Miguel A Laguna-Bercero

List of Publications by Year
in descending order

87	2,862	27	52
papers	citations	h-index (201674)	g-index (175258)

88	88	88	2564
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Laser processing of ceramic materials for electrochemical and high temperature energy applications. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2022, 61, S19-S39.	1.9	6
2	Solid-State Preparation of Metal and Metal Oxides Nanostructures and Their Application in Environmental Remediation. International Journal of Molecular Sciences, 2022, 23, 1093.	4.1	12
3	Advanced metal oxide infiltrated electrodes for boosting the performance of solid oxide cells. Journal of Materials Chemistry A, 2022, 10, 2541-2549.	10.3	12
4	Cation-driven electrical conductivity in Ta-doped orthorhombic zirconia ceramics. Ceramics International, 2021, 47, 7248-7252.	4.8	3
5	Functionalization of Gold Nanostars with Cationic Î2-Cyclodextrin-Based Polymer for Drug Co-Loading and SERS Monitoring. Pharmaceutics, 2021, 13, 261.	4.5	15
6	Solventless Preparation of Thoria and Its Inclusion into SiO₂ and TiO₂: A Luminescence and Photocatalysis Study. ACS Omega, 2021, 6, 9391-9400.	3.5	5
7	Insights of the formation mechanism of nanostructured titanium oxide polymorphs from different macromolecular metal-complex precursors. Heliyon, 2021, 7, e07684.	3.2	1
8	Role of Î2-CD Macromolecule Anchored to Î±-Fe₂O₃/TiO₂ on the Selectivity and Partial Oxidation of Guaiacol to Add-Value Products. ACS Sustainable Chemistry and Engineering, 2021, 9, 11427-11438.	6.7	4
9	Selective photocatalytic conversion of guaiacol using g-C3N4 metal free nanosheets photocatalyst to add-value products. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 421, 113513.	3.9	5
10	Reversible operation performance of microtubular solid oxide cells with a nickelate-based oxygen electrode. International Journal of Hydrogen Energy, 2020, 45, 5535-5542.	7.1	12
11	CO₂ and steam electrolysis using a microtubular solid oxide cell. JPhys Energy, 2020, 2, 014005.	5.3	4
12	Incorporation of Nanostructured ReO3 in Silica Matrix and Their Activity Toward Photodegradation of Blue Methylene. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 1726-1734.	3.7	8
13	Interfacial stability and ionic conductivity enhanced by dopant segregation in eutectic ceramics: the role of Gd segregation in doped CeO₂/CoO and CeO₂/NiO interfaces. Journal of Materials Chemistry A, 2020, 8, 2591-2601.	10.3	5
14	Incorporation of NiO into SiO2, TiO2, Al2O3, and Na4.2Ca2.8(Si6O18) Matrices: Medium Effect on the Optical Properties and Catalytic Degradation of Methylene Blue. Nanomaterials, 2020, 10, 2470.	4.1	8
15	Iridium nanostructured metal oxide, its inclusion in silica matrix and their activity toward photodegradation of methylene blue. Materials Chemistry and Physics, 2020, 252, 123276.	4.0	10
16	Development of Advanced Nickelate-Based Oxygen Electrodes for Solid Oxide Cells. ECS Transactions, 2019, 91, 2409-2416.	0.5	5
17	Performance Analysis of SOFC with Electrode-Electrolyte Interface Tailored by Laser Micro-Machining. ECS Transactions, 2019, 91, 2105-2114.	0.5	0
18	TiO2/SiO2 Composite for Efficient Protection of UVA and UVB Rays Through of a Solvent-Less Synthesis. Journal of Cluster Science, 2019, 30, 1511-1517.	3.3	12

#	Article	IF	Citations
19	Does grain size have an influence on intrinsic mechanical properties and conduction mechanism of near fully-dense boron carbide ceramics?. Journal of Alloys and Compounds, 2019, 795, 408-415.	5.5	9
20	Optimization of laser-patterned YSZ-LSM composite cathode-electrolyte interfaces for solid oxide fuel cells. Journal of the European Ceramic Society, 2019, 39, 3466-3474.	5.7	27
21	SOFC cathodic layers using wet powder spraying technique with self synthesized nanopowders. International Journal of Hydrogen Energy, 2019, 44, 7555-7563.	7.1	20
22	Laser Patterning of Electrode-Electrolyte Interfaces of Solid Oxide Fuel Cells (SOFCs). , 2019, , .		0
23	INCORPORATION OF AU AND AG NANOSTRUCTURES INSIDE SIO2. Journal of the Chilean Chemical Society, 2019, 64, 4502-4506.	1.2	2
24	The effect of pore-former morphology on the electrochemical performance of solid oxide fuel cells under combined fuel cell and electrolysis modes. Electrochimica Acta, 2018, 268, 195-201.	5.2	16
25	Controlled Ag-TiO 2 heterojunction obtained by combining physical vapor deposition and bifunctional surface modifiers. Journal of Physics and Chemistry of Solids, 2018, 119, 147-156.	4.0	24
26	Reversible operation of microtubular solid oxide cells using La0.6Sr0.4Co0.2Fe0.8O3-Î´-Ce0.9Gd0.1O2-Î´ oxygen electrodes. Journal of Power Sources, 2018, 378, 184-189.	7.8	46
27	Influence of Anode Functional Layers on Electrochemical Performance and Mechanical Strength in Microtubular Solid Oxide Fuel Cells Fabricated by Gel-Casting. ACS Applied Energy Materials, 2018, 1, 2024-2031.	5.1	17
28	Combustion synthesis and characterization of Ln1â^'xMxCr0.9Ni0.1O3 (Ln = La and/or Nd; M = Sr and/or) Tj ETQq0 0 0 rgBT /Overlock 1	4.8	5
29	Solid State Tuning of TiO₂ Morphology, Crystal Phase, and Size through Metal Macromolecular Complexes and Its Significance in the Photocatalytic Response. ACS Applied Energy Materials, 2018, 1, 3159-3170.	5.1	22
30	Characterization of laser-processed thin ceramic membranes for electrolyte-supported solid oxide fuel cells. International Journal of Hydrogen Energy, 2017, 42, 13939-13948.	7.1	27
31	Synthesis and magnetic properties of nanostructured metallic Co, Mn and Ni oxide materials obtained from solid-state metal-macromolecular complex precursors. RSC Advances, 2017, 7, 27729-27736.	3.6	21
32	Microtubular solid oxide fuel cells fabricated by gel-casting: the role of supporting microstructure on the mechanical properties. RSC Advances, 2017, 7, 17620-17628.	3.6	18
33	Effect of the synthesis conditions on the properties of La0.15Sm0.35Sr0.08Ba0.42FeO3â^'Î´ cathode material for SOFCs. Powder Technology, 2017, 322, 131-139.	4.2	2
34	Scalable synthetic method for SOFC compounds. Solid State Ionics, 2017, 313, 52-57.	2.7	12
35	Tailoring the electrode-electrolyte interface of Solid Oxide Fuel Cells (SOFC) by laser micro-patterning to improve their electrochemical performance. Journal of Power Sources, 2017, 360, 336-344.	7.8	53
36	Bimetallic Au//Ag Alloys Inside SiO2 Using a Solid-State Method. Journal of Cluster Science, 2017, 28, 2809-2815.	3.3	3

#	Article	IF	Citations
37	Laser machining of YSZ ceramics for solid oxide fuel cells (SOFC). , 2017, , .		0
38	The influence of the reducing conditions on the final microstructure and performance of nickel-yttria stabilized zirconia cermets. Electrochimica Acta, 2016, 221, 41-47.	5.2	9
39	Highly stable microtubular cells for portable solid oxide fuel cell applications. Electrochimica Acta, 2016, 222, 1622-1627.	5.2	18
40	Tailoring the Microstructure of a Solid Oxide Fuel Cell Anode Support by Calcination and Milling of YSZ. Scientific Reports, 2016, 6, 27359.	3.3	35
41	Effect of synthesis conditions on electrical and catalytical properties of perovskites with high value of A-site cation size mismatch. International Journal of Hydrogen Energy, 2016, 41, 19810-19818.	7.1	7
42	High-performance Niâ€“YSZ thin-walled microtubes for anode-supported solid oxide fuel cells obtained by powder extrusion moulding. RSC Advances, 2016, 6, 19007-19015.	3.6	19
43	Improved stability of reversible solid oxide cells with a nickelate-based oxygen electrode. Journal of Materials Chemistry A, 2016, 4, 1446-1453.	10.3	83
44	Electrochemical Performance of Nd_{1.95}NiO_{4+Î´} Cathode supported Microtubular Solid Oxide Fuel Cells. Fuel Cells, 2015, 15, 98-104.	2.4	9
45	Electrochemical performance of intermediate temperature micro-tubular solid oxide fuel cells using porous ceria barrier layers. Ceramics International, 2015, 41, 7651-7660.	4.8	22
46	Optimization of Niâ€“YSZ solid oxide fuel cell anodes by surface laser melting. Applied Surface Science, 2015, 335, 39-43.	6.1	11
47	Microtubular solid oxide fuel cells with lanthanum strontium manganite infiltrated cathodes. International Journal of Hydrogen Energy, 2015, 40, 5469-5474.	7.1	29
48	The effect of anode support on the electrochemical performance of microtubular solid oxide fuel cells fabricated by gel-casting. RSC Advances, 2015, 5, 39350-39357.	3.6	18
49	The Influence of Reduction Conditions on a Ni-YSZ SOFC Anode Microstructure and Evolution. ECS Transactions, 2015, 68, 1229-1235.	0.5	3
50	Fabrication and Microstructure of Self-Supporting Thin Ceramic Electrolytes Prepared by Laser Machining. ECS Transactions, 2015, 68, 2129-2139.	0.5	1
51	Orientation relationships and interfaces in directionally solidified eutectics for solid oxide fuel cell anodes. Journal of the European Ceramic Society, 2014, 34, 2123-2132.	5.7	18
52	Effects of using (La0.8Sr0.2)0.95Fe0.6Mn0.3Co0.1O3 (LSFMC), LaNi0.6Fe0.4O3âˆ'Î´ (LNF) and LaNi0.6Co0.4O3âˆ'Î´ (LNC) as contact materials on solid oxide fuel cells. Journal of Power Sources, 2014, 248, 1067-1076.	7.8	34
53	High performance of microtubular solid oxide fuel cells using Nd₂NiO_{4+Î´}-based composite cathodes. Journal of Materials Chemistry A, 2014, 2, 9764-9770.	10.3	55
54	LaNi0.6Co0 4O3âˆ' dip-coated on Feâ€“Cr mesh as a composite cathode contact material on intermediate solid oxide fuel cells. Journal of Power Sources, 2014, 269, 509-519.	7.8	19

#	Article	IF	Citations
55	Fabrication and Characterization of Graded Anodes for Anode-Supported Solid Oxide Fuel Cells by Tape Casting and Lamination. Electrocatalysis, 2014, 5, 273-278.	3.0	8
56	The effect of electrode infiltration on the performance of tubular solid oxide fuel cells under electrolysis and fuel cell modes. International Journal of Hydrogen Energy, 2014, 39, 8002-8008.	7.1	49
57	Design of industrially scalable microtubular solid oxide fuel cells based on an extruded support. International Journal of Hydrogen Energy, 2014, 39, 5470-5476.	7.1	49
58	LaNb0.84W0.16O4.08 as a novel electrolyte for high temperature fuel cell and solid oxide electrolysis applications. Solid State Ionics, 2014, 262, 298-302.	2.7	18
59	Fabrication Methods and Performance in Fuel Cell and Steam Electrolysis Operation Modes of Small Tubular Solid Oxide Fuel Cells: A Review. Frontiers in Energy Research, 2014, 2, .	2.3	43
60	Longâ€Term Stability Studies of Anodeâ€Supported Microtubular Solid Oxide Fuel Cells. Fuel Cells, 2013, 13, 1116-1122.	2.4	22
61	Modelling and Performance of a Microtubular YSZ-Based Anode Supported Solid Oxide Fuel Cell Stack and Power Module. Energy Procedia, 2012, 29, 166-176.	1.8	1
62	Redox-cycling studies of anode-supported microtubular solid oxide fuel cells. International Journal of Hydrogen Energy, 2012, 37, 7262-7270.	7.1	27
63	Recent advances in high temperature electrolysis using solid oxide fuel cells: A review. Journal of Power Sources, 2012, 203, 4-16.	7.8	825
64	Electrolyte degradation in anode supported microtubular yttria stabilized zirconia-based solid oxide steam electrolysis cells at high voltages of operation. Journal of Power Sources, 2011, 196, 8942-8947.	7.8	131
65	Micro-spectroscopic study of the degradation of scandia and ceria stabilized zirconia electrolytes in solid oxide electrolysis cells. International Journal of Hydrogen Energy, 2011, 36, 13051-13058.	7.1	39
66	Mechanical properties of highly textured porous Niâ€"YSZ and Coâ€"YSZ cermets produced from directionally solidified eutectics. Ceramics International, 2011, 37, 3123-3131.	4.8	8
67	Performance of La_{2â€"}_{<i>x</i>}Sr_{<i>x</i>}Co_{0.5}Ni_{0.5}O_{4Â±Î´} as an Oxygen Electrode for Solid Oxide Reversible Cells. Fuel Cells, 2011, 11, 102-107.	2.4	61
68	Performance and Aging of Microtubular YSZâ€based Solid Oxide Regenerative Fuel Cells. Fuel Cells, 2011, 11, 116-123.	2.4	60
69	Development of oxygen electrodes for reversible solid oxide fuel cells with scandia stabilized zirconia electrolytes. Solid State Ionics, 2011, 192, 501-504.	2.7	68
70	Self-Supporting Thin Yttria-Stabilised Zirconia Electrolytes for Solid Oxide Fuel Cells Prepared by Laser Machining. Journal of the Electrochemical Society, 2011, 158, B1193.	2.9	29
71	Self-Supported Thin Yttria-Stabilized Zirconia Electrolytes for Solid Oxide Fuel Cells Prepared by Laser Machining. ECS Transactions, 2011, 35, 1193-1202.	0.5	0
72	Investigation of Graded La[sub 2]NiO[sub 4+Î] Cathodes to Improve SOFC Electrochemical Performance. Journal of the Electrochemical Society, 2010, 157, B477.	2.9	46

#	ARTICLE	IF	CITATIONS
73	Steam Electrolysis Using a Microtubular Solid Oxide Fuel Cell. Journal of the Electrochemical Society, 2010, 157, B852.	2.9	45
74	Performance and Characterization of (La, Sr)MnO3/YSZ and La0.6Sr0.4Co0.2Fe0.8O3 Electrodes for Solid Oxide Electrolysis Cells. Chemistry of Materials, 2010, 22, 1134-1141.	6.7	92
75	High Efficiency Reversible Solid Oxide Microtubular Fuel Cells. ECS Transactions, 2009, 25, 865-872.	0.5	1
76	Performance of solid oxide electrolysis cells based on scandia stabilised zirconia. Journal of Power Sources, 2009, 192, 126-131.	7.8	105
77	Orientation relationship and interfaces in Ni and Co-YSZ cermets prepared from directionally solidified eutectics. Open Physics, 2009, 7, .	1.7	7
78	Investigations of Graded Cathodes to Improve SOFC Electrochemical Performances. ECS Transactions, 2009, 25, 2565-2571.	0.5	2
79	Crystallography and thermal stability of textured Co-YSZ cermets from eutectic precursors. Journal of the European Ceramic Society, 2008, 28, 2325-2329.	5.7	17
80	Raman spectroscopic study of cation disorder in poly- and single crystals of the nickel aluminate spinel. Journal of Physics Condensed Matter, 2007, 19, 186217.	1.8	88
81	YSZ-Induced Crystallographic Reorientation of Ni Particles in Ni?YSZ Cermets. Journal of the American Ceramic Society, 2007, 90, 2954-2960.	3.8	29
82	Structured porous Ni- and Co-YSZ cermets fabricated from directionally solidified eutectic composites. Journal of the European Ceramic Society, 2005, 25, 1455-1462.	5.7	43
83	Stability of Channeled Ni-YSZ Cermets Produced from Self-Assembled NiO-YSZ Directionally Solidified Eutectics. Journal of the American Ceramic Society, 2005, 88, 3215-3217.	3.8	37
84	Directionally solidified calcia stabilised zirconiaâ€"nickel oxide plates in anode supported solid oxide fuel cells. Journal of the European Ceramic Society, 2004, 24, 1349-1353.	5.7	24
85	YSZ Thin Films Deposited on NiO-CSZ Anodes by Pulsed Injection MOCVD for Intermediate Temperature-SOFC Applications. Chemical Vapor Deposition, 2004, 10, 249-252.	1.3	10
86	New supraicosahedral metallacarboranes. The synthesis and molecular structures of 4-dppe-4,1,6-closo-NiC2B10H12 and [4-(Î·-C3H5)-4-(CO)2-4,1,6-closo-MoC2B10H12]âˆ'. Inorganica Chimica Acta, 2003, 347, 161-167.	2.4	32
87	Ni and Co-ZrO2 Composites Produced by Laser Zone Melting. Ceramic Engineering and Science Proceedings, 0, , 181-186.	0.1	1