Alex Morata

List of Publications by Year
in descending order

131	3,865	101543	138484
papers	citations	36 h-index	58 g-index

136	136	136	4064
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	On the thermoelectric properties of Nb-doped SrTiO₃ epitaxial thin films. Physical Chemistry Chemical Physics, 2022, 24, 3741-3748.	2.8	9
3	Spectroscopic Ellipsometry for Operando Monitoring of (De)Lithiation-Induced Phenomena on LiMn₂O₄ and LiNi_{0.5}Mn_{1.5}O₄ Electrodes. Journal of the Electrochemical Society, 2022, 169, 040501.	2.9	3
4	Safe extended-range cycling of Li4Ti5O12-based anodes for ultra-high capacity thin-film batteries. Materials Today Energy, 2022, 25, 100979.	4.7	2
5	Ion Intercalation in Lanthanum Strontium Ferrite for Aqueous Electrochemical Energy Storage Devices. ACS Applied Materials & Interfaces, 2022, 14, 18486-18497.	8.0	4
6	Tuning the Thermoelectric Properties of Boronâ€Doped Silicon Nanowires Integrated into a Microâ€Harvester. Advanced Materials Technologies, 2022, 7, .	5.8	8
7	Nanoscaled LiMn₂O₄ for Extended Cycling Stability in the 3 V Plateau. ACS Applied Materials & Interfaces, 2022, 14, 33438-33446.	8.0	6
8	Highly Sensitive Selfâ€Powered H₂ Sensor Based on Nanostructured Thermoelectric Silicon Fabrics. Advanced Materials Technologies, 2021, 6, .	5.8	9
9	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
10	High performance LATP thin film electrolytes for all-solid-state microbattery applications. Journal of Materials Chemistry A, 2021, 9, 17760-17769.	10.3	23
11	Reversible fuel electrode supported solid oxide cells fabricated by aqueous multilayered tape casting. JPhys Energy, 2021, 3, 024002.	5.3	8
12	Transitioning from Si to SiGe Nanowires as Thermoelectric Material in Silicon-Based Microgenerators. Nanomaterials, 2021, 11, 517.	4.1	24
13	Self-discharge in Li-ion aqueous batteries: A case study on LiMn2O4. Electrochimica Acta, 2021, 373, 137847.	5.2	22
14	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
15	Improved design of an all-Si based thermoelectric microgenerator. , 2021, , .		1
16	A high-entropy manganite in an ordered nanocomposite for long-term application in solid oxide cells. Nature Communications, 2021, 12, 2660.	12.8	37
17	5ÂkW SOFC stack via 3D printing manufacturing: An evaluation of potential environmental benefits. Applied Energy, 2021, 291, 116803.	10.1	16
18	Thin Film Barrier Layers with Increased Performance and Reduced Long-Term Degradation in SOFCs. ECS Transactions, 2021, 103, 1177-1185.	0.5	0

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19	Additive Manufacturing of Large Area SOC with Advanced Features. ECS Transactions, 2021, 103, 149-157.	0.5	1
20	Interstitial lithium doping in SrTiO₃. AIP Advances, 2021, 11, 075029.	1.3	2
21	Nanoscale tracking of oxygen diffusion pathways in oxide ion conductors. Microscopy and Microanalysis, 2021, 27, 180-181.	0.4	0
22	Self-Supported Solid Oxide Fuel Cells by Multimaterial 3D Printing. ECS Transactions, 2021, 103, 59-66.	0.5	6
23	Thermal conductivity of individual Si and SiGe epitaxially integrated NWs by scanning thermal microscopy. Nanoscale, 2021, 13, 7252-7265.	5.6	10
24	Direct Measurement of Oxygen Mass Transport at the Nanoscale. Advanced Materials, 2021, 33, e2105622.	21.0	11
25	Harvesting performance of a planar thermoelectric microgenerator with a compact design. , 2021, , .		0
26	Enhanced thermoelectric figure of merit of individual Si nanowires with ultralow contact resistances. Nano Energy, 2020, 67, 104191.	16.0	28
27	Dynamic impedance spectroscopy of LiMn2O4 thin films made by multi-layer pulsed laser deposition. Electrochimica Acta, 2020, 331, 135385.	5.2	12
28	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
29	Operando probing of Li-insertion into LiMn₂O₄cathodes by spectroscopic ellipsometry. Journal of Materials Chemistry A, 2020, 8, 11538-11544.	10.3	10
30	Anthocyanins as Natural Pigments in Beverages. , 2019, , 383-428.		11
31	Thin film oxide-ion conducting electrolyte for near room temperature applications. Journal of Materials Chemistry A, 2019, 7, 25772-25778.	10.3	7
32	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
33	Improved micronanogenerators based on silicon compatible materials and processing. Journal of Physics: Conference Series, 2019, 1407, 012097.	0.4	1
34	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
35	All-silicon thermoelectric micro/nanogenerator including a heat exchanger for harvesting applications. Journal of Power Sources, 2019, 413, 125-133.	7.8	27
36	Unraveling bulk and grain boundary electrical properties in La0.8Sr0.2Mn1â^'yO3Â±Î´ thin films. APL Materials, 2019, 7, 013205.	5.1	8

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37	SiGe nanowire arrays based thermoelectric microgenerator. Nano Energy, 2019, 57, 492-499.	16.0	71
38	Engineering Transport in Manganites by Tuning Local Nonstoichiometry in Grain Boundaries. Advanced Materials, 2019, 31, e1805360.	21.0	29
39	An innovative multi-layer pulsed laser deposition approach for LiMn2O4 thin film cathodes. Thin Solid Films, 2018, 648, 108-112.	1.8	18
40	Understanding longitudinal degradation mechanisms of large-area micro-tubular solid oxide fuel cells. Electrochimica Acta, 2018, 265, 232-243.	5.2	5
41	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
42	Large-area and adaptable electrospun silicon-based thermoelectric nanomaterials with high energy conversion efficiencies. Nature Communications, 2018, 9, 4759.	12.8	62
43	Semiconductor Nanowires for Thermoelectric Generation. Semiconductors and Semimetals, 2018, 98, 321-407.	0.7	14
44	Infiltrated mesoporous oxygen electrodes for high temperature co-electrolysis of H₂O and CO₂ in solid oxide electrolysis cells. Journal of Materials Chemistry A, 2018, 6, 9699-9707.	10.3	29
45	Silicon-based nanostructures for integrated thermoelectric generators. Journal Physics D: Applied Physics, 2018, 51, 423001.	2.8	31
46	Unveiling the Outstanding Oxygen Mass Transport Properties of Mn-Rich Perovskites in Grain Boundary-Dominated La_{0.8}Sr_{0.2}(Mn_{1â€“x}Co_x)_{0.85}O_{3Â±Î´} Nanostructures. Chemistry of Materials, 2018, 30, 5621-5629.	6.7	25
47	Ultrafast Dischargeable LiMn₂O₄ Thin-Film Electrodes with Pseudocapacitive Properties for Microbatteries. ACS Applied Materials & Interfaces, 2017, 9, 5295-5301.	8.0	50
48	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
49	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
50	Degradation mechanism of La 0.6 Sr 0.4 Co 0.2 Fe 0.8 O 3-Î´ /Gd 0.1 Ce 0.9 O 2-Î´ composite electrode operated under solid oxide electrolysis and fuel cell conditions. Electrochimica Acta, 2017, 241, 459-476.	5.2	87
51	From materials to devices: Bottom-up integration of nanomaterials onto silicon microstructures for thermoelectric and piezoelectric applications. , 2017, , .		0
52	A Durable Electrode for Solid Oxide Cells: Mesoporous Ce0.8Sm0.2O1.9 Scaffolds Infiltrated with a Sm0.5Sr0.5CoO3-Î´ Catalyst. Electrochimica Acta, 2017, 235, 646-653.	5.2	18
53	High Specific Power Dual-Metal-Ion Rechargeable Microbatteries Based on LiMn₂O₄ and Zinc for Miniaturized Applications. ACS Applied Materials & Interfaces, 2017, 9, 32713-32719.	8.0	27
54	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

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55	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
56	Improved thermal and electrical design for an all-Si thermoelectric micropower source. Proceedings of SPIE, 2017, , .	0.8	1
57	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
58	Optimization of power output in planar thermoelectric microgenerators based on Si nanowires. Journal of Physics: Conference Series, 2016, 773, 012026.	0.4	2
59	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
60	Smart integration of silicon nanowire arrays in all-silicon thermoelectric micro-nanogenerators. Semiconductor Science and Technology, 2016, 31, 084001.	2.0	35
61	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
62	Synthesis and characterization of robust, mesoporous electrodes for solid oxide fuel cells. Journal of Materials Chemistry A, 2016, 4, 7650-7657.	10.3	13
63	Thermal Test of an Improved Platform for Silicon Nanowire-Based Thermoelectric Micro-generators. Journal of Electronic Materials, 2016, 45, 1689-1694.	2.2	10
64	Tailoring Multilayered BiVO₄ Photoanodes by Pulsed Laser Deposition for Water Splitting. ACS Applied Materials & Interfaces, 2016, 8, 4076-4085.	8.0	71
65	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
66	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
67	Bottom-up Silicon Nanowire Arrays for Thermoelectric Harvesting. Materials Today: Proceedings, 2015, 2, 675-679.	1.8	12
68	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
69	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
70	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
71	Co-electrolysis of steam and CO₂ 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
72	Towards a full integration of vertically aligned silicon nanowires in MEMS using silane as a precursor. Nanotechnology, 2015, 26, 195302.	2.6	37

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73	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
74	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
75	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
76	Engineering Mixed Ionic Electronic Conduction in La_{0.8}Sr_{0.2}MnO_{3+Î´} Nanostructures through Fast Grain Boundary Oxygen Diffusivity. Advanced Energy Materials, 2015, 5, 1500377.	19.5	75
77	Interdigitated design of a thermoelectric microgenerator based on silicon nanowire arrays. Proceedings of SPIE, 2015, , .	0.8	2
78	Thin Films: Engineering Mixed Ionic Electronic Conduction in La_{0.8}Sr_{0.2}MnO_{3+Î´} Nanostructures through Fast Grain Boundary Oxygen Diffusivity (Adv. Energy Mater. 11/2015). Advanced Energy Materials, 2015, 5, .	19.5	2
79	Grain Boundary Engineering to Improve Ionic Conduction in Thin Films for Micro-SOFCs. ECS Transactions, 2015, 69, 11-16.	0.5	2
80	Materials development: general discussion. Faraday Discussions, 2015, 182, 307-328.	3.2	0
81	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
82	SiNERGY, a project on energy harvesting and microstorage empowered by Silicon technologies. , 2015, , .		0
83	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
84	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
85	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
86	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
87	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
88	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
89	High-temperature long-term stable ordered mesoporous Niâ€“CGO as an anode for solid oxide fuel cells. Journal of Materials Chemistry A, 2013, 1, 4531.	10.3	31
90	Effect of Saccharomyces strains on the quality of red wines aged on lees. Food Chemistry, 2013, 139, 1044-1051.	8.2	63

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91	Highly electrocatalytic flexible nanofiber for improved vanadium-based redox flow battery cathode electrodes. RSC Advances, 2013, 3, 12056.	3.6	47
92	Physiological features of Schizosaccharomyces pombe of interest in making of white wines. European Food Research and Technology, 2013, 236, 29-36.	3.3	55
93	Wintertime connections between extreme wind patterns in Spain and large-scale geopotential height field. Atmospheric Research, 2013, 122, 213-228.	4.1	11
94	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
95	Integrating micro and nano: A route for all-silicon thermoelectricity?. , 2013, , .		0
96	Oenological versatility of Schizosaccharomyces spp.. European Food Research and Technology, 2012, 235, 375-383.	3.3	45
97	Formation of pyranoanthocyanins by Schizosaccharomyces pombe during the fermentation of red must. International Journal of Food Microbiology, 2012, 159, 47-53.	4.7	93
98	New trends in yeast selection for winemaking. Trends in Food Science and Technology, 2012, 23, 39-50.	15.1	164
99	Probabilistic and deterministic results of the ANPAF analog model for Spanish wind field estimations. Atmospheric Research, 2012, 108, 39-56.	4.1	10
100	Springtime connections between the large-scale sea-level pressure field and gust wind speed over Iberia and the Balearics. Natural Hazards and Earth System Sciences, 2011, 11, 191-203.	3.6	12
101	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
102	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
103	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
104	Mesoporous NiO-CGO Obtained by Hard Template as High Surface Area Anode for IT-SOFC. ECS Transactions, 2011, 35, 1647-1654.	0.5	5
105	Evaluation of an ensemble precipitation prediction system over the Western Mediterranean area. Atmospheric Research, 2010, 98, 163-175.	4.1	8
106	Characterization of the autumn Iberian precipitation from longâ€term datasets: comparison between observed and hindcasted data. International Journal of Climatology, 2009, 29, 527-541.	3.5	28
107	New genera of yeasts for over-lees aging of red wine. Food Chemistry, 2009, 112, 432-441.	8.2	89
108	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

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109	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
110	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
111	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
112	GdBaCo2O5+x layered perovskite as an intermediate temperature solid oxide fuel cell cathode. Journal of Power Sources, 2007, 174, 255-263.	7.8	135
113	Development and characterisation of a screen-printed mixed potential gas sensor. Sensors and Actuators B: Chemical, 2007, 130, 561-561.	7.8	9
114	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
115	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
116	Self-similarity patterns of precipitation in the Iberian Peninsula. Theoretical and Applied Climatology, 2006, 85, 41-59.	2.8	34
117	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
118	Grain-boundary resistivity versus grain size distribution in three-dimensional polycrystals. Applied Physics Letters, 2006, 88, 141920.	3.3	9
119	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
120	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
121	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
122	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
123	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
124	Pyruvic Acid and Acetaldehyde Production by Different Strains ofSaccharomyces 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
125	Short-channel radiation effect in 60 MeV proton irradiated 0.13Î¼m CMOS transistors. IEEE Transactions on Nuclear Science, 2003, 50, 2426-2432.	2.0	61
126	Novel design and preliminary results of YSZ electrolyte-based amperometric oxygen sensors. , 0, , .		3

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127	Organization of oxygen vacancies in low-temperature La/sub 2/Mo/sub 2/O/sub 9/ ion conductor. , 0, , .		0
128	Simulation of the influence of particle size distribution and grain boundary resistance on the electrical response of 2D polycrystals. , 0, , .		0
129	Managing Heat Transfer Issues in Thermoelectric Microgenerators. , 0, , .		3
130	Iberian autumnal precipitation characterization through observed, simulated and reanalysed data. Advances in Geosciences, 0, 16, 49-54.	12.0	13
131	Verification of a short-range ensemble precipitation prediction system over Iberia. Advances in Geosciences, 0, 25, 55-63.	12.0	3