

# CURRICULUM VITAE

Raman Vedarajan, PhD

Scientist

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## Education



- Jan 2002 – Jun 2006* **Anna University, Chennai**  
Doctor of Philosophy, Electrochemical Surface Modification, Morphological Investigation, Electrochemistry,  
Chennai, Tamil Nadu, India
- Aug 2000 – Aug 2001* **Anna University, Chennai**  
Master of Philosophy, Materials, Coatings, Electrochemistry  
Chennai, Tamil Nadu, India
- Apr 1998 – Mar 2000* **Sri Sathya Sai Institute of Higher Learning**  
Master of Science, Chemistry  
Puttaparthi, Andhra Pradesh, India
- Apr 1995 – Mar 1998* **Sri Sathya Sai Institute of Higher Learning**  
Bachelor of Science (Hon's), Chemistry  
Puttaparthi, Andhra Pradesh, India

## Research Experience

- Aug 2017 – present* **Scientist**  
International Advanced Research Centre for Powder Metallurgy and New Materials, Center for Fuel Cell Technology  
India
- May 2012 – Jul 2017* **Professor (Assistant)**  
Japan Advanced Institute of Science and Technology, School of Materials Science (JAIST)  
Komatsu, Japan
- Apr 2010 – Apr 2012* **Scientist**

International Advanced Research Centre for Powder Metallurgy and New  
Materials,  
Chennai, Tamil Nadu, India

*Nov 2009 – Mar 2010* **PostDoc Fellow**  
Nagoya University, Graduate of Bio-Agricultural Sciences  
Japan

*Oct 2006 – Oct 2009* **PostDoc Fellow**  
National Institute for Materials Science, Research Center for Strategic  
Materials  
Tsukuba, Ibaraki, Japan

*Apr 2004 – Mar 2006* **International Exchange Researcher**  
Osaka University, Department of Materials and Manufacturing Science  
Suita, Ōsaka, Japan

## Interests & Activities

*Interests* Solid State Electrochemistry, Polymer Electrolyte Membrane Fuel Cell,  
Organic-inorganic hybrid Materials Chemistry, Corrosion, Surface  
Modification

*Scientific Memberships*

1. American Chemical Society
2. Electrochemical Society
3. Society for Polymer Science Japan
4. Chemical Society of Japan

## Awards & Grants

1. MEXT–MHRD – Japanese Government Scholarship Exchange Fellow 2004 – 2006, Osaka University Japan.
2. Co-Investigator of India-Japan Co-operative Science Program – JSPS-DST Collaborative Research between JAIST, Japan and Center For Fuel Cell Technology, ARCI, India – Project entitled “Organoboron organic- inorganic hybrids as solid electrolyte for Li batteries with graphene based anodes” (2013-2015)
3. Member of Toyota National Project [TherMAT (NEDO)]

## Patents

1. Japanese Patent No: 2013-231393  
Inventor : Noriyoshi MATSUMI, RamanVEDARAJAN, Rajashekar Badam
2. Japanese Patent No:2014-048015  
Inventor : Noriyoshi MATSUMI, Raman VEDARAJAN, Kamiya JAIN  
Masaki WATANABE, Mamoru ISHIKIRIYAMA
3. Japanese Patent No:2014-046765  
Inventor : Noriyoshi MATSUMI, Raman VEDARAJAN, Puhup PUNEET
4. Japanese Patent No:2014-187671  
Inventor : Noriyoshi MATSUMI, Raman VEDARAJAN, Shoto IKEDA
5. Japanese Patent No:2014-178542  
Inventor : Noriyoshi MATSUMI, Raman VEDARAJAN, Surabhi GUPTA, Kamiya JAIN,  
Masaki WATANABE, Mamoru ISHIKIRIYAMA
6. US Patent: WATER VAPOR ADSORPTION-DESORPTION MATERIAL AND METHOD FOR MEASURING LCST BEHAVIOR Publication date: 2016/03/03 Application Number:14/842490  
Inventors: MasakiWATANABE, MamoruISHIKIRIYAMA, NoriyoshiMATSUMI, Raman VEDARAJAN, SurabhiGUPTA, KamiyaJAIN

## Book Chapters

1. Microstructure of the Rust Formed on Si-Al Bearing Ultrafine-Grained Weathering Steel, Microstructure and Texture in Steels, ISBN 978-1-84882-453-9. Springer London, (2009) 431
2. Atmospheric corrosion resistance of stainless steel in saline environment, Advances in Stainless Steels, By Ra, Baldev, et al. (Eds.) (45)(2009) 647.
3. Pitchaimuthu Sudhagar, Nitish Roy, Raman Vedarajan, AnithaDevadoss, Chiaki Terashima, Kazuya Nakata, Akira Fujishima: *Hydrogen and CO2 Reduction Reactions: Mechanisms and Catalysts*. Photoelectrochemical Solar Fuel Production, 04/2016: pages 105-160; , ISBN: 978-3-319-29639-5, DOI:10.1007/978-3-319-29641-8\_3
4. Energy Materials and Energy Harvesting September 2020 DOI:10.1201/9780429298035-5 In book: Functional and Smart Materials
5. Advanced nanocatalysts for fuel-cell technologies January 2020 DOI: 10.1016/B978-0-12-819355-6.00006-6 In book: Nanomaterials for Sustainable Energy and Environmental Remediation
6. Multiphase Flow its Application in Water Management and Harvesting in Fuel Cells; January 2019; DOI: 10.1007/978-981-13-3256-2 10 In book: Two-Phase Flow for Automotive and Power Generation Sectors
7. TMCs/Polymer Composite Electrocatalysts for I-Mediated Dye-Sensitized Solar Cells; September 2018; DOI: 10.1002/9783527813636.ch10, In book: Counter Electrodes for Dye-sensitized and Perovskite Solar Cells

## Journal Publications

1. Prerna Joshi, Raman Vedarajan, Anjaiah Sheelam, Noriyoshi Matsumi An all solid-state Li ion battery composed of low molecular weight crystalline electrolyte February 2020 RSC Advances 10(15):8780-8789 DOI: 10.1039/C9RA09559D
2. T. Ramesh, Raman Vedarajan, N. Rajalakshmi, Ram Gopal Reddy Lekkala; Dynamic electrochemical impedance spectroscopy as a rapid screening tool for supercapacitor electrode materials; January 2020; Journal of Materials Science: Materials in Electronics 31(2):1-10 DOI: 10.1007/s10854-019-02686-y
3. Sai Gourang Patnaik, Raman Vedarajan, Noriyoshi Matsumi, Rational design of a BIAN-based multi-functional additive for higher durability and performance of  $\text{LiMn}_{1/3}\text{Ni}_{1/3}\text{Co}_{1/3}\text{O}_2$  cathodes; June 2019 Molecular Systems Design & Engineering 4(4) DOI: 10.1039/c9me00046a
4. In situ sol-gel preparation of  $\text{ZrO}_2$  in nano-composite polymer electrolyte of PVDF-HFP/MG49 for lithium-ion polymer battery; LeeTian Khoon, Lee Mark Lee, Nur Hasyareeda Hassan, Raman Vedarajan, Azizan Ahmad; June 2019 Journal of Sol-Gel Science and Technology 90(6) DOI: 10.1007/s10971-019-04936-1
5. Santhosh Bukka, Rajashekar Badam, Raman Vedarajan, Noriyoshi Matsumi; Photo-generation of ultra-small Pt nanoparticles on carbon-titanium dioxide nanotube composites: A novel strategy for efficient ORR activity with low Pt content; February 2019 International Journal of Hydrogen Energy 44(10) DOI: 10.1016/j.ijhydene.2019.01.004
6. Aniruddha Nag, Asif Ali, Ankit Singh, Ramna Vedarajan, Tatsuo Kaneko; boronated polybenzimidazole for composite electrolyte design of highly ion conductive pseudo solid-state ion gel electrolytes with high Li-transference number; December 2018, Journal of Materials Chemistry A 7(9) DOI: 10.1039/C8TA10476J
7. Santhosh Bukka, Yuhei Umehara, Koichi Higashimine, Rajashekar Badam, Raman Vedarajan, Noriyoshi Matsumi: *Ultrafast electrochemical deposition of core shell metal nanoparticles on  $\text{TiO}_2$  nano tubes for electrocatalytic applications*. Materials Research Express 08/2018; DOI:10.1088/2053-1591/aadc82
8. Puhup Puneet, Raman Vedarajan, Noriyoshi Matsumi: *Electrochemical evaluation of the rapid self-healing behavior of poly(borosiloxane) and its use for corrosion protection of metals*. Electrochemistry Communications 05/2018; 93., DOI:10.1016/j.elecom.2018.05.022
9. Kumar Sai Smaran, Rajashekar Badam, Raman Vedarajan, Noriyoshi Matsumi: *Flame-retardant properties of in situ sol-gel synthesized inorganic borosilicate/silicate polymer scaffold matrix comprising ionic liquid*. Frontiers in Energy 04/2018; DOI:10.1007/s11708-018-0554-2
10. D Bauer, AJ Roberts, CL Starkey, R Vedarajan, DJL Brett, PR Shearing, N Matsumi, JA Darr:  *$\text{TiO}_2/\text{MoO}_2$  Nanocomposite as Anode Materials for High Power Li-ion Batteries with Exceptional Capacity*. International journal of electrochemical science 04/2018; 13(5).
11. Sudip Mandal, Raman Vedarajan, Noriyoshi Matsumi, Kothandaraman Ramanujam: *Computational Investigation of the Influence of  $\pi$ - Bridge Conjugation Order of Thiophene and Thiazole Units in Triphenylamine Based Dyes in Dye Sensitized Solar Cells*. ChemistrySelect 03/2018; 3(13)., DOI:10.1002/slct.201702882
12. Sai Gourang Patnaik, Raman Vedarajan, Noriyoshi Matsumi: *BIAN Based Electroactive Polymer with Defined Active Centers as Metal-Free Electrocatalysts for Oxygen Reduction Reaction (ORR) in Aqueous and Nonaqueous Media*. 03/2018;., DOI:10.1021/acsaem.7b00293
13. Jagadeeswari Sivanadanam, Ramesh Mukkamala, Sudip Mandal, Raman Vedarajan, Noriyoshi Matsumi, Indrapal Singh Aidhen, Kothandaraman Ramanujam: *Exploring the role of the spacers and*

- acceptors on the triphenylamine-based dyes for dye-sensitized solar cells.* International Journal of Hydrogen Energy 01/2018; 43(9)., DOI:10.1016/j.ijhydene.2017.10.183
14. Prerna Joshi, Katsuhito Iwai, Sai Gourang Patnaik, Raman Vedarajan, Noriyoshi Matsumi: *Reduction of Charge-Transfer Resistance via Artificial SEI Formation Using Electropolymerization of Borylated Thiophene Monomer on Graphite Anodes.* Journal of The Electrochemical Society 01/2018; 165(3):A493-A500., DOI:10.1149/2.0141803jes
  15. Raman Vedarajan, Naoki Tomida, NoriyoshiMatsumi: *Metal Free Composite Electrodes for Hydrogen Evolution Reaction.* Materials today: proceedings 12/2017; 4(4):5116-5121., DOI:10.1016/j.matpr.2017.05.016
  16. RajashekarBadam, Raman Vedarajan, NoriyoshiMatsumi: *3D-polythiophene foam on a TiO<sub>2</sub> nanotube array as a substrate for photogenerated Pt nanoparticles as an advanced catalyst for the oxygen reduction reaction.* Polymer Journal 12/2017;, DOI:10.1038/s41428-017-0005-7
  17. RajashekarBadam, Prerna Joshi, Raman Vedarajan, Rajalakshmi Natarajan, NoriyoshiMatsumi: *Few-Layered MoS<sub>2</sub>/Acetylene Black Composite as an Efficient Anode Material for Lithium-Ion Batteries.* Nanoscale Research Letters 10/2017; 12(1):555., DOI:10.1186/s11671-017-2322-3
  18. Sai Gourang Patnaik, Raman Vedarajan, NoriyoshiMatsumi: *BIAN based functional diimine polymer binder for high performance Li ion batteries.* Journal of Materials Chemistry A 08/2017; 5(5)., DOI:10.1039/C7TA03843G
  19. Pradeep Kumar Badiya, Sai Gourang Patnaik, Venkatesh Srinivasan, Narendra Reddy, Chelli Sai Manohar, Raman Vedarajan, NoriyoshiMatsumi, Siva Kumar Belliraj, Sai Sathish Ramamurthy: *Ag-Protein Plasmonic Architectures for Surface Plasmon-Coupled Emission Enhancements and Fabry-Perot Mode-Coupled Directional Fluorescence Emission.* Chemical Physics Letters 07/2017; 685., DOI:10.1016/j.cplett.2017.07.056
  20. Raman Vedarajan, Kento Matsui, Emari Tamaru, JyotiDhankhar, Toshihiro Takekawa, NoriyoshiMatsumi: *Ionic liquid/boric ester binary electrolytes with unusually high lithium transference number.* Electrochemistry Communications 06/2017; 81., DOI:10.1016/j.elecom.2017.06.019
  21. Ankit Singh, Raman Vedarajan, NoriyoshiMatsumi: *Modified Metal Organic Frameworks (MOFs)/Ionic Liquid Matrices for Efficient Charge Storage.* Journal of The Electrochemical Society 01/2017; 164(8):H5169-H5174., DOI:10.1149/2.0191708jes
  22. RajashekarBadam, Raman Vedarajan, KazukiOkaya, Koichi Matsutani, NoriyoshiMatsumi: *Sacrificial Reducing Agent Free Photo-Generation of Platinum Nano Particle over Carbon/TiO<sub>2</sub> for Highly Efficient Oxygen Reduction Reaction OPEN.* Scientific Reports 12/2016; 6(37006)., DOI:10.1038/srep37006
  23. PuhupPuneet, Raman Vedarajan, NoriyoshiMatsumi: *Alternating Poly(borosiloxane) for Solid State Ultrasensitivity Toward Fluoride Ions in Aqueous Media.* 09/2016; 1(10)., DOI:10.1021/acssensors.6b00346
  24. MaidhilyManikandan, Raman Vedarajan, Rajesh Kodiyath, Hideki Abe, Shigenori Ueda, ArivuoliDakshnamoorthy, Natarajan Rajalakshmi, Kaveripatnam S Dhathathreyan, Gubbala V Ramesh: *Pt Decorated Free-Standing TiO<sub>2</sub> Nanotube Arrays: Highly Active and Durable Electrocatalyst for Oxygen Reduction and Methanol Oxidation Reactions.* Journal of Nanoscience and Nanotechnology 08/2016; 16(8):8269-8278., DOI:10.1166/jnn.2016.11772
  25. PuhupPuneet, Raman Vedarajan, NoriyoshiMatsumi: *o-p Conjugated Copolymers via Dehydrocoupling Polymerization of Phenylsilane and Mesitylborane.* Polymer Chemistry 05/2016; 7(25)., DOI:10.1039/C6PY00205F

26. Kamiya Jain, Raman Vedarajan, Masaki Watanabe, Mamoru Ishikiriya, NoriyoshiMatsumi: *Tunable LCST behavior of poly(N-isopropylacrylamide/ionic liquid) copolymers*. *Polymer Chemistry* 10/2015; 6(38)., DOI:10.1039/C5PY00998G
27. Kumar Sai Smaran, Prerna Joshi, Raman Vedarajan, NoriyoshiMatsumi: *Optimisation of Potential Boundaries with Dynamic Electrochemical Impedance Spectroscopy for an Anodic Half-Cell Based on Organic-Inorganic Hybrid Electrolytes*. *ChemElectroChem* 10/2015; 2(12)., DOI:10.1002/celec.201500372
28. Toshiyasu Nishimura, Raman Vedarajan: *Epoxy polymer coating to prevent the corrosion of aluminum nanoparticles*. *Polymers for Advanced Technologies* 09/2015; 27(6):n/a-n/a., DOI:10.1002/pat.3694
29. Prerna Joshi, Raman Vedarajan, NoriyoshiMatsumi: *Crystalline Low Molecular Weight Cyclic Organoboron Compound for Efficient Solid State Lithium Ion Transport*. *Chemical Communications* 08/2015; 51(81)., DOI:10.1039/C5CC04753F
30. Rajashekar B, Raman Vedarajan, NoriyoshiMatsumi: *Platinum Decorated Functionalized Defective Acetylene Black; A Promising Cathode Material For Oxygen Reduction Reaction*. *Chemical Communications* 05/2015; 51(48)., DOI:10.1039/C5CC02235E
31. L Tiankhon, N H Hassan, M Y A Rahman, R Vedarajan, N Matsumi, A Ahmad: *One-pot synthesis nano-hybrid ZrO<sub>2</sub>-TiO<sub>2</sub> fillers in 49% poly(methyl methacrylate) grafted natural rubber (MG49) based nano-composite polymer electrolyte for lithium ion battery application*. *Solid State Ionics* 03/2015; 276., DOI:10.1016/j.ssi.2015.03.034
32. NoriyoshiMatsumi, Yoshiyuki Toyota, Prerna Joshi, PuhupPuneet, Raman Vedarajan, Toshihiro Takekawa: *Boric Ester-Type Molten Salt via Dehydrocoupling Reaction*. *International Journal of Molecular Sciences* 11/2014; 15(11):21080-9., DOI:10.3390/ijms151121080
33. Raman Vedarajan, Shoto Ikeda, NoriyoshiMatsumi: *Electrochemical characterization of TiO<sub>2</sub>/WO<sub>x</sub> nanotubes for photocatalytic application*. *Nanoscale Research Letters* 10/2014; 9(1):573., DOI:10.1186/1556-276X-9-573
34. Raman Vedarajan, Makoto Ogawa, NoriyoshiMatsumi: *Lithium ion conductive behavior of TiO<sub>2</sub> nanotube/ionic liquid matrices*. *Nanoscale Research Letters* 10/2014; 9(1):539., DOI:10.1186/1556-276X-9-539
35. Raman Vedarajan, Yasuhiro Hosono, NoriyoshiMatsumi: *Conjugated polycarbazole-boron complex as a colorimetric fluoride ion sensor*. *Solid State Ionics* 09/2014; 262:795-800., DOI:10.1016/j.ssi.2013.09.062
36. Toshiyasu Nishimura, Raman Vedarajan: *Corrosion Prevention of Aluminum Nanoparticles by a Polyurethane Coating*. *Materials* 06/2014; 7(6):4710-4722., DOI:10.3390/ma7064710
37. Kumar Sai Smaran, Raman Vedarajan, NoriyoshiMatsumi: *Design of organic-inorganic hybrid ion-gel electrolytes composed of borosilicate and allylimidazolium type ionic liquids*. *International Journal of Hydrogen Energy* 02/2014; 39(6):2936-2942., DOI:10.1016/j.ijhydene.2013.05.124
38. MohanaMarimuthu, MuruganVeerapandian, SubramaniamRamasundaram, Seok Won Hong, P. Sudhagar, Srinivasan Nagarajan, Raman Vedarajan, Eisuke Ito, Sanghyo Kim, Kyusik Yun, Yong Soo Kang: *Sodium functionalized graphene oxide coated titanium plates for improved corrosion resistance and cell viability*. *Applied Surface Science* 02/2014; 293:124-131., DOI:10.1016/j.apsusc.2013.12.114
39. S. Nagarajan, P. Sudhagar, Raman Vedarajan, Woohyung Cho, K. S. Dhathathreyan, Yong Soo Kang: *A PEDOT-reinforced exfoliated graphite composite as a Pt- and TCO-free flexible counter electrode for polymer electrolyte dye-sensitized solar cells*. *Solar Energy* 01/2013; 87(4):1048-1054., DOI:10.1039/c2ta00091a



40. Srinivasan Nagarajan, Marimuthu Mohana, Pitchaimuthu Sudhagar, Raman Vedarajan, Toshiyasu Nishimura, Sanghyo Kim, Yong Soo Kang, Nallaiyan Rajendran: *Nanocomposite Coatings on Biomedical Grade Stainless Steel for Improved Corrosion Resistance and Biocompatibility*. ACS Applied Materials & Interfaces 09/2012; 4(10):5134-41., DOI:10.1021/am301559r
41. B. P. Vinayan, Rupali Nagar, Raman Vedarajan, N. Rajalakshmi, K. S. Dhathathreyan, S. Ramaprabhu: *Synthesis of graphene-multiwalled carbon nanotubes hybrid nanostructure by strengthened electrostatic interaction and its lithium ion battery application*. Journal of Materials Chemistry 04/2012; 22(19):9949-9956., DOI:10.1039/C2JM16294F
42. BP Vinayan, Rupali Nagar, Raman Vedarajan, N. Rajalakshmi, KS Dhathathreyan, S Ramaprabhu: *Synthesis of graphene-multiwalled carbon nanotubes hybrid nanostructure by strengthened electrostatic interaction and its lithium ion battery application*. Journal of Materials Chemistry 01/2012;
43. S Tamilselvi, Raman Vedarajan, N Rajendran: *Surface modification of titanium by chemical and thermal methods - Electrochemical impedance spectroscopic studies*. Corrosion Engineering Science and Technology 06/2011; 46(4):585-591., DOI:10.1179/147842209X12590591256936
44. G. Mohan Kumar, Raman Vedarajan, Jin Kawakita, P Ilanchezhian, R Jayavel: *Fabrication of polypyrrole/ZnCoO nanohybrid systems for solar cell applications*. Dalton Transactions 09/2010; 39(35):8325-30., DOI:10.1039/c0dt00167h
45. Raman Vedarajan, Toshiyasu Nishimura: *Corrosion analysis and monitoring of the environmental factors for the deterioration of chromium-bearing reinforcing steel in mortar*. Journal of Solid State Electrochemistry 08/2010; 14(8):1457-1464., DOI:10.1007/s10008-009-0949-4
46. S. Nagarajan, Raman Vedarajan, N. Rajendran: *Evaluation of passive film behaviour of super austenitic stainless steels at different potential regions using dynamic electrochemical impedance spectroscopy*. Journal of Solid State Electrochemistry 07/2010; 14(7):1197-1204., DOI:10.1007/s10008-009-0948-5
47. Seshachalam Udayakumar, Hye-Lim Shim, Raman Vedarajan, Dae-Won Park: *The complete optimization of ionic liquid-functionalized porous amorphous silica under one-pot synthesis conditions*. Microporous and Mesoporous Materials 04/2010; 129(1-2-129):149-155., DOI:10.1016/j.micromeso.2009.09.010
48. Toshiyasu Nishimura, Raman Vedarajan: *Corrosion behavior of reinforcing steel in concrete for nuclear facilities exposed in high chloride and low pH environment*. Journal of Nuclear Materials 02/2010; 397(1):101-108., DOI:10.1016/j.jnucmat.2009.12.015
49. S. Tamilselvi, Raman Vedarajan, N. Rajendran: *Evaluation of corrosion behavior of surface modified Ti-6Al-4V ELI alloy in Hank's solution*. Journal of Applied Electrochemistry 02/2010; 40(2):285-293., DOI:10.1007/s10800-009-9972-5
50. S. Nagarajan, Raman Vedarajan, N. Rajendran: *Synthesis and electrochemical characterization of porous niobium oxide coated 316L SS for orthopedic applications*. Materials Chemistry and Physics 02/2010; 119(3-119):363-366., DOI:10.1016/j.matchemphys.2009.10.033
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53. Raman Vedarajan, Toshiyasu Nishimura: *Monitoring of Environmental Factors and Corrosion Analysis of Reinforcing Steel in Mortar*. Materials transactions 04/2009; 50(4):799-805., DOI:10.2320/matertrans.MRA2008355
54. S. Tamilselvi, Raman Vedarajan, N. Rajendran: *Corrosion behavior of titanium alloys in Hanks solution*. 01/2009; 34(3):579-583., DOI:10.14723/tmrsj.34.579
55. Raman Vedarajan, T. Nishimura: *Microstructure of the Rust Formed on SiAl Bearing Ultrafine-Grained Weathering Steel*. DOI:10.1007/978-1-84882-454-6\_27
56. Raman Vedarajan, S. Tamilselvi, N. Rajendran: *Evaluation of effective biocides for SRB to control microbiologically influenced corrosion*. Materials and Corrosion 04/2008; 59(4):329 - 334., DOI:10.1002/maco.200804103
57. A.P. Srikanth, Raman Vedarajan, S. Tamilselvi, S. Nanjundan, N. Rajendran: *Electropolymerization and corrosion protection of polyaniline and its copolymer on carbon steel*. Anti-Corrosion Methods and Materials 01/2008; 55(1):3-9., DOI:10.1108/00035590810842762
58. M Karthega, Raman Vedarajan, NRajendran: *Influence of potential on the electrochemical behaviour of  $\beta$  titanium alloys in Hank's solution*. ActaBiomaterialia 12/2007; 3(6):1019-23., DOI:10.1016/j.actbio.2007.02.009
59. Raman Vedarajan, S. Tamilselvi, N. Rajendran: *Electrochemical Impedance Spectroscopic Characterization of Titanium During Alkali Treatment and Apatite Growth in Simulated Body Fluid*. ElectrochimicaActa 09/2007; 52(26):7418-7424., DOI:10.1016/j.electacta.2007.06.040
60. P. Srikanth, T.G. Sunitha, Raman Vedarajan, S. Nanjundan, N. Rajendran: *Synthesis, characterization and corrosion protection properties of poly(N-(acryloyloxymethyl) benzotriazole-co-glycidyl methacrylate) coatings on mild steel*. Materials Chemistry and Physics 06/2007; 103(2):241-247., DOI:10.1016/j.matchemphys.2007.02.021
61. S. Tamilselvi, Raman Vedarajan, N. Rajendran: *Corrosion behaviour of Ti-6Al-7Nb and Ti-6Al-4V ELI alloys in the simulated body fluid solution by electrochemical impedance spectroscopy*. ElectrochimicaActa 11/2006; 52(3):839-846., DOI:10.1016/j.electacta.2006.06.018
62. Raman Vedarajan, S. Nagarajan, N. Rajendran: *Electrochemical impedance spectroscopic characterisation of passive film formed over  $\beta$  Ti-29Nb-13Ta-4.6Zr alloy*. Electrochemistry Communications 08/2006; 8(8):1309-1314., DOI:10.1016/j.elecom.2006.06.004
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65. S. Gokul Lakshmi, Raman Vedarajan, N. Rajendran, M.A.K. Babi, D. Arivuoli: *In vitro corrosion behaviour of plasma nitrided Ti-6Al-7Nb orthopaedic alloy in Hanks solution*. Science and Technology of Advanced Materials 09/2003; 4(5):415-418., DOI:10.1016/j.stam.2003.09.005