

## Dr. R. ELANSEZHIAN

Professor and Placement Officer

Affiliation: Department of Mechanical Engineering,

Pondicherry Engineering College

Upgraded to Puducherry Technological University,

(Government of Puducherry) Pondicherry - 605014, India. Tel: +91 413 2655281 Ext 268

M.P: +**91 9952884402** Fax: +**91** 413 2655101

E-Mail: <u>elansezhianr@pec.edu</u> elansezhianr@gmail.com



## • INTERNATIONAL REFREED JOURNALS:

- 1. **Elansezhian, R**., B. Ramamoorthy, and P. Kesavan Nair (2008) "Effect of surfactants on the mechanical properties of electroless (Ni P) coatings", Journal of Surface and Coatings Technology, **Elsevier**, 203 (5-7) 709 712 (**Impact Factor 3.372**). ISSN: 0257-8972
- 2. **Elansezhian, R**., B. Ramamoorthy, and P. Kesavan Nair (2009) "The influence of sodium dodecyl sulfate (SDS) and cetyl trimethyl ammonium bromide (CTAB) surfactants on the surface morphology and surface topography of electroless (Ni P) deposits", Journal of Materials Processing Technology, **Elsevier**, 209 (1) 233-240 (**Impact Factor 2.894**). ISSN: 0924-0136.
- 3. Elansezhian, R., B. Ramamoorthy, and P. Kesavan Nair (2008) "Effect of surfactants on the surface roughness, microhardness and microstructure of electroless (Ni P) coatings", International Journal of Surface Science and Engineering, Inderscience, 2 (3- 4) 179 189 (Impact Factor 0.752). ISSN 1749-7868.
- 4. **Elansezhian, R**., B. Ramamoorthy, and P. Kesavan Nair (2010), "The influence of surfactants on the tribological behaviour of electroless (Ni P) deposits", Intl. Journal of Surface Science and Engineering, **Inderscience**, 4 (3) 258 268, 2010 (**Impact Factor 0.752**). ISSN 1749-7868
- 5. R. Rajendiran, Wei Sha and **R. Elansezhian** (2010), "Abrasive wear resistance of electroless Ni-P coated aluminium after post treatment", Journal of Surface and Coatings Technology, Elsevier, 205 (3), 766-772, 2010, ISSN: 0257-8972, (Impact Factor 3.372).
- 6. J. Sudagar, J. S. Lian and **R. Elansezhian** (2012), "The Performance of surfactant on the surface characteristics of electroless Ni-P on magnesium alloy", Progress in Organic Coatings, **Elsevier**, 74 (4), 788–793, 2012, ISSN: 0300-9440 (Impact Factor 2.903)
- 7. R. Elansezhian, and L. Saravanan (2011), "Effect of nano silica fillers on mechanical and abrasive wear behaviour of vinyl ester resin", International Journal of Applied Research in Mechanical Engineering, Vol 1, Issue-1, 105 108, 2011. ISSN: 2231 –5950
- 8. R. Elansezhian, B. Ramamoorthy, and P. Kesavan Nair (2011), "Influence of SDS and CTAB Surfactants on the Corrosion Behaviour of Electroless Ni P Coatings", Journal of Metals,



- Special Issue on Surface Modification Technologies, **Springer**. (**Impact Factor 1.860**) ISSN: 1047-4838
- 9. R. Elansezhian, B. Ramamoorthy, and P. Kesavan Nair (2012), "Study on characterization and influence of surfactants on adhesion and coating thickness of electroless Ni-P deposits", International Journal of Microstructure and Materials Properties, **Inderscience** (**Impact Factor: 0.256**) Vol. 7, No. 1, 77 93, 2012. ISSN online: 1741-8429
- Dr. R. Elansezhian and D. Senthilkumar (2012), "Experimental study on Al<sub>2</sub>O<sub>3</sub> R134a nano refrigerant in refrigeration system, International Journal of Modern Engineering Research, Volume -2, Issue - 5, 3927-3930, 2012. ISSN: 2249-6645
- 11. Dr. R. Elansezhian and D. Senthilkumar (2012), "Investigation of R152a/R134a Mixture in Refrigeration System", International Journal of Engineering and Innovative Technology (IJEIT), Volume -2, Issue 6, 201 210, 2012. ISSN:2277-3754
- 12. J Sudagar, R Dewen, Y Liang, R Elansezhian, J Lian (2012), Influence of Surfactants on the Corrosion Properties of Chromium-Free Electroless Nickel Deposit on Magnesium Alloy, Surface Review and Letters, Volume 19, Issue 03, 1250025-34, 2012. ISSN:1793-6667
- 13. R.Muraliraja, H.Vettrivel and Dr. R. Elansezhian (2013), Synthesis and Characterization of Magnesium Alloy added with Yttrium and To Study the Microstructure and Mechanical Properties, International Journal of Engineering and Innovative Technology (IJEIT) Volume 2, Issue 7, 388- 392, January 2013 ISSN: 2277-3754
- 14. M. Jeevarani, Dr. R. Elansezhian, and N. Karpagavalli (2013), "Study on the Effect of Process Parameters in the Electroless Copper Coating On Solar Photovoltaic Cell", International Journal of Engineering and Innovative Technology, Volume 2, Issue 7, 164-168. ISSN: 2277-3754
- 15. Ruan de-wen, Sudagar Jothi, Liang Ya-qin, Elansezhian Rasu, Lian Jian-she (2013), "Effects of surfactants on corrosion behavior of chromium-free electroless nickel deposit on magnesium alloy" Journal of Jilin University (Engineering Science) Volume 43, Issue 02, 363-367, 2013, ISSN: 1671-5497.
- 16. R. Dinakaran, Dr. R. Elansezhian and A. Arumugam (2013), "Influence of surfactant on the structural characteristics and surface finish of electroless nickel coating on magnesium based composites reinforced with MWCNT", International Journal of Emerging Technology and Advanced Engineering, Volume 3, Issue 2, 254 261 ISSN 2250–2459
- 17. R. Dinakaran, Dr. R. Elansezhian and A. Arumugam (2013), Effect of nano additives with surfactant on the surface characteristics of electroless nickel coating on magnesium based composites reinforced with MWCNT", Advances in Tribology, Volume 2013, Article ID 315965, pp.1-10, 2013, ISSN: 1687-5915
- 18. Jeevarani Manivannan and R. Elansezhian (2014), "Comparative study on the effects of surfactants on the electroless copper coated solar cell and optimizing its process parameters," Advances in Chemistry, Volume 2014, pp 1 -14. ISSN: 1687-7985
- 19. K. Ramadoss and R. Elansezhian (2014), Study on the Influence of Nanoadditives on Surface roughness of newly synthesized Magnesium Alloy during Turning operation, International Journal of ChemTech Research, Vol.6, No.3, pp 1739-1742, May-June 2014. ISSN: 2455-9555



- 20. M. Vijayanand and R. Elansezhian (2014), Study on influence of zwitterionic surfactant on the surface finish and surface morphology of electroless Ni-B coatings on Al 7075-T6 alloy, Advanced Materials Research, Volumes 984-985, Pages 476-481, 2014 ISSN: 1662-8985
- 21. R. Muraliraja and R. Elansezhian (2014), Optimization of Reducing Agent and Key Parameters Effect on The Efficiency of Electroless Ni-P plating by Taguchi method, Procedia Materials Science (**Elsevier**), Volume 5 Issue 2014 pp. 2478 2486. ISSN: 2211-8128
- 22. D. Sendil Kumar and R. Elansezhian (2014), ZnO nanorefrigerant in R152a refrigeration system for energy conservation and green environment, Frontiers of Mechanical Engineering Springer, Volume 9, Issue 1, pp 75–80, ISSN: 2095-0233 (Print) 2095-0241 (Online).
- 23. R. Muraliraja and R. Elansezhian (2014), Effect of zwitterionic surfactant on tribological behaviour of electroless plating, Surface Engineering, **Taylor & Francis**, Volume 30, Issue 10, pp. 752-757 (**Impact Factor 1.545**). ISSN: 0267-0844
- Elansezhian Rasu (2014), Study on Synthesis of Nanopolymer Composite with Electroless Coated Reinforcement, American Chemical Science Journal, Volume 4, Issue 6, pp. 983 - 991. ISSN: 2249-0205
- 25. S. Vandaarkuzhali and Dr. R. Elansezhian (2014), Investigation On R152a As A Substitute For R22 In Commercial Air Conditioning System A Review, Singaporean Journals of Scientific Research, Special Issue on: Journal of Selected Areas in Mechatronics, Vol.6, No.6, pp. 260 275 (Impact Factor 1.02). ISSN: 1925-2676
- 26. Elansezhian Rasu (2014), Study on structural characterization of surfactants influence on electroless Ni-P deposits, British Journal of Applied Science and Technology, Volume 5, Issue 3, PP. 1-10. ISSN: 2231-0843
- 27. S. Vandaarkuzhali and Dr. R. Elansezhian (2014), Experimental Investigation of R152a/R22 mixture in an Air Conditioning System, International Journal of Science and Research, Volume 3, Issue 12, December 2014, pp. 1328 1331. ISSN: 2319-7064
- 28. M. Jeevarani and R. Elansezhian (2014), Texturing of Solar Cell Using Electroless Copper Coating To Increase The Green Energy Consumption, International Journal of Green Energy IJGE 2014-0031. ISSN: 1543-5083
- 29. K. Mohan, Dr. R. Elansezhian, Mr. R. Dhinakaran (2014), Modeling and Simulation of Solar PV Cell with MATLAB/Simulink and its Experimental Verification, International Journal of Advanced Research Trends in Engineering and Technology, Dec. 2014, pp. 21-26. ISSN 2394-3785
- 30. M. Jeevarani and R. Elansezhian (2014), Optimizing The Process Parameters In Spin Coating of Sol-Gel TiO<sub>2</sub> on Copper Textured Solar Cells Using Full Factorial Method, Journal of Sol-Gel Science and Technology, Vol. 72, Issue 3, ISSN: 0928-0707, Impact Factor: 1.91
- 31. M. Jeevarani and R. Elansezhian (2015), Development of self cleaning and energy efficient solar cells using two different coating techniques, International Journal of Computer Aided Engineering and Technology, Vol. 7, No. 1, pp. 47 59. ISSN: 1757-2665
- 33. S. Vandaarkuzhali, and Dr. R. Elansezhian (2015), Performance Evaluation of Air Conditioning



- System Using Nanofluids, Australian Journal of Basic & Applied Sciences, 9(7): 1-10, April 2015, ISSN: 1991-8178
- 34. R. Muraliraja, Dr. R. Elansezhian (2015), Prediction and Supplementation of Reducing Agent to Improve the Coating Efficiency and Wear Behavior of Electroless Ni-P Plating, International Journal of Electrochemical Science (Impact factor: 1.469), 10, 5536 5547. ISSN: 1452-3981
- 35. R. Muraliraja, Dr. R. Elansezhian (2015), Influence of nickel recovery efficiency on crystallinity and microhardness of electroless Ni–P coatings and optimisation using Taguchi technique, Transactions of the Institute of Metal Finishing, Vol 93 No 3, 126 132, ISSN: 0020-2967
- 36. Muhammad Mumtaz Mirza, Elansezhian Rasu and Anjali Desilva (2015), Corrosion protection of steel pipe lines used in oil and gas industry of Oman, British Journal of Applied Science & Technology, 11(6), pp.1-18. ISSN: 2231-0843
- 37. Muhammad Mumtaz Mirza, Elansezhian Rasu and Anjali Desilva (2016), Influence of Nano Additives on Protective Coatings for Oil Pipe Lines of Oman, International Journal of Chemical Engineering and Applications, Vol. 7, No. 4, pp.221-225. ISSN: 2010-0221
- 38. Muhammad Mumtaz Mirza, Elansezhian Rasu and Anjali Desilva (2016), Surface Coatings on Steel Pipes Used in Oil and Gas Industries A Review, American Chemical Science Journal, Vol. 13, Issue 1, pp. 1-23. ISSN No. 2249-0205
- 39. Elansezhian Rasu and Salim Abdullah Khamis Al Senaidi, 2016. Investigation on erosion-corrosion behaviour of gate valve used in main water distribution line of Oman. International Journal of Modern Science and Technology, Vol. 01 (01), PP. 12-16. ISSN 2456-0235
- 40. R. Muraliraja, R. Elansezhian, J. Sudagar, and A. V. Raviprakash, (2016) Influence of a Zwitterionic Surfactant on the Surface Properties of Electroless Ni–P Coating on Mild Steel, Journal of Surfactants and Detergents, September 2016, Volume 19, Issue 5, pp 1081-1088, ISSN 1097-3958. (Impact Factor 1.84), Springer,
- 41. M. Vijayanand and R. Elansezhian (2016) Influence of Surfactants on the properties of Electroless nickel boron (Thallium and Lead free) coatings. Journal of Process Mechanical Engineering SAGE Publishers (Impact Factor: 1.448), Vol. 230, Issue 4, ISSN: 0954 4089
- 42. Juhaina Saleh Fadhil Al-Fori, Parimal Sharad Bhambare and Elansezhian Rasu (2016), Investigations on microbiologically influenced corrosion, International Journal of Modern Science and Technology Vol. 1, Issue 3, June 2016. Page 97-101. ISSN: 2456-0235
- 43. Juhaina Jasim Mohamed Al-Farsi, Dinesh Keloth, Elansezhian Rasu (2016), Synthesis of Activated Carbon using Orange and Lemon Peel for Wastewater Treatment Application, International Journal of Modern Science and Technology Vol. 1, No. 5, Aug. 2016. Page 178-182. ISSN: 2456-0235
- 44. M. Vijayanand and R. Elansezhian (2016), Effect of surfactants on the surface characteristics of Electroless Ni-B coatings on Al 7075-T6 alloy. Surface Engineering Vol 33 (1) 2016, ISSN: 0267-0844. **Impact Factor. 2.433**
- 45. Vijayalakshmi P; Arokiasamy A; Elansezhian R (2016), Effect of Surfactant and tool material



- on the Surface Roughness of Al 6061 in Turning Operation, Asian journal of research in social sciences and humanities, Vol. 6, Issue 11, Page 1264 1274, ISSN: 2249-7315.
- 46. Gunabalan, S. and Elansezhian, R., (2016), A Molecular Orbital Approach to Develop Alloying Framework for Aluminium—A Review, Reviews in Advanced Sciences and Engineering, Volume 5, Number 2, pp. 161-173 American Scientific Publishers ISSN 2157-9121.
- 47. R. Anburaj and R. Elansezhian (2016), Investigations on influence of nano cutting fluid in machining of Inconel 718, Asia Pacific Journal of Research, Vol.1, Issue 18, 154 160. ISSN 2320-5504
- 48. Lakshmanan Pillai.A, Jinu.G.R, and Elansezhian.R, (2016) Evaluation of Mechanical Properties of Magnesium Reinforced with Titanium Oxide Composites, International Journal of Engineering Trends and Technology (IJETT) Volume-42 Number-8 December 2016, ISSN: 2349-0918
- 49. G. Anand, N. Alagumurthi, R. Elansezhian, and N. Venkateshwaran (2017), Ni-P Coated Glass Fiber/Al2O3 Nanowire Reinforced Vinyl Ester Composite: Investigation on the Mechanical and Thermal Properties, Polymer Korea, Vol.41, No.3, 443-451, May, 2017, ISSN: 2234-8077
- 50. Vijayalakshmi P; Arokiasamy A; Elansezhian R (2017), Effect of Surfactant on the Surface Roughness of Al 6061 in Turning Operation, **Springer** -Academy Proceedings in Engineering Science.
- 51. G. Anand, N. Alagumurthi, R. Elansezhian, and N. Venkateshwaran (2017), Dynamic mechanical, thermal and wear analysis of Ni-P coated glass fiber/Al<sub>2</sub> O<sub>3</sub> nanowire reinforced vinyl ester composite, Alexandria Engineering Journal (**Elsevier**) **Impact Factor 2.33**, Volume 57, Issue 2, June 2018, Pages 621-631, ISSN: 1110-0168
- 52. Mumtaz Mirza M, Elansezhian Rasu and Anjali Desilva (2017), Thermal Analysis of Oil Pipeline Coatings, Journal of Research & Development in Material Science, Vol. 1, Issue 4, 1-9. ISSN: 2576-8840
- 53. Gunabalan, S. and Elansezhian, R., (2017), Dry sliding wear behaviour of gravity die casting al-Si-Mg alloys, Asia Pacific journal of Research, Vol.1, Issue LVII, 78-85, November 2017 ISSN: 19761961
- 54. Mumtaz Mirza M, Elansezhian Rasu and Anjali Desilva (2018), Impact of nano additives on electroless nickel phosphorous (EN-P) coating, International Journal of Automotive and Mechanical Engineering, ISSN: 2229-8649 (Print); Volume 14, Issue 4 pp. 4863-4879.
- 55. Gunabalan, S. and Elansezhian, R., (2018), Development and testing of low cost furnace solutions for small scale foundry, International Journal of Emerging Technology and Advanced Engineering, Vol. 8, Issue 2, 61-65, ISSN 2250–2459
- 56. G. Anand, N. Alagumurthi, and R. Elansezhain, (2018), Influence of drilling process parameters on hybrid vinyl ester composite, Journal of Materials and Manufacturing Processes, Vol. 33, Issue 12, 1299-1305, Taylor & Francis, (Impact Factor 2.274) ISSN: 10426914
- 57. G. Anand, N. Alagumurthi, and R. Elansezhian (2018), Investigation of Drilling Parameters on Hybrid Polymer Composites by using Grey Relational Analysis, Regression, Fuzzy Logic and ANN Models, Journal of the Brazilian Society of Mechanical Sciences and Engineering,



- 58. R. Muraliraja, R. Elansezhian, J. Sudagar and A. V. Raviprakash (2018), Estimation of zwitterionic surfactant response in electroless composite coating and properties of Ni-P-CUO (nano) coating, Arabian Journal for Science and Engineering, Volume 44, pages 821–828 (2019) Springer (Impact Factor: 0.865). ISSN: 1319-8025
- 59. R. Muraliraja, R. Elansezhian, T. Vinod Kumar, M. Chandrasekaran (2018), Study on improving nickel recovery efficiency of electroless nickel coating process, International Journal of Management, Technology And Engineering Volume 8, Issue XII, December/2018 ISSN NO: 2249-7455 Page No: 4495 -4501.
- 60. R. Dhinakaran, R. Elansezhian, R. Muraliraja, R. Sridhar (2018), Experimental investigation on textured solar PV cells coated with nano Al<sub>2</sub>O<sub>3</sub>and nano ZnO, International Journal of Management, Technology And Engineering Volume 8, Issue XII, December/2018 Page No: 4552 4561. ISSN NO: 2249-7455
- 61. Natarajan Purushothaman, R Elansezhian, AV Raviprakash (2019), Optimization of process parameters of thin film deposition in solar PV cells using magnetron sputtering process, AIP Conference Proceedings, 2162 (1), 020124 6.
- 62. Natarajan Purushothaman, R Elansezhian, AV Raviprakash (2019), Effect of RF/DC Magnetron Sputtering Process Parameters for Improving Efficiency of Solar PV Cell, IOP Conference Series: Earth and Environmental Science, 312 (1), 012011. ISSN: 17551315
- 63. J. Gayathri and R. Elansezhian (2019), Synthesis of novel aluminium metal matrix composite using industrial metallic waste: Impact on wear and corrosion behaviour, AIP Conference Proceedings, **2162**, 20026 7. ISSN: 0094-243X
- 64. J. Gayathri and R. Elansezhian (2020), Reuse of petroleum industrial waste as reinforcement in aluminium matrix for enhancement of mechanical properties, Materials Today: Proceedings, Volume 27, Part 3, 2020, Pages 2546-2550 Elsevier Impact Factor 0.97. ISSN: 2214-7853
- 65. J. Gayathri and R. Elansezhian (2020), Enhancement of Mechanical Properties of Aluminium Metal Matrix Composite by Reinforcing Waste Alumina Catalyst and Nano Al<sub>2</sub>O<sub>3</sub>, Materials Today: Proceedings, February 2020 **Elsevier Impact Factor 0.97** ISSN: 2214-7853
- 66. J. Gayathri and R. Elansezhian (2020), Influence of Dual Reinforcement (nano CuO+Reused Spent Alumina Catalyst) on Microstructure and mechanical properties of aluminium metal matrix composite, Journal of Alloys and Compounds; Vol. 829, p. 154538, July 2020 Elsevier Impact Factor 4.175 ISSN: 0925-8388
- 67. Natarajan Purushothaman, R. Elansezhian, AV. Raviprakash (2020), Development of Nano Textured Solar PV Cell for Photovoltaic and Self Cleaning Applications Using Different Coating Technique, International Journal of Advanced Science and Technology, Vol. 29, No. 9, March 2020. ISSN: 22076360 Impact Factor 0.41
- 68. R Dhinakaran, R Muraliraja, **R Elansezhian**, S Baskar (2020), Utilization of solar resource using phase change material assisted solar water heater and the influence of nano filler, Materials Today: Proceedings, July 2020, **Elsevier. ISSN**: 2214-7853
- 69. Mahesh and Elansezhian, R., (2020), Synthesis and Novel development of electroless Ni-P



- coating on Bamboo fibre, Materials Today: Proceedings, September 2020, Elsevier. ISSN: 2214-7853
- 70. Pragathi, P. and Elansezhian, R. (2020), Wear and corrosion behaviour on pure aluminium matrix reinforced with SiC and Spent catalyst by using the stir casting method, Materials Today: Proceedings, October 2020, **Elsevier. ISSN**: 2214-7853
- 71. Krishnakumar, V and R Elansezhian (2020), Wear and corrosion behavior of electroless Ni-P-TiO2- Al2O3 nanocomposite coatings on magnesium AZ91D alloy: Materials Science and Engineering, Volume 912, Issue Materials, IOP Science
- 72. Krishnakumar, V and R Elansezhian (2020), Effect of heat treatment on wear and corrosion behavior of electroless Ni-P- TiO<sub>2</sub>- Al2O<sub>3</sub> nanocomposite coatings on magnesium AZ91D alloy, Lecture Notes in Mechanical Engineering- Springer