

LIST OF PUBLICATIONS**Papers published in peer-reviewed Journals**

1. "Liquid Feedstock Plasma Spraying: An Emerging Process for Advanced Thermal Barrier Coatings", N Markocsan, M Gupta, **S Joshi**, P Nylén, X-H Li, J Wigren, J. Thermal Spray Technol., 2017 (in press).
2. "Axial Suspension Plasma Spraying of Al₂O₃ Coatings for Superior Tribological Properties", S Goel, S Björklund, N Curry, U Wiklund, **SV Joshi**, Surface and Coatings Technology, Vol. 315, 2017, p. 80.
3. "Isothermal Oxidation Behavior of HVAF-sprayed Ni and NiCr Coatings in H₂-H₂O Environment", E Sadeghimeresht, N Markocsan, **S Joshi**, Surface and Coatings Technology, Vol. 317, 2017, p. 17.
4. "Morphology Dependent Hardness of Cr₇C₃-Ni rich alloy Composite versus Orientation Independent Hardness of Cr₇C₃ Primary Phase in a Laser Clad Microstructure", L Venkatesh, P Suresh Babu, G Ravi Chandra Gundakaram, R Doherty, **SV Joshi**, I Samajdar, Metallurgical and Materials Transactions A, Vol. 48, 2017, p. 1534.
5. "Effect of Hole-transporting Materials on the Photovoltaic Performance and Stability of All-Ambient-Processed Perovskite Solar Cells", N Islavath, S Saroja, KS Reddy, PC Harikesh, G Veerappan, **SV Joshi**, E Ramasamy, J Energy Chemistry, 2017 (in press).
6. "Correlation of Splat State with Deposition Characteristics of Cold Sprayed Niobium Coatings", S Kumar, M Ramakrishna, NM Chavan, **SV Joshi**, Acta Materialia, Vol. 130, 2017, p. 177.
7. "Isothermal Oxidation of HVAF-sprayed Ni-based Chromia, Alumina and Mixed-oxide scale Forming Coatings in Ambient Air", E Sadeghimeresht, N Markocsan, M Huhtakangas, **S Joshi**, Surface and Coatings Technology, Vol. 316, 2017, p.10.
8. "Seed Layer-assisted Low Temperature Solution Growth of 3D ZnO Nanowall Architecture for Hybrid Solar Cells", N Islavath, D Das, **SV Joshi**, E Ramasamy, Materials & Design, Vol. 116, 2017, p.219.
9. "High Performance Broad-band Antireflective Coatings Using a Facile Synthesis of Ink-bottle Mesoporous MgF₂ Nanoparticles for Solar Applications", D Karthik, S Pendse, S Sakthivel, E Ramasamy, **SV Joshi**, Solar Energy Materials and Solar Cells, Vol. 159, 2017, p.204.
10. "Effect of Substrate Roughness on Adhesion and Tribological Properties of nc-TiAlN/ α -Si₃N₄ Nanocomposite Coatings Deposited by Cathodic Arc PVD Process", N Ravi, R Markandeya and **SV Joshi**, Surface Engineering, Vol. 33, 2017, p.7.
11. "Fracture Behaviour of nc-TiAlN/ α -Si₃N₄ Nanocomposite Coating During Nanoimpact Test", N Ravi, R Markandeya, **SV Joshi**, Surface Engineering, Vol. 33, 2017, p.282.
12. "Microstructure and Performance of Cold Sprayed Al-SiC Composite Coatings with High Fraction of Particulates", S Kumar, SK Reddy, **SV Joshi**, Surface and Coatings Technology, Vol. 318, 2017, p.62.
13. "Influence of Isothermal Heat Treatment on Porosity and Crystallite Size in Axial Suspension Plasma Sprayed Thermal Barrier Coatings for Gas Turbine Applications", A Ganvir, N Markocsan, **S Joshi**, Coatings, Vol. 7, 2016, p.4.
14. "Effect of Nitrogen Pressure on Mechanical Properties of nc-TiAlN/ α -Si₃N₄ Nanocomposite Coatings Deposited by Cathodic Arc PVD Process", N Ravi, R Markandeya, **SV Joshi**, Materials Today: Proceedings, Vol. 3, 2016, p.3002.
15. "Facile One-Step Route for the Development of in Situ Cocatalyst-Modified Ti³⁺ Self-Doped TiO₂ for Improved Visible-Light Photocatalytic Activity", R Kumar, S Govindarajan, KSKJ Reddy, TN Rao, **SV Joshi**, S Anandan, ACS Applied Materials & Interfaces, Vol. 8, 2016, p.27642.
16. "Spray-Freeze-Dried Nanosized Silicon Carbide Containing Granules: Properties, Compaction Behaviour and Sintering", P Barick, BP Saha, **SV Joshi**, R Mitra, J. European Ceramic Society, Vol. 36, 2016, p. 3863-3877.
17. "Oxidation Behavior of HVAF-Sprayed NiCoCrAlY Coating in H₂-H₂O Environment", E Sadeghimeresht, H Hooshyar, N Markocsan, **S Joshi**, P Nylén, Oxidation of Metals, Vol. 86, 2016, p. 299-314.
18. "Studies on Cathodic Arc PVD Grown TiCrN Based Erosion Resistant Thin Films", K Valletti, C Puneet, **SV Joshi**, J. Vacuum Science & Technology, Vol. A 34, 2016, p. 041512.

19. "Influence of Annealing on Mechanical and Electrochemical Properties of Cold Sprayed Niobium Coatings", S Kumar, A Jyothirmayi, N Wasekar, **SV Joshi**, Surface and Coatings Technology, Vol. 296, 2016, p.124.
20. "Effect of Chromium and Aluminum Addition on Anisotropic and Microstructural Characteristics of Ball Milled Nanocrystalline Iron", R Kumar, J Joardar, RKS Raman, VS Raja, **SV Joshi**, S Parida, J. Alloys and Compounds, Vol. 671, 2016, p.164.
21. "Effect of Heat Treatment on the Mechanical Properties and Corrosion Performance of Cold Sprayed Tantalum Coating" S Kumar, V Vidyasagar, A Jyothirmayi, **SV Joshi**, J. Thermal Spray Technol., Vol. 25, 2016, p.745.
22. "Influence of Microstructure on Thermal Properties of Axial Suspension Plasma Sprayed YSZ Thermal Barrier Coatings", A Ganvir, N Curry, N Markocsan, P Nysten, **S Joshi**, M Vilemova, Z Pala, J. Thermal Spray Technol., Vol. 25, 2016, p. 202.
23. "Microstructural, Phase Evolution and Corrosion Properties of Silicon Carbide Reinforced Pulse Electrodeposited Nickel-Tungsten Composite Coatings", S Singh, NP Wasekar, **S Joshi**, G Sundararajan, R Singh, AK Keshri, Applied Surface Science, Vol. 364, 2016, p.264.
24. "Effect of Pressure and Temperature on Densification, Microstructure and Mechanical Properties of Spark Plasma Sintered Silicon Carbide Processed with β -silicon Carbide Nanopowder and Sintering Additives", P Barick, D Chakravarty, BP Saha, R Mitra, **SV Joshi**, Ceramics International, Vol. 42, 2016, p.3836.
25. "Development of Erosion-Corrosion-Resistant Cold-Spray Nanostructured Ni-20Cr Coating for Coal-Fired Boiler Applications", M Kumar, H Singh, N Singh, NM Chavan, S Kumar, and **SV Joshi**, J. Thermal Spray Technol., Vol. 24, 2015, p.1441.
26. "High Temperature Stable Solar Selective Coatings by Cathodic Arc PVD for Heat-Collecting Elements", K Valleti, D Murali Krishna, P Mohan Reddy, **SV Joshi**, Solar Energy Materials & Solar Cells, Vol. 145, 2016, p. 447.
27. "Innovation Paradigms: Contractual Models for Research & Technology Organizations", S Bharadwaj, G Padmanabham, K Jain, **SV Joshi**, Intl J Tech Transfer & Commercialization, Vol. 13, 2016, p.133.
28. "Engineered Surfaces for Automotive Engine and Power Train Components", G Sundararajan, **SV Joshi**, L Ramakrishna, Current Opinion in Chemical Engineering, Vol. 11, 2016, p.1-6.
29. "Continuous Wave Diode Laser Surface Texturing of Austenitic and Pearlitic Steels", SM Shariff, S Koppoju, TK Pal, P Gadhe and **SV Joshi**, Materials Sciences & Applications, Vol. 6, 2015, p.889.
30. "Microstructure and Phase Evolution in Laser Clad Chromium Carbide-NiCrMoNb", L Venkatesh, I Samajdar, M Tak, RD Doherty, RC Gundakaram, K Satya Prasad, **SV Joshi**, Applied Surface Science, Vol. 357, 2015, p.2391.
31. "Thermal Spray Coating for Blast Furnace Tuyere Applications", A Pathak, G Sivakumar, D Prusty, J Shalini, M Dutta, **SV Joshi**, J. Thermal Spray Technol., Vol. 24, 2015, p.1429.
32. "Effect of SPPS Process Parameters on In-Flight Particle Generation and Splat Formation to Achieve Pure α -Al₂O₃ Coatings", G Sivakumar, M Ramakrishna, RO Dusane, **SV Joshi**, J. Thermal Spray Technol., Vol. 24, 2015, p.1221.
33. "Hybrid Processing with Powders and Solutions: A Novel Approach to Deposit Composite Coatings", **SV Joshi**, G Sivakumar, J. Thermal Spray Technol., Vol. 24, 2015 p.1166.
34. "Evolution of Texture During Laser Surface Treatment of an Austenitic Manganese Steel", Suresh Koppoju, SM Shariff, AK Singh, R Mantripragada, P Gadhe, **SV Joshi**, Materials Characterization, Vol. 102, 2015, p.29.
35. "Hot Corrosion Behavior of Solution Precursor and Atmospheric Plasma Sprayed Thermal Barrier Coatings", A Ajay, VS Raja, G Sivakumar, **SV Joshi**, Corrosion Science, Vol. 98, 2015, p.271-279.
36. "Process Parameter Impact on Properties of Sputtered Large-area Mo Bilayers for CIGS Thin Film Solar Cell Applications", AC Badgular, SR Dhage, **SV Joshi**, Thin Solid Films 589, 2015, pp.79.
37. "Zirconia-Nanoparticle-Reinforced Morphology-Engineered Graphene-Based Foams", D Chakravarty, CS Tiwary, LD Machado, G Brunetto, S Vinod, RM Yadav, DS Galvao, **SV Joshi**, G Sundararajan, PM Ajayan, Advanced Materials, 27, 2015, p. 4534-4543.
38. "Development of Nano-crystalline Cold Sprayed Ni-20Cr Coatings for High Temperature Oxidation Resistance", M Kumar, H Singh, N Singh, Sung-Min Hong, In-Suk Choi, Jin-Yoo Suh, NM Chavan, S Kumar, **SV Joshi**, Surface & Coatings Technology, Vol. 266, 2015, p. 122-133.

39. "Study of Mechanical Properties and High Temperature Oxidation Behavior of a Novel Cold-spray Ni-20Cr Coating on Boiler Steels", N Kaur, M Kumar, SK. Sharma, DY Kim, S Kumar, NM Chavan, **SV Joshi**, Narinder Singh, Harpreet Singh, Applied Surface Science, Vol. 328, 2015, 13.
40. "Enhanced Photoresponse of Cu(In,Ga)Se₂/CdS Heterojunction Fabricated Using Economical Non-Vacuum Methods", S Mandati, BV Sarada, SR Dey and **SV Joshi**, Electronic Materials Letters, Vol.11, 2015, p.618.
41. "Spray Coated Seed Layer for Scalable Synthesis of Aligned ZnO Nanowire Arrays on FTO Substrate and their Photovoltaic Properties", N Islavath, E Ramasamy, D Das, **SV Joshi**, Ceramics International, 41, 2015, p.4118-4122.
42. "Effect of Concentration and Molecular Weight of Polyethylenimine on Zeta Potential, Isoelectric Point of Nanocrystalline Silicon Carbide in aqueous and Ethanol Medium", P Barick, BP Saha, R Mitra, **SV Joshi**, Ceramics International, 41, 2015, p.4289.
43. "Photoelectrochemistry of Cu(In,Ga)Se₂ Thin-Films Fabricated by Sequential Pulsed Electrodeposition", S Mandati, BV Sarada, SR Dey and **SV Joshi**, J Power Sources, Vol. 273, 2015, p. 149.
44. "Influence of Applied Pressure during Field-assisted Sintering of Ti(C, N)-WC-FeAl based Nanocomposite", MS Archana, V Srikanth, **SV Joshi** and J Joardar, Ceramics International, Vol. 41, 2015, p.1986.
45. "Non-vacuum route for CIGS thin film absorber on flexible glass substrates", AC Badgular, K Madhuri, S Garner, SR Dhage, **SV Joshi**, Photovoltaic Specialist Conference (PVSC), 2015 IEEE 42nd, p.1.
46. "Fabrication of CIGS Thin Film Absorber by Laser Treatment of Pre-deposited Nano-ink Precursor Layer", SR Dhage, M Tak and **SV Joshi**, Materials Letters, Vol. 134, 2014, p. 302.
47. "Effect of Microstructure and Phase Constitution on Mechanical Properties of Ti_{1-x}Al_xN Coatings", P Sai Pramod, K Valleti, RC Gundakaram, KV Rajulapati, M Ramakrishna, S Koppoju and **SV Joshi**, Applied Surface Science, Vol. 313, 2014. p.936.
48. "Understanding the Formation of Vertical Cracks in Solution Precursor Plasma Sprayed Ytria-Stabilized-Zirconia Coatings", S Govindarajan, RO Dusane and **SV Joshi**, J. American Ceramic Society, Vol. 97, 2014, p. 3396.
49. "Rapid Consolidation of FeAl-Fe₃AlC_x Ultrafine Composites by Mechanically-activated Field-Assisted Technique", MS Archana, RC Gundakaram, YS Rao, VVSS Srikanth, **SV Joshi** and J Joardar, Materials Science Engineering A, Vol. 611, 2014, p. 298.
50. "Hybrid Plasma Sprayed Thermal Barrier Coatings Using Powder and Solution Precursor Feedstock", **SV Joshi**, G Sivakumar, T Raghuvveer and RO Dusane, J. Thermal Spray Tech., Vol. 23, 2014, p. 616.
51. "Deposition of Nanocomposite Coatings Employing a Hybrid APS + SPPS Technique", A Lohia, G Sivakumar, M Ramakrishna and **SV Joshi**, J. of Thermal Spray Tech., Vol. 23, 2014, p.1054.
52. "Design and development of ferrite composite film electrode for photoelectrochemical energy application" by R Dom, G. Siva Kumar, H Gyu Kim, **SV Joshi**, A Sadananda Chary and PH Borse, Materials Science Forum, Vol.781, 2014, p. 45.
53. "Nano-Enabled Tribological Thin Film Coatings : Global Patent Scenario", K Samba Sivudu, YR Mahajan and **SV Joshi**, Recent Patents on Nanotechnology, Vol. 8, 2014, p. 97.
54. "Nanocrystalline Phases During Mechanically Activated Processing of an Iron (Fe) – Aluminium (40 at.% Al) Alloy", S Archana, R Gundakaram, M Ramakrishna, VVSS. Srikanth, **SV Joshi** and J Joardar, Materials & Manufacturing Processes, Vol. 29, 2014 p.864.
55. "Strategic Alliances for Advanced Materials Technologies' Value Chain : Research and Technology Organisation (RTO)'s Perspective", S Bharadwaj, G Padmanabham, K Jain, K Momaya and **SV Joshi**, Proc. of 2nd Int. Conf. on Management of Intellectual Property Rights and Strategy, Eds. : Shishir K Jha and Gouri Gargate, 2014.
56. "Detonation Gun Sprayed Al₂O₃-13TiO₂ Coatings for Biomedical Applications", G Manivasagam and **SV Joshi**, Surface Engineering, 30, 2014, p. 229.
57. "CuIn_{1-x}Ga_xSe₂ Thin-Film Absorber Layers for Solar Photo-voltaics Fabricated by Two-stage Pulsed Current Electrodeposition", S Mandati, BV Sarada, SR Dey and **SV Joshi**, Materials Letters, Vol. 118, 2014, p. 158.
58. "Functional Multi-Layer Nitride Coatings for High Temperature Solar Selective Applications", K Valleti, D. Murali Krishna and **SV Joshi**, Solar Energy Materials & Solar Cells, Vol. 121, 2014, p.14.

59. "Characterization of multilayer nitride coatings by electron microscopy and modulus mapping", P Sai Pramod, KV Rajulapati, M Ramakrishna, K Valleti, RC Gundakaram, **SV Joshi**, Materials Characterization, Vol. 81, 2013, p. 7.
60. "Eco-friendly Ferrite Nano-Composite Photoelectrode for Improved Solar Hydrogen Generation", R Dom, G Sivakumar, NY Hebalkar, **SV Joshi**, PH Borse, RSC Advances, Vol. 3, 2013, p.15217.
61. "A Novel Approach to Process Phase Pure α -Al₂O₃ Coatings by Solution Precursor Plasma Spraying", G Sivakumar, RODusane and **SV Joshi**, J. European Ceramic Society, Vol. 33, 2013, p.2823.
62. "Influence of Chemical Composition and Prior Microstructure on Diode Laser Hardening of Railroad Steels", SM Shariff, TK Pal, G Padmanabham and **SV Joshi**, Surface & Coating Technologies, Vol. 228, 2013, p. 14.
63. "Pulsed Electrodeposition of CuInSe₂ Thin Films with Morphology for Solar Cell Applications", M Sreekanth, BV Sarada, SR Dey and **SV Joshi**, J. Electrochemical Society, Vol. 160, 2013, p.173.
64. "Comparative Studies on Tribocorrosion Behaviour of Plasma-Sprayed Al₂O₃-13%TiO₂ and Detonation Gun Coatings of Al₂O₃-13%TiO₂ on Biomedical Alloy Ti-13Nb-13Zr and Gum Metal", PS Rathore, S Gulati, D Li, M Geetha, ST Aruna, **SV Joshi** and JA Szpunar, Tribo Corrosion, ASTM Spec. Tech. Pub., Article No. STP 20120059, STP 1563, 2013.
65. "Improved Photoelectrochemical Performance of Cu(In,Ga)Se₂ Thin Films Prepared by Pulsed electrodeposition", M Sreekanth, BV Sarada, SR Dey and **SV Joshi**, J. Renewable and Sustainable Energy Vol. 5, 031602, 2013.
66. "Technology Commercialization by Micro, Small and Medium Enterprises (MSMEs) in Indian Context : Challenges and Governmental Support Systems", S Bharadwaj, K Jain and **SV Joshi**, Indian J. of Economics and Business, Vol. 12, 2013, p.57.
67. "A Review of Technology Commercialization Models: Suitability for Indian Research and Technology Organizations (RTOs) in Advanced Materials Sector", S Bharadwaj, K Jain and **SV Joshi**, Intl. J. Business Administration & Management, Vol. 3, 2013, p.21.
68. "Deposition of Nanostructured Photocatalytic Zinc Ferrite Films Using Solution Precursor Plasma Spraying", R Dom, G Sivakumar, NY Hebalkar, **SV Joshi**, PH Borse, Materials Research Bulletin, Vol 47, 2012 p. 562.
69. "Factors Influencing Properties of CrN Thin Films Grown by Cylindrical Cathodic Arc Physical Vapour Deposition on HSS Substrates", K Valleti, C Rejin, **SV Joshi**, Materials Science and Engineering A, Vol. 545, 2012, p. 155.
70. "Investigation of Compaction Behaviour of Alumina Nanopowder," BP Saha, Vinoth Kumar, S **SV Joshi**, A Balakrishnan and CL Martin, Powder Technology, Vol. 224, 2012, p. 90.
71. "Structure-Property Correlations in Cathodic Arc Deposited TiAlN Coatings", P Sai Pramod, K Valleti, M Ramakrishna, KV Rajulapati, RC Gundakaram, **SV Joshi**, Materials Science Forum, Vol. 702-703, 2012, p. 967.
72. "Process Parameter Impact on Microstructure of Laser Clad Inconel-Chromium Carbide Layers" L Venkatesh, I Samajdar, M Tak, RC Gundakaram, **SV Joshi**, Materials Science Forum, Vol. 702-703, 2012, p.963.
73. "*In situ* Particle Generation and Splat Formation during Solution Precursor Plasma Spraying of Ytria Stabilized Zirconia Coatings", G Sivakumar, RO Dusane and **SV Joshi**, J.Am.Ceram.Soc., Vol. 94(12), 2011, p.4191.
74. "Influence of substrate temperature and bias voltage on properties of chromium nitride thin films deposited by cylindrical cathodic arc deposition", K Valleti, A Jyothirmayi, M Ramakrishna and **SV Joshi**, J. Vac. Sci. Technol. A, Vol.29(5), 2011, p.051515.
75. "Processing-Structure-Property Relationships in Electron Beam Physical Vapor Deposited Ytria Stabilized Zirconia Coatings", D Srinivasa Rao, K Valleti, **SV Joshi** and G Ranga Janardhan, J. Vac. Sci. Technol. A, Vol. 29, 2011, p.031501.
76. "Comparative Study on Dry Sliding Wear Behaviour of Various Railroad Steels", SM Shariff, TK Pal, G Padmanabham and **SV Joshi**, J. Tribology, Vol.133, 2011, p.021602.
77. "Modeling of Compaction and Green Strength of Aggregated Ceramic Powders", A Balakrishnan, C Martin, BP Saha and **S Joshi**, J. Am. Ceram. Soc., Vol.94, 2011, p.1046.
78. "Effect of Particle Size in Aggregated and Agglomerated Ceramic Powders", A Balakrishnan, P Pizette, C Martin, **S Joshi** and BP Saha, Acta Materialia, Vol. 58, 2010, p.802.

79. "Sliding Wear Behaviour of Laser Surface Modified Pearlitic Rail Steel", SM Shariff, TK Pal, G Padmanabham and **SV Joshi**, Surface Engineering, Vol. 26, 2010, p.199.
80. "Biofouling Studies on Nanoparticle-Based Metal Oxide Coatings on Glass Coupons Exposed to Marine Environment", R Dineshran, R Subasri, KRC Somaraju, K Jayaraj, L Vedaprakash, KrupaRatnam, **SV Joshi** and R Venkatesan, Colloids and Surfaces B Biointerfaces, Vol. 74, 2009, p.75.
81. "Damage Resistance of a Thermal Barrier Coated Superalloy Used in Aero Turbine Blade Under Accelerated Creep Condition", AK Ray, G Krishna, J Swaminathan, SC Bose, N Roy, NY Tiwari, PK Roy, Z Alam, VSRA Sarma, **SV Joshi**, B Venkatraman and DK Das, High Temp. Matls. & Processes, Vol. 28, 2009, p.35.
82. "Mechanical Property and Characterization of a NiCoCrAlY Type Metallic Bond Coat Used in Turbine Blade", AK Ray, N Roy, A Kar, AK Ray, SC Bose, G Das, JK Sahu, DK Das, B Venkatraman and **SV Joshi**, Mat. Sci. Engg. A, Vol. 505, 2009, p.96.
83. "Effect of Grinding on Plain Fatigue and Fretting Fatigue Behaviour of Detonation Gun Sprayed Cu-Ni-In Coating on Al-Mg-Si Alloy", B Rajasekaran, S Ganesh Sundara Raman, **SV Joshi** and G Sundararajan, Intl. J. Fatigue, Vol. 31, 2009, p.791.
84. "Optical Diagnostics Study of Gas Particle Transport Phenomena in Cold Gas Dynamic Spraying and Comparison with Model Predictions", P Sudarshan Phani, V Vishnukanthan, **SV Joshi** and G Sundararajan, J. Thermal Spray Technology, Vol.17, 2008, p.551.
85. "Studies on Phase Dependent Mechanical Properties of DC Magnetron Sputtered TaN Thin Films: Evaluation of Superhardness in Orthorhombic Ta₄N Phase", K Valleti, A Subrahmanyam, **SV Joshi**, AR Phani, M Passacantando and S Santucci, J. of Physics D: Applied Physics, Vol. 41, 2008, p.45409.
86. "Effect of Microarc Oxidised Layer Thickness on Plain Fatigue and Fretting Fatigue Behaviour of Al-Mg-Si Alloy", B Rajasekaran, S Ganesh Sundara Raman, **SV Joshi** and G Sundararajan, Intl. J. Fatigue, Vol. 30, 2008, p.1259.
87. "Electro-Spark Coatings for Enhanced Performance of Twist Drills", KRC Somaraju, Nadimul Haque Faisal, D Srinivasa Rao, **SV Joshi** and G Sundararajan, Surface & Coatings Technol., Vol. 202, 2008, p.1636.
88. "Growth of Nano Crystalline Near α -Phase Tantalum Thin Films at Room Temperature Using Cylindrical Magnetron Cathode", K Valleti, A Subrahmanyam, **SV Joshi**, Surface Coatings & Technology, Vol. 202, 2008, p.3325.
89. "Performance of Plasma Sprayed and Detonation Gun Sprayed Cu-Ni-In Coatings on Ti-6Al-4V under Plain Fatigue and Fretting Fatigue Loading", B Rajasekaran, S Ganesh Sundara Raman, **SV Joshi**, G Sundararajan, Materials Science and Engineering A, Vol. 479, 2008, p.83.
90. "Influence of Detonation Gun Sprayed Alumina Coating on AA 6063 Samples under Cyclic loading with and without Fretting", B Rajasekaran, S Ganesh Sundara Raman, **SV Joshi**, G Sundararajan, Tribology International, Vol. 41, 2008, p. 315.
91. "Influence of Microarc Oxidation and Hard Anodizing on Plain Fatigue and Fretting Fatigue Behaviour of Al-Mg-Si Alloy", B Rajasekaran, S Ganesh Sundara Raman, L. Rama Krishna, **SV Joshi**, G Sundararajan, Surface & Coatings Technology, Vol. 202, 2008, p. 1462.
92. "Slurry Erosion Studies on Surface Modified 13Cr-4Ni Steels: Effect of Angle of Impingement and Particle Size", T Manisekaran, M Kamaraj, SM Shariff, **SV Joshi**, J. Materials Engg. and Performance, Vol. 16, 2007, p.567.
93. "Mechanical and Tribological Properties of Compositionally Graded CrAlN Films Deposited by AC Reactive Magnetron Sputtering", SR Pulugurtha, DG Bhat, MH Gordon, J Shultz, M Staia, **SV Joshi**, G Sundararajan, Surface & Coatings Technology, Vol. 202, 2007, p.1160.
94. "Effect of Process Parameters and Heat Treatments on Properties of Cold Sprayed Copper Coatings," P Sudharshan Phani, . Srinivasa Rao, **SV Joshi**, G Sundararajan, J. Thermal Spray Technology, Vol. 16, 2007, p.425.
95. "Influence of Substrate Material on Plain Fatigue and Fretting Fatigue Behavior of Detonation Gun Sprayed Cu-Ni-In Coating", SG Sundara Raman, B Rajasekaran, **SV Joshi**, G Sundararajan, J. Thermal Spray Technology, Vol. 16, 2007, p. 571.
96. "Laser Surface Hardening of Austempered (Bainitic) Ball Bearing Steel", A Basu, J Chakraborty, SM Shariff, G Padmanabham, **SV Joshi**, G Sundararajan, J Dutta Majumdar, I Manna, Scripta Materialia, Vol. 56, 2007, p. 887.

97. "Effect of Arc Suppression on the Physical Properties of Low Temperature DC Magnetron Sputtered Tantalum Thin Films", A Subrahmanyam, K Valleti, **SV Joshi**, G Sundararajan, J. Vac. Sci. Technol. Vol. A25, 2007, p. 378.
98. "Integrity of Detonation Sprayed $\text{Cr}_x\text{C}_y\text{-NiCr}$ Coating under Exposure to Thermal Cycling", J George, P Bhargava, DS Rao and **SV Joshi**, Advances in Applied Ceramics, Vol. 105, 2006, p. 148.
99. "Effect of Pulsed Nd:YAG Laser Melting Treatment on Microstructural and Corrosion Behaviour of AZ91C Mg Alloy", C Padmavathi, JK Sarin Sundar, **SV Joshi**, K Prasad Rao, Materials Science and Technology, Vol. 22, 2006, p. 583.
100. "Improving Wear Resistance of Cast AZ91C Magnesium Alloy by Surface Melting Techniques", C Padmavathi, JK Sarin Sundar, **SV Joshi**, K Prasad Rao, Trans. Indian Inst. Met., Vol. 59, 2006, p. 99.
101. "Effect of Detonation Gun Sprayed Cu-Ni-In Coating on Plain Fatigue and Fretting Fatigue Behaviour of Al-Mg-Si Alloy", B Rajasekaran, SGS Raman, **SV Joshi**, G Sundararajan, Surface & Coatings Technology, Vol. 201, 2006, p. 1548.
102. "Influence of Process Parameters during Pulsed Nd:YAG Laser Cutting of Nickel-Base Superalloys," G Thawari, JK Sarin Sundar, G Sundararajan and **SV Joshi**, J. Materials Processing Technology, Vol. 170, 2005, p. 229.
103. "A Statistical Approach to Determine Process Parameter Impact in Nd:YAG Laser Drilling of IN718 and Ti-6Al-4V Sheets," S Bandyopadhyay, H Gokhale, JK Sarin Sundar, G Sundararajan and **SV Joshi**, J. Optics & Lasers in Engineering, Vol. 43, 2005, p. 163.
104. "Property Enhancement of Diffusion Borided Layers by Laser Treatment", SM Shariff, V Jain, G Sundararajan and **SV Joshi**, J. Laser Applications, Vol. 17, 2005, p. 100.
105. "Surface Engineering in India : On the Upswing", **SV Joshi**, G Sundararajan, T Bell, Surface Engineering, Vol. 20, 2004. p. 81.
106. "High Temperature Oxidation Behaviour of Directionally Solidified Ni-Base Superalloy CM-247LC," DK Das, V Singh, **SV Joshi**, Mat. Sci. Technol., Vol.19, 2003, p. 695.
107. "Laser Surface Alloying of Medium Carbon Steel with SiC_p ", Thin Solid Films, G Thawari, G Sundararajan, **SV Joshi**, Vol. 423, 2003, p. 41.
108. "Geometrical Features and Metallurgical Characteristics of Nd:YAG Laser Drilled Holes in Thick IN718 and Ti-6Al-4V Sheets," S Bandyopadhyay, JK Sarin Sundar, G Sundararajan, **SV Joshi**, J. Materials Processing Technology, Vol.127, 2002, p.83.
109. "Effect of Al Content on Microstructure and Cyclic Oxidation Performance of Pt-Aluminide Coatings," DK Das, V Singh, **SV Joshi**, Oxidation of Metals, Vol. 57, 2002, p. 245.
110. "Experimental Design and Performance Analysis of Alumina Coatings Deposited by a Detonation Spray Process", P Saravanan, V Selvarajan, **SV Joshi**, G Sundararajan, J. Phys. D. : Appl. Phys., Vol. 34, 2001, p.131.
111. "Influence of Spraying Variables on Structure and Properties of Plasma Sprayed Alumina Coatings," P Saravanan, V Selvarajan, MP Srivastava, **SV Joshi**, G Sundararajan, British Ceramic Transactions, Vol. 99, 2000, p. 241.
112. "Effect of Pre-Aluminizing Diffusion Treatment on Microstructural Evolution of High-Activity Pt-Aluminide Coatings", DK Das, V Singh, **SV Joshi**, Metallurgical and Materials Transactions A-Physical Metallurgy and Materials Science, Vol. 31, 2000, p. 2037.
113. "Study of Plasma and Detonation Gun Sprayed Alumina Coatings Using Taguchi Experimental Design", P Saravanan, V Selvarajan, MP Srivastava, DS Rao, **SV Joshi**, G Sundararajan, J. Thermal Spray Technology, Vol. 9, 2000, p. 505.
114. "Application of Taguchi Method for Optimization of Detonation Gun Spray Process," P Saravanan, V Selvarajan, DS Rao, **SV Joshi**, Materials & Manufacturing Processes, Vol. 15, 2000, p.139.
115. "Influence of Process Variables on the Quality of Detonation Gun Sprayed Alumina Coatings", P Saravanan, V Selvarajan, DS Rao, **SV Joshi**, G Sundararajan, Surface & Coatings Technology, Vol. 123, 2000, p. 44.
116. "The Cyclic Oxidation Performance of Aluminide and Pt-Aluminide Coatings on Cast Ni-Based Superalloy CM-247, DK Das, V Singh, **SV Joshi**, JOM-c, 52, 2000.
117. "Microstructural Degradation of Plain and Pt-Aluminide Coatings on Superalloy CM247 During Isothermal Oxidation", DK Das, M Roy, V Singh, **SV Joshi**, Materials Science & Technology, Vol. 15, 1999, p. 1199.

118. "Parametric Influence on Cut Quality Attributes and Generation of Processing Maps for Laser Cutting", SM Shariff, G Sundararajan, **SV Joshi**, J. Laser Applications, Vol.11, 1999, p. 54.
119. "Optimizing Plasma Sprayed Alumina Coatings Using Design of Experiments," P Saravanan, V Selvarajan, MP Srivastava, **SV Joshi** and G Sundararajan, Advances in Applied Plasma Science, Vol. 2, 1999.
120. "Evolution of Aluminide Coating Microstructure on Nickel-base Cast Superalloy CM-247 in a single-Step High-Activity Aluminizing Process, DK Das, V Singh, **SV Joshi**, Metallurgical and Materials Transactions A-Physical Metallurgy and Materials Science, Vol. 29, 1998, p. 2173.
121. "A Comparative Study of Tribological Behaviour of Plasma and Detonation-Gun Sprayed Coatings Under Various Wear Modes", G Sundararajan, KUM Prasad, DS Rao, **SV Joshi**, J Materials Engg. Performance, Vol. 7, 1998, p.343.
122. "Role of Platinum Content in the Microstructural Development and Oxidation Performance of Pt-Aluminide Coatings Produced using a High Activity Aluminizing Process", GR Krishna, DK Das, V Singh, **SV Joshi**, Materials Science & Engineering, Vol. A251, 1998, p. 40.
123. "LifeTime-Determining Factors During Thermal Cycling of Zirconia-Based Thermal Barrier Coatings", **SV Joshi**, MP Srivastava, Surface Engineering, Vol. 23, 1995, p. 233.
124. "Evidence of Accelerated Thermal Cycling Test Schedules Influencing Ranking of Zirconia-Based Thermal Barrier Coatings", **SV Joshi**, MP Srivastava, G Sundararajan, J. Thermal Spray Technology, Vol. 4, 1995, p. 275.
125. "Fundamental Aspects of Thermal Spraying and an Introduction to Detonation Gun Coatings", **SV Joshi**, Trans. Metal Finishers' Assn. of India, Vol. 4, 1995, p. 35.
126. "Thermal Barrier Coatings from Sol-Gel Derived Spray-Grade $Y_2O_3-ZrO_2$ Microspheres", M Chatterjee, J Ray, A Chatterjee, D Ganguli, **SV Joshi**, MP Srivastava, J. Materials Science, Vol. 28, 1993, p. 2803.
127. "On the Thermal Cycling Life of Plasma Sprayed Yttria Stabilized Zirconia Coatings", **SV Joshi**, MP Srivastava, Surface and Coatings Technology, Vol. 56, 1993, p. 215.
128. "Plasma Spraying of Biologically Derived Hydroxyapatite on Implantable Materials", **SV Joshi**, MP Srivastava, A Pal and S Pal, J. Mat. Sci.: Materials in Medicine, Vol. 4, 1993, p. 251.
129. "Plasma Spraying of WC-Co Part I: Theoretical Investigation of Particle Heating and Acceleration During Spraying", **SV Joshi**, J. Thermal Spray Technology, Vol. 2, 1993, p. 127.
130. "Plasma Spraying of WC-Co Part II: Experimental Study of Particle Deposition and Coating Microstructures", **SV Joshi**, MP Srivastava, J. Thermal Spray Technol., Vol. 2, 1993, p. 133.
131. "Plasma Spraying of an Indigenous Yttria Stabilized Zirconia Powder Prepared by the Sol-Gel Technique," **SV Joshi**, MP Srivastava, M Chatterjee, J Ray, A Chatterjee and D Ganguli, Bull. Mat. Sci., Vol. 16, 1993, p. 19.
132. "Comparison of Particle Heat-Up and Acceleration during Plasma and High Velocity Oxy-Fuel Spraying", **SV Joshi**, Powder Metallurgy International, Vol. 24, 1992, p. 373.
133. "Plasma Spraying of Ceramic Powders Produced by the Sol-Gel Technique", **SV Joshi**, D Ganguli, Metals, Materials and Processes, Vol. 4, 1992, p. 33.
134. "Prediction of In-Flight Particle Parameters During Plasma Spraying of Ceramic Powders", **SV Joshi**, R Sivakumar, Mat. Sci. Tech., Vol. 8, 1992, p. 481.
135. "A Prediction Model to Assist Plasma and HVOF Spraying", **SV Joshi**, Mat. Lett., Vol.14, 1992, p. 31.
136. "Particle Behaviour During High Velocity Oxy-Fuel Spraying", **SV Joshi**, R. Sivakumar, Surface and Coatings Technology, Vol. 50, 1991, p. 67.
137. "Protective Coatings by Plasma Spraying : A Review", R Sivakumar, **SV Joshi**, Trans. Indian Ceramic Society, Vol. 50, 1991, p. 1.
138. "Scratch Adhesion Testing of Plasma-Sprayed Yttria Stabilized Zirconia Coatings", DK Das, MP Srivastava, **SV Joshi**, R Sivakumar, Surface and Coatings Technology, Vol. 46, 1991, p. 331.
139. "Effect of Quenching Conditions on Particle Formation and Growth in Thermal Plasma Synthesis of Fine Powders", **SV Joshi**, Q Liang, JY Park, JA Batdorf, Plasma Chem. Plasma Process., Vol. 10, 1990, p. 339.
140. "Removal of Heavy Metals in Publicly Owned Treatment Works", DB. Aulenbach, MA Meyer, E. Beckwith, S.V.Joshi, C.Vasudevan, N.L. Clesceri, Environmental Progress, Vol. 6, 1987, p. 91.
141. "Particle-Gas Mass Transfer Under Plasma Conditions", **SV Joshi**, JY Park, PR Taylor, LS Richardson, Intl. J. Heat and Mass Transfer, Vol. 29, 1986, p. 1565.
142. "Knudsen Effect on Plasma-Particle Mass Transfer: I. Formulation and Application to

- Self-Diffusion", **SV Joshi**, JY Park, PR Taylor, LS Richardson, Plasma Chem. Plasma Process., Vol. 6, 1986, p. 281.
143. "The Integral Mean Diffusivity for Particle-Gas Mass Transfer Under Thermal Plasma Conditions", **SV Joshi**, JY Park, PR Taylor, LS Richardson, Plasma Chem. and Plasma Process., Vol. 5, 1985, p. 143.
144. "Removal of Heavy Metals in Publicly Owned Treatment Works Using Alum or Sodium Aluminate for Phosphorous Removal," in "Toxic and Hazardous Wastes", DB Aulenbach, NL Clesceri, MA Meyer, C Vasudevan, E Beckwith and **SV Joshi**, Proc. 16th Mid-Atlantic Industrial Wastes Conference, M.D. Lagrega and D.A. Long eds., 1984, p.1.

Book Chapters

145. "Composite Coatings Employing a Novel Hybrid Powder and Solution-Based Plasma Spray Technique for Tribological Applications", G Sivakumar, **SV Joshi**, in *Thermal Sprayed Coatings and their Tribological Performances* (M Roy and J Paulo Davim eds.), IGI Global, 2015, p. 61.
146. "Detonation Sprayed Coatings and their Tribological Performance", D Srinivasa Rao, G Sivakumar, D Sen, **SV Joshi**, in *Thermal Sprayed Coatings and their Tribological Performances* (M Roy and J Paulo Davim eds.), IGI Global, 2015, p. 61.
147. "Detonation Spray Coatings", G Sundararajan, D Srinivasa Rao, G Sivakumar, **SV Joshi**, *Encyclopedia of Tribology*, (J. Wang, W. Chung eds.), Springer Science Business Media, 2013, p. 736.
148. "Laser Surface Modification for Protection Against Wear", **SV Joshi**, M Roy in *Surface Engineering for Enhanced Performance against Wear* (Manish Roy ed.), Springer Verlag Wien, 2013, p. 229.
149. "Thermally Sprayed Coatings", **SV Joshi**, in *Surface Engineering* (D Srinivasa Rao and **SV Joshi** eds.), Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), 2010.
150. "Cold Gas Dynamic Spraying", G Sivakumar and **SV Joshi**, in *Surface Engineering* (D Srinivasa Rao and **SV Joshi** eds.), Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), 2010.
151. "Expanding Horizons of High-Power Laser Applications in Advanced Manufacturing", G Sundararajan, **SV Joshi**, Power Beams and Materials Processing – 2002, p. 40.
152. "High Performance Thermal Barrier Coatings and Relevance of Power Beams in their Development", **SV Joshi**, Power Beams And Materials Processing – 2002, p. 106.
153. "Lasers for Metallic and Intermetallic Coatings", **SV Joshi**, G Sundararajan, in *Lasers in Surface Engineering* (N.B. Dahotre ed.), ASM, Materials Park, OH, 1998, p. 121.
154. "An Analytical Approach to Plasma Spraying," in "Plasma Spraying-Theory and Applications," **SV Joshi** and R Sivakumar, World Scientific Publishing Co., 1993, p. 527.
155. "Plasma Coating and Other Thermal Spraying Processes", **SV Joshi**, in "Welding Engineering Handbook – Vol. I," Radiant Publications, 1992, p. 183.

Books/Special Journal Issues Edited

156. "Surface Engineering", D Srinivasa Rao and **SV Joshi** eds., Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), 2010.
157. "High Velocity Oxy-Fuel Spraying: Theory, Structure-Property, Relationships and Applications", by V.V.Sobolev, J.M.Guilemany and J.Nutting, Maney Publications, **SV Joshi**, Consulting Ed. (2004).
158. "Advances in Surface Treatment: Research and Applications", Proc. of Intl. Conf. on Surface Modification Technologies – SMT XVII, T Sudarshan, GE Totten, G Sundararajan, **SV Joshi** eds. (2003).
159. Special Issue on "Accuracy, Reliability and Reproducibility of Various Mechanical Test Techniques", D Banerjee and **SV Joshi** eds., Transactions of the Indian Institute of Metals, Oct. 1996, Vol. 49 (5).

LIST OF PATENTS

Patents Granted

1. "An Improved Method of Forming Holes on a Substrate Using Laser Beams," JK SarinSundar, **SV Joshi**, G Sundararajan, Indian Patent No. 239647, Grant date 29/03/2010.

Patents Applied

2. "Improved Cylindrical Magnetron Cathode and a Process for Depositing Thin Films on Surfaces Using the Said Cathode," A Subrahmanyam, K Valleti, **SV Joshi**, G Sundararajan, Application No. 21/DEL/2008, filing date 03/01/2008.
3. "An Improved Hybrid Methodology for Producing Composite, Multilayered and Graded Coatings by Plasma Spraying Utilizing Powder and Solution Precursor Feedstock", G Sivakumar and **SV Joshi**, Indian Application No. 2965/DEL/2011, filing date 17/10/2011. Also filed in US, UK, Japan, Brazil, Germany, France and South Africa
4. "An Improved Solar Selective Multilayer Coating and a Method of Depositing the same", K Valleti, **SV Joshi**, Application No. 1567/DEL/2012, filing date 22/05/2012.
5. "Process for Producing Anti-Reflective Coatings with Scratch Resistance Property", S Sakthivel, M Rigueira Carnegie M **SV Joshi**, Application No. 1777/DEL/2012, filing date 11/06/2012.
6. "Improved Method of Manufacturing Copper-Indium-Gallium Diselenide Thin Films by Laser Treatment", SR Dhage, M Tak, **SV Joshi**, Application No. 2084/DEL/2012, filing date 05/07/2012.
7. "Process for producing anti-reflective coatings with anti-fogging (super hydrophilic), UV, weather and scratch resistance properties", S Sakthivel, Sherine Alex, **SV Joshi**, Indian patent Application no. 2919/DEL/2013, filing date 3/10/2013.
8. "Process of producing easy to clean coating (Super-hydrophobic coating) with high optical, weather, UV and corrosion resistance properties", S Sakthivel, S Viswanathan, **SV Joshi**, Indian patent Application no. 402/DEL/2014, filing date 13/02/2014.
9. "Method of producing porous MgF₂ nanoparticles, anti-reflection coating suspension and coatings for solar optical, UV and IR transparent window applications", S Sakthivel, Dhadala Karthik, **SV Joshi**, Indian patent Application no. 4041/DEL/2014, filing date 31/12/2014.
10. "A novel electrochemical method for manufacturing CIGS thin films containing nanomesh-like structures", BV Sarada, S Mandati, **SV Joshi**, Indian patent Application no. 426/DEL/2015, filing date 16/02/2015.
11. "Process and apparatus for protection of structural members from wear, corrosion and fatigue damage", L Ramakrishna, D Srinivasa Rao, G Sundararajan, **SV Joshi**, Indian Patent Application No. 1839/DEL/2015 filing date 22/06/2015.
12. "An improved performance of Nanocomposite Oxide Selective Absorber Coating with excellent optical and thermal resistant properties and method of manufacturing the same", S Sakthivel, M Shiva Prasad, B Mallikarjun, **SV Joshi**, Indian Patent Application no. 2142/DEL/2015 filing date 15/07/2015.
13. "Method of producing high performance visible-light-active photocatalytic materials for self-cleaning applications", S Anandan, S Govindarajan, TN Rao, **SV Joshi**, Indian Patent Application no. 2625/DEL/2015 filing date 25/08/2015.
14. "Production of graphene-based materials by thermal spray", E Ramasamy, S Govindarajan, **SV Joshi**, Indian Patent Application no. 2626/DEL/2015 filing date 25/08/2015.