

# Aruna St

## List of Publications by Year in descending order

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108  
papers

6,693  
citations

94269

37  
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64668

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115  
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115  
docs citations

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times ranked

7081  
citing authors

#	ARTICLE	IF	CITATIONS
1	La-and Gd-Doped CeO <sub>2</sub> Nanoparticles as Electrolyte Materials for Intermediate Temperature Solid Oxide Fuel Cells. Springer Proceedings in Materials, 2022, , 127-137.	0.1	0
2	Electrical and thermal stimuli responsive thermoplastic shape memory polymer composites containing rGO, Fe <sub>3</sub> O <sub>4</sub> and rGO@Fe <sub>3</sub> O <sub>4</sub> fillers. Polymer Bulletin, 2021, 78, 6267-6289.	1.7	7
3	Co-fired anode-supported solid oxide fuel cell for internal reforming of hydrocarbon fuel. Energy, Ecology and Environment, 2021, 6, 55-68.	1.9	4
4	Structural and ionic conductivity of Cu-doped titania (Ti <sub>0.95</sub> Cu <sub>0.05</sub> O <sub>2</sub> ) for high temperature energy devices. Ceramics International, 2021, 47, 10284-10290.	2.3	5
5	Solution Combustion Synthesis of Calcium Phosphate-Based Bioceramic Powders for Biomedical Applications. Springer Series in Biomaterials Science and Engineering, 2021, , 175-196.	0.7	1
6	Photocatalytic behavior of titania coatings fabricated by suspension and solution precursor plasma spray processes. Materials and Manufacturing Processes, 2021, 36, 868-875.	2.7	5
7	Hot corrosion properties of plasma sprayed La <sub>2</sub> Ce <sub>2</sub> O <sub>7</sub> /YSZ vis-À-vis La <sub>2</sub> Ce <sub>2</sub> O <sub>7</sub> /cluster paired zirconia thermal barrier coatings. Surface and Coatings Technology, 2021, 409, 126902.	2.2	5
8	Silica-alumina based sol-gel coating containing cerium oxide nanofibers as a potent alternative to conversion coating for AA2024 alloy. Surface and Coatings Technology, 2021, 411, 127007.	2.2	14
9	Enhanced power density in hydrocarbon-compatible anode-supported solid oxide fuel cell facilitated by a functional anode catalyst layer. Nanomaterials and Energy, 2021, 10, 118-127.	0.1	1
10	Synthesis and Properties of a New Chitosan-Based Shape Memory Polymer and its Composites. ChemistrySelect, 2021, 6, 808-819.	0.7	3
11	Hydrocarbon Compatible SOFC Anode Catalysts and Their Syntheses: A Review. Sustainable Chemistry, 2021, 2, 707-763.	2.2	14
12	Effect of the addition of diurethane dimethacrylate on the chemical and mechanical properties of tBA-PEGDMA acrylate based shape memory polymer network. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 110, 103951.	1.5	11
13	Investigating the wetting phenomena and fabrication of sticky, para-hydrophobic cerium oxide coating. Journal of the European Ceramic Society, 2020, 40, 5749-5757.	2.8	6
14	Luminescent Paint for Air Pressure Sensing. Resonance, 2020, 25, 1579-1593.	0.2	0
15	Present status and future prospects of plasma sprayed multilayered thermal barrier coating systems. Journal of the European Ceramic Society, 2020, 40, 2731-2745.	2.8	130
16	Solution Combustion Approach for the Synthesis of Solid Oxide Fuel Cell Materials and Coatings. Sustainable Chemistry Series, 2020, , 149-204.	0.1	0
17	Reclamation of thermal power plant waste as a distributed phase in electrodeposited Ni composite coating. Surface Engineering, 2019, 35, 1042-1047.	1.1	3
18	Multifunctional properties of ceria nanocubes synthesized by a hydrothermal method. Bulletin of Materials Science, 2019, 42, 1.	0.8	5

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19	Solution combustion synthesis of calcia-magnesia-aluminosilicate powder and its interaction with yttria-stabilized zirconia and co-doped yttria-stabilized zirconia. <i>Ceramics International</i> , 2019, 45, 18255-18264.	2.3	6
20	Improved hot corrosion resistance of plasma sprayed YSZ/Gd <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> thermal barrier coating over single layer YSZ. <i>Materials Characterization</i> , 2019, 147, 199-206.	1.9	25
21	Electrolyte bi-layering strategy to improve the performance of an intermediate temperature solid oxide fuel cell: A review. <i>Journal of Power Sources</i> , 2018, 381, 136-155.	4.0	93
22	Carbon plasma immersion ion implantation and DLC deposition on Ni-Ti alloy. <i>Materials and Manufacturing Processes</i> , 2018, 33, 1121-1127.	2.7	12
23	Enhanced mechanical properties of acrylate based shape memory polymer using grafted hydroxyapatite. <i>Journal of Polymer Research</i> , 2018, 25, 1.	1.2	21
24	Co-Cu-YSZ-GDC as an anode material for internal reforming SOFC?. <i>Nanomaterials and Energy</i> , 2018, 7, 44-51.	0.1	1
25	Plasma Sprayed Hydroxyapatite Bioceramic Coatings from Coprecipitation Synthesized Powder: Preparation, Characterization and in vitro Studies. <i>Transactions of the Indian Ceramic Society</i> , 2018, 77, 90-99.	0.4	12
26	CHAPTER 7. Electrospinning: Large-scale Industrial Applications of Superhydrophobic Surfaces in Filtration/Sorbents Applications. <i>RSC Soft Matter</i> , 2018, , 156-186.	0.2	0
27	Carbon nanotubes stabilize high temperature phase and toughen Al <sub>2</sub> O <sub>3</sub> -based thermal barrier coatings. <i>Composites Part B: Engineering</i> , 2017, 124, 76-87.	5.9	39
28	A comparative study on the synthesis and properties of suspension and solution precursor plasma sprayed hydroxyapatite coatings. <i>Ceramics International</i> , 2017, 43, 9715-9722.	2.3	32
29	Solution precursor plasma spray process: A promising route for the fabrication of Mn-Co oxide based protective coating for SOFC. <i>Surface and Coatings Technology</i> , 2017, 324, 26-35.	2.2	12
30	Evaluation of solution combustion synthesized NiO/GDC ceramic powders for anode substrate and anode functional layers of intermediate temperature solid oxide fuel cell. <i>Ceramics International</i> , 2017, 43, 12138-12144.	2.3	3
31	Hot corrosion studies on plasma sprayed bi-layered YSZ/La <sub>2</sub> Ce <sub>2</sub> O <sub>7</sub> thermal barrier coating fabricated from synthesized powders. <i>Journal of Alloys and Compounds</i> , 2017, 711, 355-364.	2.8	27
32	Corrosion, wear, and cell culture studies of oxygen ion implanted Ni-Ti alloy. <i>Surface and Interface Analysis</i> , 2017, 49, 828-836.	0.8	6
33	Corrosion protection behaviour of silica-titania hybrid coatings embedded with silica nanoparticles. <i>Surface Engineering</i> , 2017, 33, 467-473.	1.1	9
34	Dual-Layer Oxidation-Protective Plasma-Sprayed SiC-ZrB <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> -Carbon Nanotube Coating on Graphite. <i>Journal of Thermal Spray Technology</i> , 2017, 26, 417-431.	1.6	18
35	Microstructure and performance of LSM/YSZ based solid oxide fuel cell cathodes fabricated from solution combustion co-synthesized powders and by solution precursor plasma spraying. <i>Surface and Coatings Technology</i> , 2017, 310, 25-32.	2.2	10
36	Effect of composition on the polarization and ohmic resistances of LSM/YSZ composite cathodes in solid oxide fuel cell. <i>Bulletin of Materials Science</i> , 2017, 40, 441-452.	0.8	12

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37	EIS and XPS studies on the self-healing properties of Ce-modified silica-alumina hybrid coatings: Evidence for Ce(III) migration. <i>Surface and Coatings Technology</i> , 2017, 309, 363-370.	2.2	58
38	Tailored poly(ethylene) glycol dimethacrylate based shape memory polymer for orthopedic applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 65, 857-865.	1.5	19
39	Electrospinning in solid oxide fuel cells – A review. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 67, 673-682.	8.2	94
40	Microstructure and electrical properties of plasma sprayed Gd <sub>0.15</sub> Ce <sub>0.85</sub> O <sub>2</sub> - $\gamma$ coatings from solution combustion synthesized flowable powders. <i>Journal of the European Ceramic Society</i> , 2017, 37, 271-279.	2.8	12
41	Ceria nanoparticles vis- $\bar{A}$ -vis cerium nitrate as corrosion inhibitors for silica-alumina hybrid sol-gel coating. <i>Applied Surface Science</i> , 2017, 393, 397-404.	3.1	58
42	Properties of nano-structured Ni/YSZ anodes fabricated from plasma sprayable NiO/YSZ powder prepared by single step solution combustion method. <i>Applied Surface Science</i> , 2016, 389, 983-989.	3.1	8
43	Microstructure and Polarization Studies on Interlayer Free La <sub>0.65</sub> Sr <sub>0.3</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3</sub> Cathodes Fabricated on Yttria Stabilized Zirconia by Solution Precursor Plasma Spraying. <i>Fuel Cells</i> , 2016, 16, 617-627.	1.5	4
44	Deposition and Evaluation of Mn-Co Oxide Protective Sputtered Coating on SOFC Interconnects and Current Collectors. <i>Journal of the Electrochemical Society</i> , 2016, 163, F905-F912.	1.3	7
45	The effect of additives on the properties of electrodeposited Ni-zircon composite coatings. <i>RSC Advances</i> , 2016, 6, 11185-11192.	1.7	13
46	Preparation of Oil-Encapsulated Microcapsules and Tribological Property of Ni Composite Coating. <i>Materials and Manufacturing Processes</i> , 2016, 31, 107-111.	2.7	14
47	Fabrication of Superhydrophobic Zinc Stearate Hierarchical Surfaces from Different Precursors. <i>Materials and Manufacturing Processes</i> , 2016, 31, 1171-1176.	2.7	3
48	Wear and corrosion resistant properties of electrodeposited Ni composite coating containing Al <sub>2</sub> O <sub>3</sub> -TiO <sub>2</sub> composite powder. <i>Surface Engineering</i> , 2015, 31, 708-713.	1.1	44
49	Combustion synthesis in nanostructured reactive systems. <i>Advanced Powder Technology</i> , 2015, 26, 954-976.	2.0	98
50	Optical and RF transparent protective alumina thin films. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 9707-9716.	1.1	10
51	Influence of Critical Parameters on the Properties of Plasma Sprayed Coatings Prepared from Spray Dried Alumina Powder. <i>Transactions of the Indian Ceramic Society</i> , 2014, 73, 293-298.	0.4	2
52	Properties of plasma sprayed yttria stabilized zirconia thermal barrier coating prepared from co-precipitation synthesized powder. <i>Ceramics International</i> , 2014, 40, 11157-11162.	2.3	19
53	Properties and development of Ni/YSZ as an anode material in solid oxide fuel cell: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 36, 149-179.	8.2	280
54	Effect of probe sonication and sodium hexametaphosphate on the microhardness and wear behavior of electrodeposited Ni-SiC composite coating. <i>Applied Surface Science</i> , 2014, 301, 383-390.	3.1	24

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55	Cost-effective wear and oxidation resistant electrodeposited Ni-TiO <sub>2</sub> pumice coating. Surface and Coatings Technology, 2014, 251, 201-209.	2.2	13
56	Effect of titania particles preparation on the properties of Ni-TiO <sub>2</sub> electrodeposited composite coatings. Journal of Applied Electrochemistry, 2013, 43, 805-815.	1.5	19
57	A simple cost-effective and eco-friendly wet chemical process for the fabrication of superhydrophobic cotton fabrics. Applied Surface Science, 2013, 277, 302-309.	3.1	42
58	Properties of plasma sprayed La <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> coating fabricated from powder synthesized by a single-step solution combustion method. Surface and Coatings Technology, 2013, 219, 131-138.	2.2	31
59	Effect of silica and heat treatment on PS-SiO <sub>2</sub> wetting behavior. Surface Innovations, 2013, 1, 105-111.	1.4	2
60	The Corrosion Resistance of Nickel Electrocomposite Coating Containing BaFe <sub>12</sub> O <sub>19</sub> Particles. ISRN Corrosion, 2013, 2013, 1-6.	0.3	2
61	Comparative Studies on Tribocorrosion Behaviour of Plasma-Sprayed and Detonation Gun Coatings of Al <sub>2</sub> O <sub>3</sub> -13 %TiO <sub>2</sub> on Biomedical Alloy Ti-13Nb-13Zr and Gum Metal. , 2013, , 88-104.		2
62	A Comparative Study on the Synthesis and Properties of Yttria Stabilized Zirconia (YSZ) and Lanthana Doped YSZ Plasma Sprayed Thermal Barrier Coatings. , 2013, , .		0
63	Properties of phase separation method synthesized superhydrophobic polystyrene films. Applied Surface Science, 2012, 258, 3202-3207.	3.1	55
64	Superhydrophobic surfaces fabricated by surface modification of alumina particles. Applied Surface Science, 2012, 258, 10199-10204.	3.1	43
65	A single step solution combustion approach for preparing gadolinia doped ceria solid oxide fuel cell electrolyte material suitable for wet powder and plasma spraying processes. Journal of Power Sources, 2012, 214, 358-364.	4.0	26
66	Preparation and Properties of Water Repellent Polystyrene-TiO <sub>2</sub> Coatings. Transactions of the Indian Ceramic Society, 2012, 71, 25-30.	0.4	2
67	Effect of critical plasma spray parameters on the microstructure, microhardness and wear and corrosion resistance of plasma sprayed alumina coatings. Surface and Coatings Technology, 2012, 208, 92-100.	2.2	81
68	Effect of Feedstock Powders on the Microstructural and Electrical Characteristics of 8 mol% Yttria-Stabilized Zirconia Plasma-Sprayed Coatings. Journal of Thermal Spray Technology, 2012, 21, 1300-1308.	1.6	2
69	Electrodeposited nickel composite coating containing in-situ nickel impregnated alumina particles. Materials Letters, 2012, 66, 141-143.	1.3	4
70	CO oxidation by CeO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> -CeAlO <sub>3</sub> hybrid oxides. Catalysis Science and Technology, 2011, 1, 1683.	2.1	29
71	Phase transformation and wear studies of plasma sprayed yttria stabilized zirconia coatings containing various mol% of yttria. Materials Characterization, 2011, 62, 697-705.	1.9	41
72	Low temperature assisted chemical coprecipitation synthesis of 8YSZ plasma sprayable powder for solid oxide fuel cells. International Journal of Hydrogen Energy, 2011, 36, 14963-14970.	3.8	7

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73	Corrosion- and wear-resistant properties of Ni $\alpha$ -Al <sub>2</sub> O <sub>3</sub> composite coatings containing various forms of alumina. Journal of Applied Electrochemistry, 2011, 41, 461-468.	1.5	38
74	Photocatalytic Activity of Combustion Synthesized Nanocrystalline CeAlO <sub>3</sub> . Clean - Soil, Air, Water, 2011, 39, 259-264.	0.7	13
75	Studies on plasma sprayed bi-layered ceramic coating on bio-medical Ti $\alpha$ -13Nb $\alpha$ -13Zr alloy. Ceramics International, 2011, 37, 1333-1339.	2.3	41
76	Sliding wear behavior of plasma sprayed nanoceramic coatings for biomedical applications. Wear, 2011, 271, 934-941.	1.5	56
77	Optimization of the Properties of Electrodeposited Ni-YSZ Composites Using Taguchi Method and Regression Analysis. Portugaliae Electrochimica Acta, 2011, 29, 23-37.	0.4	13
78	Synthesis and characterization of Ni $\alpha$ -Al <sub>2</sub> O <sub>3</sub> composite coatings containing different forms of alumina. Journal of Applied Electrochemistry, 2010, 40, 2161-2169.	1.5	38
79	Effect of microstructure and surface roughness on the wettability of superhydrophobic sol $\alpha$ -gel nanocomposite coatings. Journal of Sol-Gel Science and Technology, 2010, 56, 278-286.	1.1	75
80	Synthesis of nanocrystalline CeAlO <sub>3</sub> by solution-combustion route. Materials Chemistry and Physics, 2010, 119, 485-489.	2.0	36
81	Solution combustion synthesis of CeO <sub>2</sub> $\alpha$ -CeAlO <sub>3</sub> nano-composites by mixture-of-fuels approach. Materials Research Bulletin, 2009, 44, 728-733.	2.7	43
82	Modified solution combustion route for the preparation of plasma sprayable ceria powder. Ceramics International, 2009, 35, 1353-1355.	2.3	3
83	Ni-based electrodeposited composite coating exhibiting improved microhardness, corrosion and wear resistance properties. Journal of Alloys and Compounds, 2009, 468, 546-552.	2.8	102
84	A study on the electrophoretic deposition of 8YSZ coating using mixture of acetone and ethanol solvents. Materials Chemistry and Physics, 2008, 111, 131-136.	2.0	48
85	Combustion synthesis and nanomaterials. Current Opinion in Solid State and Materials Science, 2008, 12, 44-50.	5.6	812
86	Studies on electrodeposited nickel $\alpha$ -yttria doped ceria composite coatings. Journal of Applied Electrochemistry, 2007, 37, 991-1000.	1.5	19
87	Synthesis and properties of electrodeposited Ni/ceria nanocomposite coatings. Surface and Coatings Technology, 2006, 200, 6871-6880.	2.2	127
88	Comparative study on the effect of current density on Ni and Ni $\alpha$ -Al <sub>2</sub> O <sub>3</sub> nanocomposite coatings produced by electrolytic deposition. Surface Engineering, 2005, 21, 209-214.	1.1	31
89	Mixture of fuels approach for the solution combustion synthesis of Al <sub>2</sub> O <sub>3</sub> $\alpha$ -ZrO <sub>2</sub> nanocomposite. Materials Research Bulletin, 2004, 39, 157-167.	2.7	101
90	Synthesis, characterisation and properties of Ni/PSZ and Ni/YSZ nanocomposites. Scripta Materialia, 2003, 48, 507-512.	2.6	44

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91	Combustion synthesis: an update. <i>Current Opinion in Solid State and Materials Science</i> , 2002, 6, 507-512.	5.6	765
92	Combustion synthesis and properties of Ce <sub>1-x</sub> Pr <sub>x</sub> O <sub>2</sub> red ceramic pigments. <i>Solid State Sciences</i> , 2001, 3, 387-392.	0.8	76
93	TiO <sub>2</sub> Nanocrystalline Pigmented Polyethylene Foils for Radiative Cooling Applications: Synthesis and Characterization. <i>Langmuir</i> , 2001, 17, 7118-7123.	1.6	76
94	Effect of high pressure and temperature on nanocrystalline Fe <sub>2</sub> O <sub>3</sub> and TiO <sub>2</sub> . <i>High Pressure Research</i> , 2001, 21, 79-92.	0.4	5
95	Studies on combustion synthesized LaMnO <sub>3</sub> -LaCoO <sub>3</sub> solid solutions. <i>Materials Research Bulletin</i> , 2000, 35, 289-296.	2.7	25
96	A Novel Method for the Preparation of Lead Selenide: Pulse Sonochemical Synthesis of Lead Selenide Nanoparticles. <i>Chemistry of Materials</i> , 2000, 12, 143-147.	3.2	112
97	Elongated Copper Nanoparticles Coated with a Zwitterionic Surfactant. <i>Journal of Physical Chemistry B</i> , 2000, 104, 893-897.	1.2	62
98	Nanosize rutile titania particle synthesis via a hydrothermal method without mineralizers. <i>Journal of Materials Chemistry</i> , 2000, 10, 2388-2391.	6.7	214
99	The Effect of the Preparation Condition of TiO <sub>2</sub> Colloids on Their Surface Structures. <i>Journal of Physical Chemistry B</i> , 2000, 104, 4130-4133.	1.2	186
100	Sonochemical Synthesis of SnO <sub>2</sub> Nanoparticles and Their Preliminary Study as Li Insertion Electrodes. <i>Chemistry of Materials</i> , 2000, 12, 2557-2566.	3.2	331
101	Studies on strontium substituted rare earth manganites. <i>Solid State Ionics</i> , 1999, 120, 275-280.	1.3	31
102	Studies on Cu/CeO <sub>2</sub> : A New NO Reduction Catalyst. <i>Journal of Catalysis</i> , 1999, 186, 36-44.	3.1	159
103	The sonochemical preparation of amorphous silver nanoparticles. <i>Journal of Materials Chemistry</i> , 1999, 9, 1333-1335.	6.7	228
104	Synthesis and properties of Ni-YSZ cermet: anode material for solid oxide fuel cells. <i>Solid State Ionics</i> , 1998, 111, 45-51.	1.3	159
105	Combustion synthesis and properties of nanostructured ceria-zirconia solid solutions. <i>Scripta Materialia</i> , 1998, 10, 955-964.	0.5	72
106	Combustion synthesis and properties of strontium substituted lanthanum manganites La <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3</sub> (0 ≤ x ≤ 0.3). <i>Journal of Materials Chemistry</i> , 1997, 7, 2499-2503.	6.7	81
107	Combustion synthesis. <i>Current Opinion in Solid State and Materials Science</i> , 1997, 2, 158-165.	5.6	447
108	Combustion Synthesis and Magnetic Properties of Nanosize Barium Hexaferrite. <i>Transactions of the Indian Ceramic Society</i> , 1996, 55, 147-150.	0.4	2