral media at positive potentials.
J. Electroanal. Chem. 309 (1991) 199-211
142. N. Munichandraiah
The influence of switching potential on the cyclic voltammetric behaviour of polyaniline.
J. Electrochem. Soc. India 39(1990) 139-143

143. N. Munichandraiah and S. Sathyanarayana
The influence of some fluoroanions on anodic oxidation of chlorate ion to perchlorate ion at lead dioxide electrode.
J. Appl. Electrochem. 20(1990) 1059-1062
144. N. Munichandraiah
Voltammetric studies of Pd(II) ammonia complex : Effect of supporting electrolyte.
J. Electrochem. Soc. India 39(1990) 16-20.
145. N. Munichandraiah
Electrical double-layer studies of lead dioxide powder.
J. Electroanal. Chem. 266 (1989) 179-184
146. N. Munichandraiah, H.N. Shivananjaiiah and R.R. Iyengar
Voltammetric studies of Pd(II) ammonia complex: Solvent effect.
Indian J. Chem. 28A (1989) 561-564
147. N. Munichandraiah and S. Sathyanarayana
Insoluble anode of α -lead dioxide coated on titanium for electrosynthesis of sodium perchlorate.
J. Appl. Electrochem. 18 (1988) 314-316
148. N. Munichandraiah and S. Sathyanarayana
Kinetics and mechanism of anodic oxidation of chlorate ion to perchlorate ion on lead dioxide electrode.
J. Appl. Electrochem. 17 (1987) 33-48
149. N. Munichandraiah and S. Sathyanarayana
Insoluble anodes of porous lead dioxide for electrosynthesis: Preparation and characterization.
J. Appl. Electrochem. 17 (1987) 22-33
150. S. Sathyanarayana and N. Munichandraiah
A new magnesium-air cell for long life applications.
J. Appl. Electrochem. 11 (1981) 33-39.

Book – Chapters

1. N. Munichandraiah.
“Polymer electrolyte-ceramic composites for high energy lithium batteries” in Handbook of Nanoceramics and their based Nanodevices Volume 2, edited by T-Y Tseng and H.S. Nalwa, American Scientific Publishers, USA (2009).
2. P. Suresh, N. Munichandraiah and A.K. Shukla
“Positive electrode materials of lithium-ion batteries – a review” in Photo/electrochemistry & Photobiology in the Environment, Energy and Fuel, edited by S. Kaneco, B. Viswanathan and H. Katsumata, Research Signpost, India (2007).

PRESENTATIONS AT CONFERENCES / SYMPOSIA
(2005 – 2010)

1. N. Munichandraiah
 - a. Energy crisis: Challenges in development of advanced batteries
International workshop on Advanced Energy Materials (IWAEM – 2012),
Alagappa University, Karaikudi (09 February 2012).
2. N. Munichandraiah
Electrochemical supercapacitor studies of MnO₂ in electrolytes of multivalent
Cations (Invited talk)
Sixth Asian Conference on Electrochemical Power Sources, Chennai (5-8 Jan 2012).
3. P. Ragupathy, H. N. Vasan, N. Munichandraiah, N. Y. Vasanthacharya
In-situ preparation of PEDOT / V₂O₅ nanocomposite and its synergism for enhanced
Capacitive behavior
SPIE International Conference, Orlando, USA (25 April 2011)
4. N. Munichandraiah
Energy crisis: Challenges in development of batteries
Exotic Research Work in Physics, Government Science College, Bangalore (30
March 2011)
5. N. Munichandraiah
Electrochemical energy conversion: Lithium batteries and supercapacitors
Second National Conference on Multifunctional Nanomaterials and Nanocomposites,
Bharathiar University, Coimbatore (25 March 2011).
6. N. Munichandraiah
Electrochemistry – Application in Batteries
Refresher Course in Chemistry for PU College Lecturers, Jain University, Bangalore (8
December 2010).
7. N. Munichandraiah
Electrochemical supercapacitor studies of MnO₂
Taiwan – India Bilateral Symposium on Electrochemical Energy Conversion, National
Central University, Taipei, Taiwan (30 November 2010).
8. N. Munichandraiah
Li-air Batteries
Indo-USA Roundtable, NIAS, Bangalore (22 September 2010).
9. N. Munichandraiah
Electrochemical supercapacitor studies of MnO₂
Indo-Italian Workshop on Electrochemistry, University of Delhi (30 August 2010)

10. N. Munichandraiah
Electrochemical Power Sources
B.N.M. Institute of technology, Bangalore (26 August 2010).
11. N. Munichandraiah
Basic concepts of advanced battery technology (Invited talk)
Dayananda Sagar College of Engineering, Bangalore (April 2010).
12. N. Munichandraiah
Electrochemistry of Conducting Polymers (Invited talk)
Sri Krishnadevaraya University, Anantapur (February 2010).
13. N. Munichandraiah
Electrochemical supercapacitors employing nanostructured MnO₂ (Invited talk)
Sri Venkateswara University, Tirupati (February 2010).
14. Nupur Nikkan Sinha and N. Munichandraiah
Porous LiNi_{1/3}Co_{1/3}Mn_{1/3}O₂ synthesized by polymer template route in a microemulsion medium for high rates of cycling and stable capacity (poster presentation)
In Modern Trends In Inorganic Chemistry, (MTIC-XIII), Indian Institute of Science, Bangalore, India. (December 2009).
15. L.G. Scanlon, J.W. Lawson, M.F. Lawson, W. Feld, J.P. Fellner, P. Balbuene and N. Munichandraiah
Low Energy of Activation Lithium-ion Conducting Channel (oral presentation)
ECS Meeting, Vienna (October 2010).
16. Nupur Nikkan Sinha and N. Munichandraiah
Synthesis and characterization of carbon-coated LiNi_{1/3}Co_{1/3}Mn_{1/3}O₂ cathode material for Li-ion batteries,(oral presentation)
5th International Conference on Materials for Advanced Technologies (ICMAT & IUMRS-ICA' July 09). Singapore (July 2009)
17. N. Munichandraiah
Electrochemistry of Advanced Batteries (invited talk)
UGC sponsored symposium on battery technology - a novel power device
SJR College of Science and Commerce, Bangalore (March 2009).
18. S. Patra and N. Munichandraiah
Electrooxidation of methanol on nanoclusters of Pt and Pt-Ru dispersed on conductive polymer PEDOT⁺ (poster presentation).
Hydrogen and Hydrogen storage; Methods and Materials⁺ at Indian Institute of Science, Bangalore, (January 2009).

19. N.Munichandraiah
Chemistry of Batteries (invited talk)
Karnataka Rajya Vijnana Parishat discussion Meeting, Yadgir (December 2009).
20. N.Munichandraiah
Chemistry of Batteries (invited talk)
Karnataka Rajya Vijnana Parishat discussion Meeting, Karwar (August 2009)
21. N.Munichandraiah
Advanced Electrochemical Power systems (invited talk)
UGC sponsored conference on Energy Materials, Central College, Bangalore
University (March 2009).
22. Prasant Kumar Nayak and N. Munichandraiah
Surface precipitation of Cobalt hydroxide electrochemically on stainless steel for
supercapacitor studies (oral presentation)
National Conference on Recent Trends in Surface Engineering (RASE-09),Bangalore,
(February 2009)
23. Prasant Kumar Nayak and N. Munichandraiah
Cobalt hydroxide as a capacitor material: tuning its potential window (oral
presentation).
International Conference on Electrochemical Power Systems (ICEPS-2008),
Trivandrum, (November 2008).
24. N. Munichandraiah
Electrooxidation of small organic molecules on Pt and Pt-Ru nanoclusters supported
on conductive polymer PEDOT (Invited talk).
International Conference on Electrochemical Power Systems (ICEPS-2008),
Trivandrum, (November 2008).
25. N. Munichandraiah and S. Patra
Electrooxidation of methanol on nanoclusters of Pt supported on PEDOT (oral
presentation)
ECS Meeting, Honolulu, Hawaii (October 2008)
26. N. Munichandraiah
Electrochemistry of Li-ion batteries and supercapacitors
DST workshop on Electrochemistry, CECRI, Karikudi (September 2008).
27. Nupur Nikkan Sinha and N. Munichandraiah
Synthesis and characterization of sub-micron size particles of LiMn_2O_4 by
microemulsion route (oral presentation)
Millennium Energy Summit (MES-2007) CGCRI, Kolkata, India (Sept. 2007).

28. Nupur Nikkan Sinha and N. Munichandraiah
The preparation and electrochemical characterization of nanoscale LiFePO_4 as a cathode material for Li-ion battery (poster presentation)
PSSARA in DRDO, Hyderabad, India (2006).
29. S. Patra and N. Munichandraiah
Electrochemical deposition of poly(3,4-ethylenedioxythiophene) and its application in electrochemical supercapacitor studies (poster presentation)
International Conference on Electrochemical Power Systems, National Institute of Oceanography, Goa, (November 2006).
30. S. Devaraj and N. Munichandraiah,
Electrodeposition of MnO_2 in the presence of a neutral surfactant for supercapacitor studies
International Symposium on Advanced Electrochemical Science and Technology", Goa, India (2006).
31. S. Devaraj and N. Munichandraiah,
Synthesis and electrochemical supercapacitor studies on nanostructured MnO_2 (oral presentation).
Emerging Trends in Power Sources Systems for Aerospace and Related Applications, Research Centre Imarat, DRDO, Hyderabad, India. (2006).
32. Sujit Kumar Mondal and N. Munichandraiah
High capacitance properties of polyaniline by electrochemical deposition on a porous carbon substrate (oral presentation)
PSSARA in DRDO, Hyderabad, India (2006)
33. N. Munichandraiah and S. Devaraj
Electrochemical Supercapacitor Studies of Nano Structured MnO_2 (oral presentation).
MRS Conference, Boston, Symposium BB; Mobile Energy , (November 27 -29 , 2006).
34. N. Munichandraiah
Synthesis and characterization of positive electrode materials for lithium-ion Batteries (Invited talk).
Solid State Ionics and Applications, Bharathiar University, Coimbatore (2006).
35. K. McGrawth, N. Munichandraiah, G.K.S. Prakash and G.A. Olah
Electrochemical impedance of a direct methanol fuel cell with PAAS-PVDF composite membrane (poster presentation).
208th ECS Meeting, Los Angeles (October 2005).

36. P. Suresh, A. K. Shukla and N. Munichandraiah, Electrochemical properties of $\text{LiMn}_{1-x}\text{M}_x\text{O}_2$ (M = Ni, Al, Mg, Fe and Zn), (oral presentation). International conference on Materials for advanced technologies (ICMAT), Singapore (2005).
37. Sujit Kumar Mondal and N. Munichandraiah
A polymer membrane electrolyte fuel cell using polyaniline as anode catalyst and ascorbic acid as fuel (oral presentation).
3rd International Conference on Materials for Advanced Technologies (ICMAT 'July 05) and 9th International Conference on Advanced Materials (ICAM 'July 05). Singapore (2005).