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List of Publications for last 5 years

1. T. Ponmudi Selvan, T.S. Shyju, A. M. Kamalan Kirubaharan, Deepa Devapal and P. Kuppusami, Thermal Expansion Behavior of Inconel-690 by In-situ High Temperature X-Ray Diffraction, Materials Science Forum (Volumes 830-831) pp: 691-694, 2015

2. D. Ramachandran, A. M. Kamalan Kirubaharan, Arul Maximus Rabel and P. Kuppusami, Thermal Expansion Behavior of Inconel-690 by In-situ High Temperature X-Ray Diffraction, Materials Science Forum (Volumes 830-831) pp: 367-370, 2015

3. T. Dharini, P. Kuppusami, A. M. Kamalan Kirubaharan, R. Ramaseshan, Arul Maximus Rabel, and S. Dash, Influence of Substrate Temperature on the Adhesion Property of YSZ Coatings on Inconel 718 Prepared by EBPVD, Advanced Materials Letters 2016, 7(10), 826-830.

4. Gobi Saravanan Kaliaraj, M. Bavanilathamuthiah, A. M. Kamalan Kirubaharan, D. Ramachandran, T. Dharini, K. Viswanathan, Vinita Vishwakarma, Bio-inspired YSZ coated titanium by EB-PVD for biomedical applications, Surface and Coatings Technology, 307 (2016) 227-235.

5. Gobi Saravanan Kaliaraj, A. M. Kamalan Kirubaharan, G. Pradhaban, P. Kuppusami and Vinita Vishwakarma, Isolation and characterization of biogenic calcium carbonate/phosphate from oral bacteria and their adhesion studies on YSZ-coated titanium substrate for dental implant application, Bulletin of Materials Science, 39 (2016) 385-389.

6. A.M. Kamalan Kirubaharan, P. Kuppusami, Sujay Chakravarthy, D. Ramachandran and Akash Singh, Thermal expansion and residual stress behaviour of electron beam evaporated yttria stabilized zirconia films on Inconel-690 substrates, Journal of Alloys and Compounds, 722 (2017) 585-592.

7. A.M. Kamalan Kirubaharan, P. Kuppusami, Sujay Chakravarthy, D. Ramachandran and Akash Singh, Thermal expansion and residual stress behaviour of electron beam evaporated yttria stabilized zirconia films on Inconel-690 substrates, Journal of Alloys and Compounds, 722 (2017) 585-592.

8. P. Kuppusami, T. Dharini, Ajith Kumar Soman, A.M. Kamalan Kirubaharan, Arul Maximus Rabel, A Comparative Study on Sintering Behavior of Low and High Density Pellets of Ni-YSZ by Electrochemical Impedance Spectroscopy, Nano Hybrids and Composites, 17 (2017) 237-245.

9. Gobi Saravanan Kaliaraj, Kamalan Kirubaharan AM, Karthik Alagarsamy, Vinita Vishwakarma, Silver-ceria stabilized zirconia composite coatings on titanium for potential implant applications, Surface and Coatings Technology, 368 (2019) 224-231.

10. D. Dinesh Kumar, N Kumar, K Panda, A. M. Kamalan Kirubaharan, P Kuppusami, Tribochemistry of contact interfaces of nanocrystalline molybdenum carbide films, Applied Surface Science, 447 (2018) 677-686.

11. A. M. Kamalan Kirubaharan, P Kuppusami, R Priya, R Divakar, M Gupta, D Pandit, D. Ramachandran, Synthesis, microstructure and corrosion behavior of compositionally graded Ni-YSZ diffusion barrier coatings on inconel-690 for applications in high temperature environments, Corrosion Science 135 (2018) 243-254.

12. M. Kamalan Kirubaharan, P. Kuppusami, T. Dharini, Thermal Expansion Studies of Electron Beam Evaporated Yttria Films on Inconel-718 Substrates, Surface and Coatings Technology,334 (2018) 336-343.

13. A.M. Kamalan Kirubaharan, Kuppusami Parasuraman, Sujay Chakravarty, Arul Maximus Rabel, Anandh Jesuraj Selvaraj and Akash Singh, Residual stress measurements in electron beam evaporated yttria doped zirconia films deposited on Si (111) substrates, Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 36 (2018) 021504.

14. GS Kaliaraj, V Vishwakarma, K Alagarsamy, A. M. Kamalan Kirubaharan, Biological and corrosion behavior of m-ZrO2 and t-ZrO2 coated 316L SS for potential biomedical applications, Ceramics International 44 (2018) 14940-14946.

15. GS Kaliaraj, V Vishwakarma, A. M. Kamalan Kirubaharan, Biocompatible Zirconia-Coated 316 stainless steel with anticorrosive behavior for biomedical application, Ceramics International, 44 (2018) 9780-9786.

16. Gobi Saravanan Kaliaraj, Vinita Vishwakarma, A. M. Kamalan Kirubaharan, T. Dharini, D. Ramachandran, Bavanilatha Muthaiah, Corrosion and biocompatibility behaviour of zirconia coating by EBPVD for biomedical applications, Surface and Coatings Technology, 334 (2018) 336-343.

17. D. Dinesh Kumar, K. Gobi Saravanan, A. M. Kamalan Kirubaharan, A. Karthik, Vinita viswakarma, Biocorrosion and biological properties of sputtered ceramic carbide coatings for biomedical applications, Surface and Coatings Technology, 374 (2019) 569-578.

18. S. Anandh Jesuraj, P. Kuppusami, Ch. Jagadeeswara Rao, A. M. Kamalan Kirubaharan, Deepa Devapal, K. Viswanathan, Phase stability and thermal behavior of single layered PSZ and bi-layered PSZ/Gd2Zr2O7 on bond coated Inconel-718 substrate, Surface and Coatings Technology, 374 (2019) 500-512.

19. T. Dharini, P. Kuppusami, Padmalochan Panda, R. Ramaseshan, A. M. Kamalan Kirubaharan, Nanomechanical behaviour of Ni – YSZ nanocomposite coatings on superalloy 690 as diffusion barrier coatings for nuclear applications, Ceramics International, Accepted, June 2020.

20. D Dinesh Kumar, Revati Rani, Niranjan Kumar, Kalpataru Panda, AM Kamalan Kirubaharan, P Kuppusami, R Baskaran, Tribochemistry of TaN, TiAlN and TaAlN coatings under ambient atmosphere and high-vacuum sliding conditions, Applied Polymer Science, 499 (2020) 143989

21. A. M. Kamalan Kirubaharan, P. Kuppusami, Corrosion Behavior of Ceramic Nanocomposite Coatings at Nano Scale in "Corrosion Protection at the Nanoscale", Elsevier, March 2020. **(Book Chapter)**

List of Patents for last 5 years

1. Deepa Devapal, T.V. Sebastian, A.M. Kamalan Kirubaharan, S. Jeyarajan, B. Deependran, P.V. Prabhakaran, Process for Multilayer Thermal barrier Coating for Protection of Metallic Substrates from Extreme Temperature Conditions - Indian patent Published (4132/CHE/2015) dated 07-08-2015.

2. R. Sreeja, A.M. Kamalan Kirubahran and P.V. Prabhakaran, Metallo-Ceramic Adhesive Composition for High Temperature Joining Applications of Metal Alloys"- Indian Patent Published (6791/CHE/2015) dated 21-12-2015.

3. Deepa Devapal, M.P. Gopakumar, B. Deependran, A.M. Kamalan Kirubaharan, P.V. Prabhakaran, Room temperature curable thermal barrier coatings for high temperature applications - Indian Patent Published- 201741040204.

4. M. Kamalan Kirubaharan, P. Kuppusami, T. Dharini and T. Sasipraba, Development of compositionally graded Ni-YSZ nanocomposite coatings for high-temperature and corrosive environments, Indian Patent Published – 201741046287.

5. Gobi Saravanan Kaliaraj, Vinita Vishwakarma, A. M. Kamalan Kirubaharan, Development of ceramic coatings on dental abutments for better corrosion protection, Indian Patent Published – 201841022285.

6. U. Suresh, P. Kuppusami, A. M. Kamalan Kirubaharan, S. Dhanalakshmi, K. Sasikumar, Development of Ceramic Coatings on M-50 Steel for Better Wear Resistance, Indian Patent – Submitted 202011047353