Alex Morata

List of Publications by Year in descending order

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101543 138484 3,865 131 36 58 citations h-index g-index papers 136 136 136 4064 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	The production of ethylphenols in wine by yeasts of the genera Brettanomyces and Dekkera: A review. Food Chemistry, 2007, 102, 10-21.	8.2	278
2	New trends in yeast selection for winemaking. Trends in Food Science and Technology, 2012, 23, 39-50.	15.1	164
3	GdBaCo2O5+x layered perovskite as an intermediate temperature solid oxide fuel cell cathode. Journal of Power Sources, 2007, 174, 255-263.	7.8	135
4	Pyruvic Acid and Acetaldehyde Production by Different Strains of Saccharomyces cerevisiae:Â Relationship with Vitisin A and B Formation in Red Wines. Journal of Agricultural and Food Chemistry, 2003, 51, 7402-7409.	5.2	120
5	Effects of pH, temperature and SO2 on the formation of pyranoanthocyanins during red wine fermentation with two species of Saccharomyces. International Journal of Food Microbiology, 2006, 106, 123-129.	4.7	118
6	Stability, chemical compatibility and electrochemical performance of GdBaCo2O5+x layered perovskite as a cathode for intermediate temperature solid oxide fuel cells. Solid State Ionics, 2008, 179, 2372-2378.	2.7	112
7	Influence of sequential fermentation with Torulaspora delbrueckii and Saccharomyces cerevisiae on wine quality. LWT - Food Science and Technology, 2014, 59, 915-922.	5.2	101
8	Formation of vinylphenolic pyranoanthocyanins by Saccharomyces cerevisiae and Pichia guillermondii in red wines produced following different fermentation strategies. Food Chemistry, 2011, 124, 15-23.	8.2	99
9	Formation of the highly stable pyranoanthocyanins (vitisins A and B) in red wines by the addition of pyruvic acid and acetaldehyde. Food Chemistry, 2007, 100, 1144-1152.	8.2	93
10	Formation of pyranoanthocyanins by Schizosaccharomyces pombe during the fermentation of red must. International Journal of Food Microbiology, 2012, 159, 47-53.	4.7	93
11	New genera of yeasts for over-lees aging of red wine. Food Chemistry, 2009, 112, 432-441.	8.2	89
12	Degradation mechanism of La 0.6 Sr 0.4 Co 0.2 Fe 0.8 O $3-\hat{l}'/Gd$ 0.1 Ce 0.9 O $2-\hat{l}'$ composite electrode operated under solid oxide electrolysis and fuel cell conditions. Electrochimica Acta, 2017, 241, 459-476.	5.2	87
13	Full ceramic micro solid oxide fuel cells: towards more reliable MEMS power generators operating at high temperatures. Energy and Environmental Science, 2014, 7, 3617-3629.	30.8	76
14	Engineering Mixed Ionic Electronic Conduction in La _{0.8} Sr _{0.2} MnO _{3+<i>Î</i>} Nanostructures through Fast Grain Boundary Oxygen Diffusivity. Advanced Energy Materials, 2015, 5, 1500377.	19.5	75
15	Tailoring Multilayered BiVO ₄ Photoanodes by Pulsed Laser Deposition for Water Splitting. ACS Applied Materials & Samp; Interfaces, 2016, 8, 4076-4085.	8.0	71
16	SiGe nanowire arrays based thermoelectric microgenerator. Nano Energy, 2019, 57, 492-499.	16.0	71
17	Effect of Saccharomyces strains on the quality of red wines aged on lees. Food Chemistry, 2013, 139, 1044-1051.	8.2	63
18	3D printing the next generation of enhanced solid oxide fuel and electrolysis cells. Journal of Materials Chemistry A, 2020, 8, 16926-16932.	10.3	63

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19	Use of Schizosaccharomyces strains for wine fermentationâ€"Effect on the wine composition and food safety. International Journal of Food Microbiology, 2016, 232, 63-72.	4.7	62
20	Large-area and adaptable electrospun silicon-based thermoelectric nanomaterials with high energy conversion efficiencies. Nature Communications, 2018, 9, 4759.	12.8	62
21	Short-channel radiation effect in 60 MeV proton irradiated $0.13\hat{l}$ /4m CMOS transistors. IEEE Transactions on Nuclear Science, 2003, 50, 2426-2432.	2.0	61
22	Performance and long term degradation of 7ÂW micro-tubular solid oxide fuel cells for portable applications. Journal of Power Sources, 2015, 285, 439-448.	7.8	59
23	Co-electrolysis of steam and CO ₂ in full-ceramic symmetrical SOECs: a strategy for avoiding the use of hydrogen as a safe gas. Faraday Discussions, 2015, 182, 241-255.	3.2	57
24	Physiological features of Schizosaccharomyces pombe of interest in making of white wines. European Food Research and Technology, 2013, 236, 29-36.	3.3	55
25	Optimization of surface charge transfer processes on rutile TiO2 nanorods photoanodes for water splitting. International Journal of Hydrogen Energy, 2013, 38, 2979-2985.	7.1	50
26	Ultrafast Dischargeable LiMn ₂ O ₄ Thin-Film Electrodes with Pseudocapacitive Properties for Microbatteries. ACS Applied Materials & Samp; Interfaces, 2017, 9, 5295-5301.	8.0	50
27	Multi-scale analysis of the diffusion barrier layer of gadolinia-doped ceria in a solid oxide fuel cell operated in a stack for 3000Âh. Journal of Power Sources, 2017, 344, 141-151.	7.8	50
28	Highly electrocatalytic flexible nanofiber for improved vanadium-based redox flow battery cathode electrodes. RSC Advances, 2013, 3, 12056.	3.6	47
29	Oenological versatility of Schizosaccharomyces spp European Food Research and Technology, 2012, 235, 375-383.	3.3	45
30	A Molecular Dynamics Study on the Oxygen Diffusion in Doped Fluorites: The Effect of the Dopant Distribution. Fuel Cells, 2011, 11, 26-37.	2.4	42
31	La2â^'Sr CoO4â^' (xÂ=Â0.9, 1.0, 1.1) Ruddlesden-Popper-type layered cobaltites as cathode materials for IT-SOFC application. International Journal of Hydrogen Energy, 2013, 38, 3064-3072.	7.1	42
32	Porous La0.6Sr0.4CoO3â^Î^thin film cathodes for large area micro solid oxide fuel cell power generators. Journal of Power Sources, 2014, 248, 1042-1049.	7.8	42
33	High-temperature anion and proton conduction in RE3NbO7 (RE = La, Gd, Y, Yb, Lu) compounds. Journal of the European Ceramic Society, 2015, 35, 3051-3061.	5.7	41
34	North Atlantic teleconnection patterns of low-frequency variability and their links with springtime precipitation in the western Mediterranean. International Journal of Climatology, 2004, 24, 213-230.	3.5	39
35	Mesoporous ceramic oxides as humidity sensors: A case study for gadolinium-doped ceria. Sensors and Actuators B: Chemical, 2015, 216, 41-48.	7.8	38
36	Enhanced Performance of Gadolinia-Doped Ceria Diffusion Barrier Layers Fabricated by Pulsed Laser Deposition for Large-Area Solid Oxide Fuel Cells. ACS Applied Energy Materials, 2018, 1, 1955-1964.	5.1	38

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37	Towards a full integration of vertically aligned silicon nanowires in MEMS using silane as a precursor. Nanotechnology, 2015, 26, 195302.	2.6	37
38	A high-entropy manganite in an ordered nanocomposite for long-term application in solid oxide cells. Nature Communications, 2021, 12, 2660.	12.8	37
39	Smart integration of silicon nanowire arrays in all-silicon thermoelectric micro-nanogenerators. Semiconductor Science and Technology, 2016, 31, 084001.	2.0	35
40	Self-similarity patterns of precipitation in the Iberian Peninsula. Theoretical and Applied Climatology, 2006, 85, 41-59.	2.8	34
41	Conductivity Dependence on Oxygen Partial Pressure and Oxide-Ion Transport Numbers Determination for La[sub 2]Mo[sub 2]O[sub 9]. Electrochemical and Solid-State Letters, 2004, 7, A373.	2.2	32
42	High-temperature long-term stable ordered mesoporous Ni–CGO as an anode for solid oxide fuel cells. Journal of Materials Chemistry A, 2013, 1, 4531.	10.3	31
43	Silicon-based nanostructures for integrated thermoelectric generators. Journal Physics D: Applied Physics, 2018, 51, 423001.	2.8	31
44	Coupled modes of large-scale climatic variables and regional precipitation in the western Mediterranean in autumn. Climate Dynamics, 2004, 22, 307-323.	3.8	29
45	Infiltrated mesoporous oxygen electrodes for high temperature co-electrolysis of H ₂ 0 and CO ₂ in solid oxide electrolysis cells. Journal of Materials Chemistry A, 2018, 6, 9699-9707.	10.3	29
46	Engineering Transport in Manganites by Tuning Local Nonstoichiometry in Grain Boundaries. Advanced Materials, 2019, 31, e1805360.	21.0	29
47	Characterization of the autumn Iberian precipitation from longâ€ŧerm datasets: comparison between observed and hindcasted data. International Journal of Climatology, 2009, 29, 527-541.	3.5	28
48	Enhanced thermoelectric figure of merit of individual Si nanowires with ultralow contact resistances. Nano Energy, 2020, 67, 104191.	16.0	28
49	High Specific Power Dual-Metal-Ion Rechargeable Microbatteries Based on LiMn ₂ O ₄ and Zinc for Miniaturized Applications. ACS Applied Materials & Interfaces, 2017, 9, 32713-32719.	8.0	27
50	All-silicon thermoelectric micro/nanogenerator including a heat exchanger for harvesting applications. Journal of Power Sources, 2019, 413, 125-133.	7.8	27
51	Unveiling the Outstanding Oxygen Mass Transport Properties of Mn-Rich Perovskites in Grain Boundary-Dominated La _{0.8} Sr _{0.2} (Mn _{1–<i>x</i>} Co _{<i>x</i>} (i>x) _{0.85} O _{Nanostructures. Chemistry of Materials. 2018. 30. 5621-5629.}	sub>3±δ	
52	An objectively selected case study of a heavy rain event in the Mediterranean Basin: A diagnosis using numerical simulation. Atmospheric Research, 2006, 81, 187-205.	4.1	24
53	Engineering mass transport properties in oxide ionic and mixed ionic-electronic thin film ceramic conductors for energy applications. Journal of the European Ceramic Society, 2019, 39, 101-114.	5.7	24
54	Transitioning from Si to SiGe Nanowires as Thermoelectric Material in Silicon-Based Microgenerators. Nanomaterials, 2021, 11, 517.	4.1	24

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55	High performance LATP thin film electrolytes for all-solid-state microbattery applications. Journal of Materials Chemistry A, 2021, 9, 17760-17769.	10.3	23
56	Self-discharge in Li-ion aqueous batteries: A case study on LiMn2O4. Electrochimica Acta, 2021, 373, 137847.	5.2	22
57	High-surface-area ordered mesoporous oxides for continuous operation in high temperature energy applications. Journal of Materials Chemistry A, 2014, 2, 3134.	10.3	21
58	New insights into the origin of the oxide ionic diffusion change in strained lattices of yttria stabilized zirconia. Computational Materials Science, 2015, 103, 206-215.	3.0	18
59	A Durable Electrode for Solid Oxide Cells: Mesoporous Ce0.8Sm0.2O1.9 Scaffolds Infiltrated with a Sm0.5Sr0.5CoO3-δ Catalyst. Electrochimica Acta, 2017, 235, 646-653.	5.2	18
60	An innovative multi-layer pulsed laser deposition approach for LiMn2O4 thin film cathodes. Thin Solid Films, 2018, 648, 108-112.	1.8	18
61	Springtime coupled modes of regional wind in the Iberian Peninsula and largeâ€scale variability patterns. International Journal of Climatology, 2011, 31, 880-895.	3.5	17
62	5ÂkW SOFC stack via 3D printing manufacturing: An evaluation of potential environmental benefits. Applied Energy, 2021, 291, 116803.	10.1	16
63	Is it possible to design a portable power generator based on micro-solid oxide fuel cells? A finite volume analysis. Journal of Power Sources, 2015, 293, 264-273.	7.8	14
64	Semiconductor Nanowires for Thermoelectric Generation. Semiconductors and Semimetals, 2018, 98, 321-407.	0.7	14
65	Synthesis and characterization of robust, mesoporous electrodes for solid oxide fuel cells. Journal of Materials Chemistry A, 2016, 4, 7650-7657.	10.3	13
66	Iberian autumnal precipitation characterization through observed, simulated and reanalysed data. Advances in Geosciences, 0, 16, 49-54.	12.0	13
67	Springtime connections between the large-scale sea-level pressure field and gust wind speed over lberia and the Balearics. Natural Hazards and Earth System Sciences, 2011, 11, 191-203.	3.6	12
68	Bottom-up Silicon Nanowire Arrays for Thermoelectric Harvesting. Materials Today: Proceedings, 2015, 2, 675-679.	1.8	12
69	Towards a high fuel utilization and low degradation of micro-tubular solid oxide fuel cells. International Journal of Hydrogen Energy, 2017, 42, 13889-13901.	7.1	12
70	Solid Oxide Cell Degradation Operated in Fuel Cell and Electrolysis Modes: A Comparative Study on Ni Agglomeration and LSCF Destabilization. ECS Transactions, 2017, 78, 3167-3177.	0.5	12
71	Dynamic impedance spectroscopy of LiMn2O4 thin films made by multi-layer pulsed laser deposition. Electrochimica Acta, 2020, 331, 135385.	5.2	12
72	Wintertime connections between extreme wind patterns in Spain and large-scale geopotential height field. Atmospheric Research, 2013, 122, 213-228.	4.1	11

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73	Standalone ethanol micro-reformer integrated on silicon technology for onboard production of hydrogen-rich gas. Lab on A Chip, 2016, 16, 2900-2910.	6.0	11
74	Insights into the enhancement of oxygen mass transport properties of strontium-doped lanthanum manganite interface-dominated thin films. Solid State Ionics, 2017, 299, 70-77.	2.7	11
75	Anthocyanins as Natural Pigments in Beverages. , 2019, , 383-428.		11
76	Direct Measurement of Oxygen Mass Transport at the Nanoscale. Advanced Materials, 2021, 33, e2105622.	21.0	11
77	Effect of grain size distribution on the grain boundary electrical response of 2D and 3D polycrystals. Solid State Ionics, 2006, 177, 3117-3121.	2.7	10
78	Probabilistic and deterministic results of the ANPAF analog model for Spanish wind field estimations. Atmospheric Research, 2012, 108, 39-56.	4.1	10
79	Degradation Studies and Sr Diffusion Behaviour in Anode Supported Cell after 3,000 h SOFC Short Stack Testing. ECS Transactions, 2015, 68, 1803-1813.	0.5	10
80	Thermal Test of an Improved Platform for Silicon Nanowire-Based Thermoelectric Micro-generators. Journal of Electronic Materials, 2016, 45, 1689-1694.	2.2	10
81	Operando probing of Li-insertion into LiMn ₂ O ₄ cathodes by spectroscopic ellipsometry. Journal of Materials Chemistry A, 2020, 8, 11538-11544.	10.3	10
82	Thermal conductivity of individual Si and SiGe epitaxially integrated NWs by scanning thermal microscopy. Nanoscale, 2021, 13, 7252-7265.	5.6	10
83	Grain-boundary resistivity versus grain size distribution in three-dimensional polycrystals. Applied Physics Letters, 2006, 88, 141920.	3.3	9
84	Development and characterisation of a screen-printed mixed potential gas sensor. Sensors and Actuators B: Chemical, 2007, 130, 561-561.	7.8	9
85	Power Response of a Planar Thermoelectric Microgenerator Based on Silicon Nanowires at Different Convection Regimes. Energy Harvesting and Systems, 2016, 3, 335-342.	2.7	9
86	Highly Sensitive Selfâ€Powered H ₂ Sensor Based on Nanostructured Thermoelectric Silicon Fabrics. Advanced Materials Technologies, 2021, 6, .	5.8	9
87	On the thermoelectric properties of Nb-doped SrTiO ₃ epitaxial thin films. Physical Chemistry Chemical Physics, 2022, 24, 3741-3748.	2.8	9
88	Evaluation of an ensemble precipitation prediction system over the Western Mediterranean area. Atmospheric Research, 2010, 98, 163-175.	4.1	8
89	Unraveling bulk and grain boundary electrical properties in La0.8Sr0.2Mn1 \hat{a} 'yO3 \hat{A} ± \hat{I} ' thin films. APL Materials, 2019, 7, 013205.	5.1	8
90	Reversible fuel electrode supported solid oxide cells fabricated by aqueous multilayered tape casting. JPhys Energy, 2021, 3, 024002.	5.3	8

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91	Tuning the Thermoelectric Properties of Boronâ€Doped Silicon Nanowires Integrated into a Microâ€Harvester. Advanced Materials Technologies, 2022, 7, .	5.8	8
92	Synthesis of mesoporous nanocomposites for their application in solid oxide electrolysers cells: microstructural and electrochemical characterization. Faraday Discussions, 2015, 182, 423-435.	3.2	7
93	Thin film oxide-ion conducting electrolyte for near room temperature applications. Journal of Materials Chemistry A, 2019, 7, 25772-25778.	10.3	7
94	Self-Supported Solid Oxide Fuel Cells by Multimaterial 3D Printing. ECS Transactions, 2021, 103, 59-66.	0.5	6
95	Nanoscaled LiMn ₂ O ₄ for Extended Cycling Stability in the 3 V Plateau. ACS Applied Materials & Description (Section 2018) Applied Materials & Des	8.0	6
96	Mesoporous NiO-CGO Obtained by Hard Template as High Surface Area Anode for IT-SOFC. ECS Transactions, 2011, 35, 1647-1654.	0.5	5
97	Understanding longitudinal degradation mechanisms of large-area micro-tubular solid oxide fuel cells. Electrochimica Acta, 2018, 265, 232-243.	5. 2	5
98	Visualizing local fast ionic conduction pathways in nanocrystalline lanthanum manganite by isotope exchange-atom probe tomography. Journal of Materials Chemistry A, 2022, 10, 2228-2234.	10.3	4
99	lon Intercalation in Lanthanum Strontium Ferrite for Aqueous Electrochemical Energy Storage Devices. ACS Applied Materials & amp; Interfaces, 2022, 14, 18486-18497.	8.0	4
100	Novel design and preliminary results of YSZ electrolyte-based amperometric oxygen sensors. , 0, , .		3
101	Pushing the Study of Point Defects in Thin Film Ferrites to Low Temperatures Using In Situ Ellipsometry. Advanced Materials Interfaces, 2021, 8, 2001881.	3.7	3
102	Managing Heat Transfer Issues in Thermoelectric Microgenerators., 0, , .		3
103	Verification of a short-range ensemble precipitation prediction system over Iberia. Advances in Geosciences, 0, 25, 55-63.	12.0	3
104	Spectroscopic Ellipsometry for Operando Monitoring of (De)Lithiation-Induced Phenomena on LiMn ₂ O ₄ and LiNi _{0.5} Mn _{1.5} O ₄ Electrodes. Journal of the Electrochemical Society, 2022, 169, 040501.	2.9	3
105	Optimized screen-printing and SEM-FIB characterization of YSZ thin films for Solid Oxide Fuel Cells and gas sensors devices. Materials Research Society Symposia Proceedings, 2004, 822, S6.11.1.	0.1	2
106	Improved thermal isolation of silicon suspended platforms for an all-silicon thermoelectric microgenerator based on large scale integration of Si nanowires as thermoelectric material. Journal of Physics: Conference Series, 2015, 660, 012113.	0.4	2
107	Interdigitated design of a thermoelectric microgenerator based on silicon nanowire arrays. Proceedings of SPIE, 2015, , .	0.8	2
108	Thin Films: Engineering Mixed Ionic Electronic Conduction in La _{0.8} Sr _{0.2} MnO _{3+<i>Î</i>Boundary Oxygen Diffusivity (Adv. Energy Mater. 11/2015). Advanced Energy Materials, 2015, 5, .}	19.5	2

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109	Grain Boundary Engineering to Improve Ionic Conduction in Thin Films for Micro-SOFCs. ECS Transactions, 2015, 69, 11-16.	0.5	2
110	Optimization of power output in planar thermoelectric microgenerators based on Si nanowires. Journal of Physics: Conference Series, 2016, 773, 012026.	0.4	2
111	Grain Boundaries: Engineering Transport in Manganites by Tuning Local Nonstoichiometry in Grain Boundaries (Adv. Mater. 4/2019). Advanced Materials, 2019, 31, 1970026.	21.0	2
112	Interstitial lithium doping in SrTiO ₃ . AIP Advances, 2021, 11, 075029.	1.3	2
113	Safe extended-range cycling of Li4Ti5O12-based anodes for ultra-high capacity thin-film batteries. Materials Today Energy, 2022, 25, 100979.	4.7	2
114	Fully Integrated Lambda Sensor Based on Micromachined Platforms and Ytria Stabilized Zirconia Thin Membranes for Oxygen Measurement. Procedia Engineering, 2014, 87, 927-930.	1.2	1
115	Improved micronanogenerators based on silicon compatible materials and processing. Journal of Physics: Conference Series, 2019, 1407, 012097.	0.4	1
116	Improved design of an all-Si based thermoelectric microgenerator., 2021,,.		1
117	Additive Manufacturing of Large Area SOC with Advanced Features. ECS Transactions, 2021, 103, 149-157.	0.5	1
118	Improved thermal and electrical design for an all-Si thermoelectric micropower source. Proceedings of SPIE, $2017, \ldots$	0.8	1
119	Conductivity dependence on oxygen partial pressure and transport number measurements of La2Mo2O9. Materials Research Society Symposia Proceedings, 2004, 822, S6.5.1.	0.1	0
120	Organization of oxygen vacancies in low-temperature La/sub 2/Mo/sub 2/O/sub 9/ ion conductor., 0,,.		0
121	Simulation of the influence of particle size distribution and grain boundary resistance on the electrical response of 2D polycrystals. , 0, , .		0
122	A Versatile and Lowâ€Toxicity Route for the Production of Electroceramic Oxide Nanopowders. European Journal of Inorganic Chemistry, 2008, 2008, 954-960.	2.0	0
123	Integrating micro and nano: A route for all-silicon thermoelectricity?., 2013,,.		0
124	Fabrication and characterization of a fuel flexible micro-reformer fully integrated in silicon for micro-solid oxide fuel cell applications. Proceedings of SPIE, 2015, , .	0.8	0
125	Materials development: general discussion. Faraday Discussions, 2015, 182, 307-328.	3.2	0
126	SiNERGY, a project on energy harvesting and microstorage empowered by Silicon technologies. , 2015, , .		0

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#	Article	lF	CITATIONS
127	From materials to devices: Bottom-up integration of nanomaterials onto silicon microstructures for thermoelectric and piezoelectric applications., 2017,,.		0
128	Defect Chemistry: Pushing the Study of Point Defects in Thin Film Ferrites to Low Temperatures Using In Situ Ellipsometry (Adv. Mater. Interfaces 6/2021). Advanced Materials Interfaces, 2021, 8, 2170031.	3.7	0
129	Thin Film Barrier Layers with Increased Performance and Reduced Long-Term Degradation in SOFCs. ECS Transactions, 2021, 103, 1177-1185.	0.5	0
130	Nanoscale tracking of oxygen diffusion pathways in oxide ion conductors. Microscopy and Microanalysis, 2021, 27, 180-181.	0.4	0
131	Harvesting performance of a planar thermoelectric microgenerator with a compact design. , 2021, , .		0