

Publications (SCI)

1. S. K. Mohapatra, **H.S. Maharana**, K Annapurna, Nd³⁺-doped mixed alkaline-earth zinc silico-aluminate glass: Insights on its 1069 nm spectral performance parameters, *Journal of Luminescence* 273 (2024) 120669.
2. S. K. Mohapatra, **H.S. Maharana**, Sultan Khan, Subrata Das, K. Annapurna, “Novel Eu³⁺ doped mixed alkaline-earth zinc silico-aluminate glass for white-light-emitting diode, fingerprint, and security ink application”, *Optical Materials*, 149 (2024)115051.
3. S. K. Mohapatra, **H.S. Maharana**, Sultan Khan, Saswata Chakraborty, K. Annapurna, “Ho³⁺-activated calcium zinc silico-aluminate glass for 2 μ m and 533 nm laser application”, *Materials Today Communications*, 37 (2023) 107477.
4. H Kancharla, **HS Maharana**, GK Mandal, SS Singh, K Mondal, Structure-dependent corrosion behavior of electrodeposited Zn coating, *Journal of Materials Engineering and Performance* 32 (7) (2023) 2993-3006.
5. **H.S. Maharana***, K. Mondal, Manifestation of Hall–Petch breakdown in nanocrystalline electrodeposited Ni-MoS₂ coating and its structure dependent wear resistance behavior, *Surface and Coatings Technology* 410 (2021) 126950.
6. Bharath Kumar Yadlapalli, **H.S. Maharana**, A Basu, Structure and properties of pulse electrodeposited Cr-WC coating, *Surface Topography: Metrology and Properties* 8 (2020) 025023.
7. E. Saraswat, **H.S. Maharana**, S.V.S. Narayana Murty, S. Shekhar, K. K. Kar, J. Ramkumar, K. Mondal, Fabrication of Al-Si controlled expansion alloys by unique combination of pressureless sintering and hot forging, *Advanced Powder Technology* 31 (2020) 2820-2832.
8. AP Chakraverty, Sambhabana Dash, **H.S. Maharana**, S Beura, UK Mohanty, A novel investigation on durability of GRE composite pipe for prolonged sea water transportation, *Composites Communications* 17 (2020) 42-50.
9. **H. S. Maharana**, SVS Narayana Murty, J Ramkumar, K Mondal, “Continuous and ordered surface microtexturing on Cu- and Ni-based alloys by novel electrochemical dissolution” *Journal of Alloys and Compounds* 817 (2020) 153263.

10. **H. S. Maharana***, A. Basu, K. Mondal, Effect of CTAB on the architecture and hydrophobicity of electrodeposited Cu–ZrO₂ nano-cone arrays, *Surface and Coatings Technology* 375 (2019) 323-333.
11. **H. S. Maharana***, Prvan Katiyar, K. Mondal, Structure dependent super-hydrophobic and corrosion resistant behavior of electrodeposited Ni-MoSe₂-MWCNT coating, *Applied Surface Science* 478 (2019) 26-37.
12. **H. S. Maharana**, B. Bishoyi, A. Basu, Current density dependent microstructure and texture evolution and related effects on properties of electrodeposited Ni-Al coating, *Journal of Alloys and Compounds* 787 (2019) 483-494.
13. **H. S. Maharana**, Ravi Kumar, SVS Narayana Murty, J Ramkumar, K Mondal, “Surface micro-texturing of dual phase steel and copper by combining laser machining and electrochemical dissolution” *Journal of Materials Processing Technology* 273 (2019) 116260.
14. P. Murkute, Ravi Kumar, S. Choudhary, **H. S. Maharana**, J. Ramkumar, K. Mondal, Comparative atmospheric corrosion behavior of mild steel and interstitial free steel, *Journal of Materials Engineering and Performance* 27 (2018) 4497-4506.
15. **H. S. Maharana**, B. Bishoyi, S. Panda and A. Basu, Electron backscattered diffraction study of pulse electrodeposited Cu-Y₂O₃ composite coating, *Journal of Materials Engineering and Performance* 27 (2018) 3488-3497.
16. **H S Maharana***, A Basu, K Mondal, Structural and tribological correlation of electrodeposited solid lubricating Ni-WSe₂ composite coating, *Surface and Coatings Technology* 349 (2018) 328-339.
17. **H S Maharana***, S Jena, A Basu, K Mondal, High temperature oxidation resistance of electrodeposited reduced graphene oxide (RGO) reinforced copper coatings, *Surface and Coatings Technology* 345 (2018) 140-151. (Placed in Graphene Research as a valuable research article in 2018)
18. **H. S. Maharana**, A. Basu, Effects of different surfactants on structural, tribological and electrical property of pulsed electro-codeposited Cu-ZrO₂ composite coatings, *Journal of Materials Engineering and Performance*, 27 (2018) 1854-1865.

19. **H. S. Maharana**, S. Bhatnagar, A. Basu, Structure Property correlation of Cu-Al-V₂O₅ coatings obtained from Al-V₂O₅ dispersed electrolyte, *Surface and Coatings Technology* 339 (2018) 111-123.
20. **H. S. Maharana**, S. Panda and A. Basu, Effect of texture and microstructure on properties of electrodeposited Cu-SiO₂ and Cu-Y₂O₃ coatings, *Surface and Coatings Technology* 315 (2017) 558-566.
21. **H. S. Maharana** and A. Basu, Evolution and structure property correlation of CTAB assisted high hardness electrodeposited Cu-ZrO₂ nano-cone arrays, *Surface and Coatings Technology* 310 (2017) 148-156.
22. **H. S. Maharana**, P. K. Rai and A. Basu, Surface-mechanical and electrical properties of pulse electrodeposited Cu-graphene oxide composite coating for electrical contacts, *Journal of Materials Science* 52 (2017) 1089-1105.
23. **H.S. Maharana**, A. Basu, Surface-mechanical and oxidation behavior of electro-codeposited Cu-Y₂O₃ composite coating, *Surface and Coatings Technology* 304 (2016) 348-358.
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26. **H. S. Maharana**, A. Ashok, S. Pal, and A. Basu, Surface-Mechanical Properties of Electrodeposited Cu-Al₂O₃ Composite Coating and Effects of Processing Parameters, *Metallurgical and Materials Transactions A*, 47A (2016) 388-399.
27. **H.S. Maharana**, S. Yadav, A.P. Chakraverty, G.D. Verma, Effect of Mn doping on microstructural and optical behavior of Zn(1-x)MnxO nanorod by simple autocombustion method, *Superlattices and Microstructures*, 81 (2015) 142-150.
28. A. Ashok, **H. S. Maharana** and A Basu, Effect of electro-co-deposition parameters on surface mechanical properties of Cu-TiO₂ composite coating, *Bulletin of Material Science*, 38 (2015) 335-342.