

Cheng-Xin Li

List of Publications by Year in descending order

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106
times ranked

2437
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#	ARTICLE	IF	CITATIONS
1	Oxidation behavior and interface diffusion of porous metal supported SOFCs with all plasma sprayed functional layers in air at 650oC. International Journal of Green Energy, 2022, 19, 818-826.	3.8	4
2	Recent progress of perovskite-based electrolyte materials for solid oxide fuel cells and performance optimizing strategies for energy storage applications. Materials Research Bulletin, 2022, 146, 111612.	5.2	74
3	Plasma-Sprayed (Bi2O3)0.705 (Er2O3)0.245 (WO3)0.05 Electrolyte for Intermediate-Temperature Solid Oxide Fuel Cells (IT-SOFCs). Journal of Thermal Spray Technology, 2022, 31, 297-306.	3.1	4
4	Recent Research Advances in Plasma Spraying of Bulk-Like Dense Metal Coatings with Metallurgically Bonded Lamellae. Journal of Thermal Spray Technology, 2022, 31, 5-27.	3.1	15
5	Sintering behavior of BaCe0.7Zr0.1Y0.2O3-Î electrolyte at 1150Â°C with the utilization of CuO and Bi2O3 as sintering aids and its electrical performance. International Journal of Hydrogen Energy, 2022, 47, 7403-7414.	7.1	39
6	The Bonding Formation during Thermal Spraying of Ceramic Coatings: A Review. Journal of Thermal Spray Technology, 2022, 31, 780-817.	3.1	20
7	Synthesis, Structure, Transport Properties, Electrochemical Stability Window, and Lithium Plating/Stripping of Mg and Nb Codoped Li₇La₃Zr₂O₁₂ Garnet-Type Solid Electrolytes. Journal of Physical Chemistry C, 2022, 126, 7828-7840.	3.1	10
8	Narrow and Thin Copper Linear Pattern Deposited by Vacuum Cold Spraying and Deposition Behavior Simulation. Journal of Thermal Spray Technology, 2021, 30, 571-583.	3.1	10
9	Enhanced Corrosion Resistance of a Double Ceramic Composite Coating Deposited by a Novel Method on Magnesium-Lithium Alloy (LA43M) Substrates. Journal of Thermal Spray Technology, 2021, 30, 680-693.	3.1	1
10	Plasma-Sprayed High-Performance (Bi2O3)0.75(Y2O3)0.25 Electrolyte for Intermediate-Temperature Solid Oxide Fuel Cells (IT-SOFCs). Journal of Thermal Spray Technology, 2021, 30, 196-204.	3.1	11
11	Highly active and novel A-site deficient symmetric electrode material (Sr0.3La0.7)1-x (Fe0.7Ti0.3)0.9Ni0.1O3-Î and its effect on electrochemical performance of SOFCs. International Journal of Hydrogen Energy, 2021, 46, 8778-8791.	7.1	25
12	Performance and Stability of Plasma-Sprayed 10-10cm2 Self-sealing Metal-Supported Solid Oxide Fuel Cells. Journal of Thermal Spray Technology, 2021, 30, 1059-1068.	3.1	8
13	Microstructural analysis of highly active cathode material La0.7Sr0.3Ti0.15Fe0.65Ni0.2O3-Î (LSTFN) by optimizing different processing parameters. Ceramics International, 2021, 47, 10893-10904.	4.8	15
14	Sintering behavior and electrochemical performance of A-site deficient SrxTi0.3Fe0.7O3-Î oxygen electrodes for solid oxide electrochemical cells. Ceramics International, 2021, 47, 25051-25058.	4.8	13
15	Formation of Intermetallic Compounds in a Cold-Sprayed Aluminum Coating on Magnesium Alloy Substrate after Friction Stir-Spot-Processing. Journal of Thermal Spray Technology, 2021, 30, 1464-1481.	3.1	3
16	Preparation of bulk-like La0.8Sr0.2Ga0.8Mg0.2O3-Î coatings for porous metal-supported solid oxide fuel cells via plasma spraying at increased particle temperatures. International Journal of Hydrogen Energy, 2021, 46, 32655-32664.	7.1	8
17	Enhancement of Corrosion Resistance and Tribological Properties of LA43M Mg Alloy by Cold-Sprayed Aluminum Coatings Reinforced with Alumina and Carbon Nanotubes. Journal of Thermal Spray Technology, 2021, 30, 668-679.	3.1	10
18	Effects of Powder Structure and Size on Gd2O3 Preferential Vaporization During Plasma Spraying of Gd2Zr2O7. Journal of Thermal Spray Technology, 2020, 29, 105-114.	3.1	5

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19	Optimization of Plasma-Sprayed Lanthanum Chromite Interconnector Through Powder Design and Critical Process Parameters Control. <i>Journal of Thermal Spray Technology</i> , 2020, 29, 212-222.	3.1	12
20	Development of ScSZ Electrolyte by Very Low Pressure Plasma Spraying for High-Performance Metal-Supported SOFCs. <i>Journal of Thermal Spray Technology</i> , 2020, 29, 223-231.	3.1	17
21	Self-Sealing Metal-Supported SOFC Fabricated by Plasma Spraying and Its Performance under Unbalanced Gas Pressure. <i>Journal of Thermal Spray Technology</i> , 2020, 29, 2001-2011.	3.1	10
22	Study on Deposition Behavior of Less Than 5 μ m YSZ Particles in VLPPS. <i>Journal of Thermal Spray Technology</i> , 2020, 29, 1708-1717.	3.1	3
23	Advanced oxygen-electrode-supported solid oxide electrochemical cells with Sr(Ti,Fe)O ₃ -based fuel electrodes for electricity generation and hydrogen production. <i>Journal of Materials Chemistry A</i> , 2020, 8, 25867-25879.	10.3	16
24	Fabrication of Metal Matrix Composites via High-Speed Particle Implantation. <i>Journal of Thermal Spray Technology</i> , 2020, 29, 1910-1925.	3.1	1
25	Performance evaluation of highly active and novel La _{0.7} Sr _{0.3} Ti _{0.1} Fe _{0.6} Ni _{0.3} O _{3-δ} material both as cathode and anode for intermediate-temperature symmetrical solid oxide fuel cell. <i>Journal of Power Sources</i> , 2020, 472, 228498.	7.8	54
26	Plasma spray—physical vapor deposition toward advanced thermal barrier coatings: a review. <i>Rare Metals</i> , 2020, 39, 479-497.	7.1	33
27	High stability SrTi _{1-x} Fe _x O ₃ electrodes for oxygen reduction and oxygen evolution reactions. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21447-21458.	10.3	32
28	Enhanced Electrochemical and Tribological Properties of AZ91D Magnesium Alloy via Cold Spraying of Aluminum Alloy. <i>Journal of Thermal Spray Technology</i> , 2019, 28, 1739-1748.	3.1	15
29	Numerical simulation of the flow characteristics inside a novel plasma spray torch. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 335203.	2.8	27
30	Plasma Spraying of Dense Ceramic Coating with Fully Bonded Lamellae Through Materials Design Based on the Critical Bonding Temperature Concept. <i>Journal of Thermal Spray Technology</i> , 2019, 28, 53-62.	3.1	15
31	Generation of Long Laminar Plasma Jets: Experimental and Numerical Analyses. <i>Plasma Chemistry and Plasma Processing</i> , 2019, 39, 377-394.	2.4	20
32	Cost effective perovskite solar cells with a high efficiency and open-circuit voltage based on a perovskite-friendly carbon electrode. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8271-8279.	10.3	57
33	Microstructure and Transparent Super-Hydrophobic Performance of Vacuum Cold-Sprayed Al ₂ O ₃ and SiO ₂ Aerogel Composite Coating. <i>Journal of Thermal Spray Technology</i> , 2018, 27, 471-482.	3.1	15
34	Novel Method of Aluminum to Copper Bonding by Cold Spray. <i>Journal of Thermal Spray Technology</i> , 2018, 27, 624-640.	3.1	23
35	Low-temperature SnO ₂ -modified TiO ₂ yields record efficiency for normal planar perovskite solar modules. <i>Journal of Materials Chemistry A</i> , 2018, 6, 10233-10242.	10.3	75
36	Improving Erosion Resistance of Plasma-Sprayed Ceramic Coatings by Elevating the Deposition Temperature Based on the Critical Bonding Temperature. <i>Journal of Thermal Spray Technology</i> , 2018, 27, 25-34.	3.1	5

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37	Effect of Post-spray Shot Peening Treatment on the Corrosion Behavior of NiCr-Mo Coating by Plasma Spraying of the Shell-“Core” Structured Powders. Journal of Thermal Spray Technology, 2018, 27, 232-242.	3.1	17
38	Cobalt-substituted $\text{SrTi}_{0.3}\text{Fe}_{0.7}\text{O}_{3\lambda}$: a stable high-performance oxygen electrode material for intermediate-temperature solid oxide electrochemical cells. Energy and Environmental Science, 2018, 11, 1870-1879.	30.8	93
39	Formation of Lamellar Pores for Splats via Interfacial or Sub-interfacial Delamination at Chemically Bonded Region. Journal of Thermal Spray Technology, 2017, 26, 315-326.	3.1	27
40	Sintering-induced delamination of thermal barrier coatings by gradient thermal cyclic test. Journal of the American Ceramic Society, 2017, 100, 1820-1830.	3.8	74
41	Material nucleation/growth competition tuning towards highly reproducible planar perovskite solar cells with efficiency exceeding 20%. Journal of Materials Chemistry A, 2017, 5, 6840-6848.	10.3	149
42	Thermally Sprayed Large Tubular Solid Oxide Fuel Cells and Its Stack: Geometry Optimization, Preparation, and Performance. Journal of Thermal Spray Technology, 2017, 26, 441-455.	3.1	16
43	Edge Effect on Crack Patterns in Thermally Sprayed Ceramic Splats. Journal of Thermal Spray Technology, 2017, 26, 302-314.	3.1	34
44	Super-Hydrophobic Surface Prepared by Lanthanide Oxide Ceramic Deposition Through PS-PVD Process. Journal of Thermal Spray Technology, 2017, 26, 398-408.	3.1	11
45	Large-area high-efficiency perovskite solar cells based on perovskite films dried by the multi-flow air knife method in air. Journal of Materials Chemistry A, 2017, 5, 1548-1557.	10.3	115
46	Effect of Oxidation on the Bonding Formation of Plasma-Sprayed Stainless Steel Splats onto Stainless Steel Substrate. Journal of Thermal Spray Technology, 2017, 26, 47-59.	3.1	14
47	Optimization of In-Situ Shot-Peening-Assisted Cold Spraying Parameters for Full Corrosion Protection of Mg Alloy by Fully Dense Al-Based Alloy Coating. Journal of Thermal Spray Technology, 2017, 26, 173-183.	3.1	65
48	Evaporation of Droplets in Plasma Spray-Physical Vapor Deposition Based on Energy Compensation Between Self-Cooling and Plasma Heat Transfer. Journal of Thermal Spray Technology, 2017, 26, 1641-1650.	3.1	24
49	The Correlation of the TBC Lifetimes in Burner Cycling Test with Thermal Gradient and Furnace Isothermal Cycling Test by TGO Effects. Journal of Thermal Spray Technology, 2017, 26, 378-387.	3.1	50
50	Suspension Plasma Sprayed $\text{Sr}_2\text{Fe}_{1.4}\text{Mo}_{0.6}\text{O}_6\lambda$ Electrodes for Solid Oxide Fuel Cells. Journal of Thermal Spray Technology, 2017, 26, 432-440.	3.1	2
51	The Microstructure Stability of Atmospheric Plasma-Sprayed MnCo_2O_4 Coating Under Dual-Atmosphere (H_2/Air) Exposure. Journal of Thermal Spray Technology, 2016, 25, 301-310.	3.1	5
52	$\text{La}_2\text{NiO}_4\lambda$ Infiltration of Plasma-Sprayed LSCF Coating for Cathode Performance Improvement. Journal of Thermal Spray Technology, 2016, 25, 392-400.	3.1	15
53	Formation of Cr_2O_3 Diffusion Barrier Between Cr-Contained Stainless Steel and Cold-Sprayed Ni Coatings at High Temperature. Journal of Thermal Spray Technology, 2016, 25, 526-534.	3.1	13
54	Thermally sprayed high-performance porous metal-supported solid oxide fuel cells with nanostructured $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3\lambda}$ cathodes. Journal of Materials Chemistry A, 2016, 4, 7461-7468.	10.3	25

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55	Non-destructive production of natural environment-adaptive superhydrophobic hierarchical ceramic surface on a steel substrate. <i>Micro and Nano Letters</i> , 2016, 11, 680-683.	1.3	2
56	Relationship Between Designed Three-Dimensional YSZ Electrolyte Surface Area and Performance of Solution-Precursor Plasma-Sprayed La _{0.8} Sr _{0.2} MnO ₃ Cathodes. <i>Journal of Thermal Spray Technology</i> , 2016, 25, 1692-1699.	3.1	2
57	Understanding the Formation of Limited Interlamellar Bonding in Plasma-Sprayed Ceramic Coatings Based on the Concept of Intrinsic Bonding Temperature. <i>Journal of Thermal Spray Technology</i> , 2016, 25, 1617-1630.	3.1	22
58	Hierarchical Formation of Intrasplat Cracks in Thermal Spray Ceramic Coatings. <i>Journal of Thermal Spray Technology</i> , 2016, 25, 959-970.	3.1	41
59	Microstructure of YSZ Coatings Deposited by PS-PVD Using 45kW Shrouded Plasma Torch. <i>Materials and Manufacturing Processes</i> , 2016, 31, 1183-1191.	4.7	18
60	Plasma-Sprayed Thermal Barrier Coatings with Enhanced Splat Bonding for CMAS and Corrosion Protection. <i>Journal of Thermal Spray Technology</i> , 2016, 25, 213-221.	3.1	31
61	Preparation of flexible perovskite solar cells by a gas pump drying method on a plastic substrate. <i>Journal of Materials Chemistry A</i> , 2016, 4, 3704-3710.	10.3	87
62	High Heat Insulating Thermal Barrier Coating Designed with Large Two-Dimensional Inter-lamellar Pores. <i>Journal of Thermal Spray Technology</i> , 2016, 25, 222-230.	3.1	12
63	WC-Co Composite Coating Deposited by Cold Spraying of a Core-Shell-Structured WC-Co Powder. <i>Journal of Thermal Spray Technology</i> , 2015, 24, 100.	3.1	13
64	Relationship Between Lamellar Structure and Elastic Modulus of Thermally Sprayed Thermal Barrier Coatings with Intra-splat Cracks. <i>Journal of Thermal Spray Technology</i> , 2015, 24, 1355-1367.	3.1	74
65	Mechanical property and wear performance dependence on processing condition for cold-sprayed WC-(nanoWC-Co). <i>Applied Surface Science</i> , 2015, 332, 80-88.	6.1	47
66	Ceramic Nano-particle/Substrate Interface Bonding Formation Derived from Dynamic Mechanical Force at Room Temperature: HRTEM Examination. <i>Journal of Thermal Spray Technology</i> , 2015, 24, 720-728.	3.1	7
67	Healing of the Interface Between Splashed Particles and Underlying Bulk Coating and Its Influence on Isothermal Oxidation Behavior of LPPS MCrAlY Bond Coat. <i>Journal of Thermal Spray Technology</i> , 2015, 24, 611-621.	3.1	29
68	A TEM Study of the Microstructure of Plasma-Sprayed YSZ Near Inter-splat Interfaces. <i>Journal of Thermal Spray Technology</i> , 2015, 24, 907-914.	3.1	16
69	Atmospheric plasma-sprayed La _{0.8} Sr _{0.2} Ga _{0.8} Mg _{0.2} O ₃ electrolyte membranes for intermediate-temperature solid oxide fuel cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 7535-7553.	10.3	50
70	Characterization of Plasma Jet in Plasma Spray-Physical Vapor Deposition of YSZ Using a 80kW Shrouded Torch Based on Optical Emission Spectroscopy. <i>Journal of Thermal Spray Technology</i> , 2015, 24, 1038-1045.	3.1	37
71	Morphology and Size Evolution of Interlamellar Two-Dimensional Pores in Plasma-Sprayed La ₂ Zr ₂ O ₇ Coatings During Thermal Exposure at 1300°C. <i>Journal of Thermal Spray Technology</i> , 2015, 24, 739-748.	3.1	48
72	Controlling grain size in columnar YSZ coating formation by droplet filtering assisted PS-PVD processing. <i>RSC Advances</i> , 2015, 5, 102126-102133.	3.6	11

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73	Fabrication of Porous Stainless Steel by Flame Spraying of Semimolten Particles. <i>Materials and Manufacturing Processes</i> , 2014, 29, 1253-1259.	4.7	10
74	Effect of TGO Thickness on Thermal Cyclic Lifetime and Failure Mode of Plasma-Sprayed TBCs. <i>Journal of the American Ceramic Society</i> , 2014, 97, 1226-1232.	3.8	157
75	Deposition Behavior of Semi-Molten Spray Particles During Flame Spraying of Porous Metal Alloy. <i>Journal of Thermal Spray Technology</i> , 2014, 23, 991-999.	3.1	20
76	Effect of Gas Pressure on Polarization of SOFC Cathode Prepared by Plasma Spray. <i>Journal of Thermal Spray Technology</i> , 2013, 22, 640-645.	3.1	1
77	Characterization of Nonmelted Particles and Molten Splats in Plasma-Sprayed Al ₂ O ₃ Coatings by a Combination of Scanning Electron Microscopy, X-ray Diffraction Analysis, and Confocal Raman Analysis. <i>Journal of Thermal Spray Technology</i> , 2013, 22, 131-137.	3.1	27
78	Microstructure and Properties of Porous Ni ₅₀ Cr ₅₀ -Al ₂ O ₃ Cermet Support for Solid Oxide Fuel Cells. <i>Journal of Thermal Spray Technology</i> , 2013, 22, 158-165.	3.1	6
79	Development of Particle Interface Bonding in Thermal Spray Coatings: A Review. <i>Journal of Thermal Spray Technology</i> , 2013, 22, 192-206.	3.1	86
80	Effect of Phase Transformation Mechanism on the Microstructure of Cold-sprayed Ni/Al-Al ₂ O ₃ Composite Coatings during Post-spray Annealing Treatment. <i>Journal of Thermal Spray Technology</i> , 2013, 22, 398-405.	3.1	12
81	Modeling Thermal Conductivity of Thermally Sprayed Coatings with Intrasplat Cracks. <i>Journal of Thermal Spray Technology</i> , 2013, 22, 1328-1336.	3.1	45
82	Microstructural and Mechanical Property Evolutions of Plasma-Sprayed YSZ Coating During High-Temperature Exposure: Comparison Study Between 8YSZ and 20YSZ. <i>Journal of Thermal Spray Technology</i> , 2013, 22, 1294-1302.	3.1	71
83	Evolution of Lamellar Interface Cracks During Isothermal Cyclic Test of Plasma-Sprayed 8YSZ Coating with a Columnar-Structured YSZ Interlayer. <i>Journal of Thermal Spray Technology</i> , 2013, 22, 1374-1382.	3.1	64
84	Improvement of Adhesion and Cohesion in Plasma-Sprayed Ceramic Coatings by Heterogeneous Modification of Nonbonded Lamellar Interface Using High Strength Adhesive Infiltration. <i>Journal of Thermal Spray Technology</i> , 2013, 22, 36-47.	3.1	39
85	Fabrication of Porous Molybdenum by Controlling Spray Particle State. <i>Journal of Thermal Spray Technology</i> , 2012, 21, 1032-1045.	3.1	12
86	Isothermal Oxidation Behavior of NiCoCrAlTaY Coating Deposited by High Velocity Air-Fuel Spraying. <i>Journal of Thermal Spray Technology</i> , 2012, 21, 391-399.	3.1	36
87	Formation of Pore Structure and Its Influence on the Mass Transport Property of Vacuum Cold Sprayed TiO ₂ Coatings Using Strengthened Nanostructured Powder. <i>Journal of Thermal Spray Technology</i> , 2012, 21, 505-513.	3.1	15
88	Effect of Dispersed TiC Content on the Microstructure and Thermal Expansion Behavior of Shrouded-Plasma-Sprayed FeAl/TiC Composite Coatings. <i>Journal of Thermal Spray Technology</i> , 2012, 21, 689-694.	3.1	14
89	A Novel Plasma-Sprayed Durable Thermal Barrier Coating with a Well-Bonded YSZ Interlayer Between Porous YSZ and Bond Coat. <i>Journal of Thermal Spray Technology</i> , 2012, 21, 383-390.	3.1	45
90	Influence of TGO Composition on the Thermal Shock Lifetime of Thermal Barrier Coatings with Cold-sprayed MCrAlY Bond Coat. <i>Journal of Thermal Spray Technology</i> , 2010, 19, 168-177.	3.1	98

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91	Microstructure and Electrochemical Behavior of a Structured Electrolyte/LSM-Cathode Interface Modified by Flame Spraying for Solid Oxide Fuel Cell Application. Journal of Thermal Spray Technology, 2010, 19, 311-316.	3.1	14
92	Development of a Ni/Al ₂ O ₃ Cermet-Supported Tubular Solid Oxide Fuel Cell Assembled with Different Functional Layers by Atmospheric Plasma-Spraying. Journal of Thermal Spray Technology, 2009, 18, 83-89.	3.1	18
93	High-Temperature Erosion of HVOF Sprayed Cr ₃ C ₂ -NiCr Coating and Mild Steel for Boiler Tubes. Journal of Thermal Spray Technology, 2008, 17, 782-787.	3.1	58
94	Thermal Failure of Nanostructured Thermal Barrier Coatings with Cold-Sprayed Nanostructured NiCrAlY Bond Coat. Journal of Thermal Spray Technology, 2008, 17, 838-845.	3.1	34
95	Formation of NiAl Intermetallic Compound by Cold Spraying of Ball-Milled Ni/Al Alloy Powder Through Postannealing Treatment. Journal of Thermal Spray Technology, 2008, 17, 715-720.	3.1	45
96	Influence of Powder Porous Structure on the Deposition Behavior of Cold-Sprayed WC-12Co Coatings. Journal of Thermal Spray Technology, 2008, 17, 742-749.	3.1	68
97	Influence of Microstructure on the Ionic Conductivity of Plasma-Sprayed Yttria-Stabilized Zirconia Deposits. Journal of the American Ceramic Society, 2008, 91, 3931-3936.	3.8	59
98	Microstructural Characterization of Cold-Sprayed Nanostructured FeAl Intermetallic Compound Coating and its Ball-Milled Feedstock Powders. Journal of Thermal Spray Technology, 2007, 16, 669-676.	3.1	55
99	Characterization of Nanostructured WC-Co Deposited by Cold Spraying. Journal of Thermal Spray Technology, 2007, 16, 1011-1020.	3.1	97
100	Influence of Silver Doping on Photocatalytic Activity of Liquid-Flame-Sprayed-Nanostructured TiO ₂ Coating. Journal of Thermal Spray Technology, 2007, 16, 881-885.	3.1	12
101	Examination of Substrate Surface Melting-Induced Splashing During Splat Formation in Plasma Spraying. Journal of Thermal Spray Technology, 2006, 15, 717-724.	3.1	33
102	Measurement and Numerical Simulation of Particle Velocity in Cold Spraying. Journal of Thermal Spray Technology, 2006, 15, 559-562.	3.1	26
103	Effect of Spray Particle Trajectory on the Measurement Signal of Particle Parameters Based on Thermal Radiation. Journal of Thermal Spray Technology, 2003, 12, 80-94.	3.1	21
104	Improving Adhesion Strength and Electrical Conductivity of Cold-Sprayed Al Deposit on Cu Substrate Through Friction-Stir-Processing. Journal of Thermal Spray Technology, 0, , 1.	3.1	0