Mauricio E Calvo

List of Publications by Year
in descending order

118	4,741	101384	106150
papers	citations	36 h-index	65 g-index

118	118	118	6664
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optoelectronic Devices Based on Scaffold Stabilized Blackâ€Phase CsPbI₃Nanocrystals. Advanced Optical Materials, 2022, 10, .	3.6	6
2	Enhanced up-conversion photoluminescence in fluorideâ€“oxyfluoride nanophosphor films by embedding gold nanoparticles. Materials Advances, 2022, 3, 4235-4242.	2.6	8
3	Effect of Spatial Inhomogeneity on Quantum Trapping. Journal of Physical Chemistry Letters, 2022, 13, 4513-4519.	2.1	5
4	Enhanced Directional Light Extraction from Patterned Rareâ€Earth Phosphor Films. Advanced Optical Materials, 2021, 9, 2001611.	3.6	17
5	The Complex Interplay of Lead Halide Perovskites with Their Surroundings. Advanced Optical Materials, 2021, 9, 2100133.	3.6	7
6	The Role of the Atmosphere on the Photophysics of Ligandâ€Free Leadâ€Halide Perovskite Nanocrystals. Advanced Optical Materials, 2021, 9, 2100605.	3.6	5
7	Highly Versatile Upconverting Oxyfluoride-Based Nanophosphor Films. ACS Applied Materials & Interfaces, 2021, 13, 30051-30060.	4.0	10
8	Ligandâ€Free MAPbI₃Quantum Dot Solar Cells Based on Nanostructured Insulating Matrices. Solar Rrl, 2021, 5, 2100204.	3.1	16
9	Persistent luminescent nanoparticles: Challenges and opportunities for a shimmering future. Journal of Applied Physics, 2021, 130, .	1.1	20
10	Disentangling Electronâ€“Phonon Coupling and Thermal Expansion Effects in the Band Gap Renormalization of Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2021, 12, 569-575.	2.1	29
11	Localized surface plasmon effects on the photophysics of perovskite thin films embedding metal nanoparticles. Journal of Materials Chemistry C, 2020, 8, 916-921.	2.7	28
12	Finite Size Effects on Light Propagation throughout Random Media: Relation between Optical Properties and Scattering Event Statistics. Advanced Optical Materials, 2020, 8, 1901196.	3.6	4
13	Internal quantum efficiency and time signals from intensity-modulated photocurrent spectra of perovskite solar cells. Journal of Applied Physics, 2020, 128, .	1.1	25
14	Efficient third harmonic generation from FAPbBr₃ perovskite nanocrystals. Journal of Materials Chemistry C, 2020, 8, 15990-15995.	2.7	20
15	Local Rearrangement of the Iodide Defect Structure Determines the Phase Segregation Effect in Mixed-Halide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 4911-4916.	2.1	20
16	Monitoring, Modeling, and Optimization of Lead Halide Perovskite Nanocrystal Growth within Porous Matrices. Journal of Physical Chemistry C, 2020, 124, 8041-8046.	1.5	2
17	Mesoporous Matrices as Hosts for Metal Halide Perovskite Nanocrystals. Advanced Optical Materials, 2020, 8, 1901868.	3.6	30
18	Optical Responses of Localized and Extended Modes in a Mesoporous Layer on Plasmonic Array to Isopropanol Vapor. Journal of Physical Chemistry C, 2020, 124, 5772-5779.	1.5	3

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19	Casimirâ€“Lifshitz Force Based Optical Resonators. Journal of Physical Chemistry Letters, 2019, 10, 5856-5860.	2.1	14
20	Spatially Resolved Analysis of Defect Annihilation and Recovery Dynamics in Metal Halide Perovskite Single Crystals. ACS Applied Energy Materials, 2019, 2, 6967-6972.	2.5	15
21	Flexible nanophosphor films doped with Mie resonators for enhanced out-coupling of the emission. Journal of Materials Chemistry C, 2019, 7, 267-274.	2.7	14
22	Nanoparticle Bragg reflectors: A smart analytical tool for biosensing. Biosensors and Bioelectronics: X, 2019, 1, 100012.	0.9	6
23	Tamm Plasmons Directionally Enhance Rare-Earth Nanophosphor Emission. ACS Photonics, 2019, 6, 634-641.	3.2	17
24	Highly Efficient Transparent Nanophosphor Films for Tunable White-Light-Emitting Layered Coatings. ACS Applied Materials & Interfaces, 2019, 11, 4219-4225.	4.0	16
25	Mechanism of Photoluminescence Intermittency in Organicâ€“Inorganic Perovskite Nanocrystals. ACS Applied Materials & Interfaces, 2019, 11, 6344-6349.	4.0	17
26	Nanophotonics Tunes Rare-Earth Nanophosphor Emission. , 2019, , .		0
27	Transparent nanophosphor films for efficient white-light generation. , 2019, , .		0
28	Photonic structuring improves the colour purity of rare-earth nanophosphors. Materials Horizons, 2018, 5, 661-667.	6.4	15
29	Absorption and Emission of Light in Optoelectronic Nanomaterials: The Role of the Local Optical Environment. Journal of Physical Chemistry Letters, 2018, 9, 2077-2084.	2.1	17
30	Flexible and Adaptable Lightâ€Emitting Coatings for Arbitrary Metal Surfaces based on Optical Tamm Mode Coupling. Advanced Optical Materials, 2018, 6, 1700560.	3.6	19
31	Improving the Bulk Emission Properties of CH₃NH₃PbBr₃ by Modifying the Halide-Related Defect Structure. Journal of Physical Chemistry C, 2018, 122, 27250-27255.	1.5	4
32	High voltage vacuum-deposited CH₃NH₃PbI₃â€“CH₃NH₃PbI₃ tandem solar cells. Energy and Environmental Science, 2018, 11, 3292-3297.	15.6	98
33	Highly Efficient and Environmentally Stable Flexible Color Converters Based on Confined CH₃NH₃PbBr₃ Nanocrystals. ACS Applied Materials & Interfaces, 2018, 10, 38334-38340.	4.0	20
34	Absorption enhancement in methylammonium lead iodide perovskite solar cells with embedded arrays of dielectric particles. Optics Express, 2018, 26, A865.	1.7	19
35	Origin of Light-Induced Photophysical Effects in Organic Metal Halide Perovskites in the Presence of Oxygen. Journal of Physical Chemistry Letters, 2018, 9, 3891-3896.	2.1	109
36	Strong Quantum Confinement and Fast Photoemission Activation in CH₃NH₃PbI₃ Perovskite Nanocrystals Grown within Periodically Mesostructured Films. Advanced Optical Materials, 2017, 5, 1601087.	3.6	65

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37	Photonic Tuning of the Emission Color of Nanophosphor Films Processed at High Temperature. Advanced Optical Materials, 2017, 5, 1700099.	3.6	21
38	Design and Realization of a Novel Optically Disordered Material: A Demonstration of a Mie Glass. Advanced Optical Materials, 2017, 5, 1700025.	3.6	8
39	Aperiodic Metalâ€Dielectric Multilayers as Highly Efficient Sunlight Reflectors. Advanced Optical Materials, 2017, 5, 1600833.	3.6	10
40	Electron injection and scaffold effects in perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 634-644.	2.7	58
41	Facile Synthesis of Hybrid Organicâ€“Inorganic Perovskite Microcubes of Optical Quality Using Polar Antisolvents. ACS Applied Materials & Interfaces, 2017, 9, 35505-35510.	4.0	4
42	Fluorescent Humidity Sensors Based on Photonic Resonators. Advanced Optical Materials, 2017, 5, 1700663.	3.6	28
43	ABX3 Perovskites for Tandem Solar Cells. Joule, 2017, 1, 769-793.	11.7	176
44	Materials chemistry approaches to the control of the optical features of perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 20561-20578.	5.2	35
45	Photonic Tuning of Nanophosphor Transparent thin films. , 2017, , .		0
46	Optical design of all-perovskite tandem solar cells. , 2017, , .		1
47	Unbroken Perovskite: Interplay of Morphology, Electroâ€optical Properties, and Ionic Movement. Advanced Materials, 2016, 28, 5031-5037.	11.1	242
48	Optical analysis of CH₃NH₃Sn_xPb_{1â^'x}I₃ absorbers: a roadmap for perovskite-on-perovskite tandem solar cells. Journal of Materials Chemistry A, 2016, 4, 11214-11221.	5.2	101
49	Three-Dimensional Optical Tomography and Correlated Elemental Analysis of Hybrid Perovskite Microstructures: An Insight into Defect-Related Lattice Distortion and Photoinduced Ion Migration. Journal of Physical Chemistry Letters, 2016, 7, 5227-5234.	2.1	37
50	A panchromatic modification of the light absorption spectra of metalâ€“organic frameworks. Chemical Communications, 2016, 52, 6665-6668.	2.2	44
51	Maximized performance of dye solar cells on plastic: a combined theoretical and experimental optimization approach. Energy and Environmental Science, 2016, 9, 2061-2071.	15.6	19
52	Solution processed high refractive index contrast distributed Bragg reflectors. Journal of Materials Chemistry C, 2016, 4, 4532-4537.	2.7	33
53	Integration of Photonic Crystals into Flexible Dye Solar Cells: A Route toward Bendable and Adaptable Optoelectronic Devices Displaying Structural Color and Enhanced Efficiency. Advanced Optical Materials, 2016, 4, 464-471.	3.6	29
54	Full solution process approach for deterministic control of light emission at the nanoscale (Conference Presentation). , 2016, , .		0

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55	Photophysical Analysis of the Formation of Organicâ€“Inorganic Trihalide Perovskite Films: Identification and Characterization of Crystal Nucleation and Growth. Journal of Physical Chemistry C, 2016, 120, 3071-3076.	1.5	23
56	Efficient bifacial dye-sensitized solar cells through disorder by design. Journal of Materials Chemistry A, 2016, 4, 1953-1961.	5.2	33
57	Color Tuning of GdVO4:Dy3+ Nanophosphor via photonic multilayers. , 2016, , .		0
58	Skin Protection: Biocompatible Films with Tailored Spectral Response for Prevention of DNA Damage in Skin Cells (Adv. Healthcare Mater. 13/2015). Advanced Healthcare Materials, 2015, 4, 2048-2048.	3.9	0
59	Adaptable Ultraviolet Reflecting Polymeric Multilayer Coatings of High Refractive Index Contrast. Advanced Optical Materials, 2015, 3, 1633-1639.	3.6	16
60	Environmental Effects on the Photophysics of Organicâ€“Inorganic Halide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 2200-2205.	2.1	205
61	Fine Tuning the Emission Properties of Nanoemitters in Multilayered Structures by Deterministic Control of their Local Photonic Environment. Small, 2015, 11, 2727-2732.	5.2	17
62	Biocompatible Films with Tailored Spectral Response for Prevention of DNA Damage in Skin Cells. Advanced Healthcare Materials, 2015, 4, 1944-1948.	3.9	13
63	Highly Efficient Perovskite Solar Cells with Tunable Structural Color. Nano Letters, 2015, 15, 1698-1702.	4.5	289
64	Flexible Distributed Bragg Reflectors from Nanocolumnar Templates. Advanced Optical Materials, 2015, 3, 171-175.	3.6	16
65	Absorption Enhancement in Organicâ€“Inorganic Halide Perovskite Films with Embedded Plasmonic Gold Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 18635-18640.	1.5	105
66	Nanolevitation Phenomena in Real Plane-Parallel Systems Due to the Balance between Casimir and Gravity Forces. Journal of Physical Chemistry C, 2015, 119, 5663-5670.	1.5	21
67	Design and realization of transparent solar modules based on luminescent solar concentrators integrating nanostructured photonic crystals. Progress in Photovoltaics: Research and Applications, 2015, 23, 1785-1792.	4.4	15
68	Synergistic strategies for the preparation of highly efficient dye-sensitized solar cells on plastic substrates: combination of chemical and physical sintering. RSC Advances, 2015, 5, 76795-76803.	1.7	7
69	Full solution processed mesostructured optical resonators integrating colloidal semiconductor quantum dots. Nanoscale, 2015, 7, 16583-16589.	2.8	9
70	Optical Description of Mesostructured Organicâ€“Inorganic Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 48-53.	2.1	59
71	Panchromatic porous specular back reflectors for efficient transparent dye solar cells. Physical Chemistry Chemical Physics, 2014, 16, 663-668.	1.3	17
72	Nanometerâ€Scale Precision Tuning of 3D Photonic Crystals Made Possible Using Polyelectrolytes with Controlled Short Chain Length and Narrow Polydispersity. Advanced Materials Interfaces, 2014, 1, 1300051.	1.9	3

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73	Fully stable numerical calculations for finite one-dimensional structures: Mapping the transfer matrix method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 134, 9-20.	1.1	20
74	Multidirectional Lightâ€Harvesting Enhancement in Dye Solar Cells by Surface Patterning. Advanced Optical Materials, 2014, 2, 879-884.	3.6	14
75	Microwave-Assisted Synthesis of Biocompatible Europium-Doped Calcium Hydroxyapatite and Fluoroapatite Luminescent Nanospindles Functionalized with Poly(acrylic acid). Langmuir, 2013, 29, 1985-1994.	1.6	94
76	Angular response of photonic crystal based dye sensitized solar cells. Energy and Environmental Science, 2013, 6, 1260.	15.6	40
77	Resonant Photocurrent Generation in Dye-Sensitized Periodically Nanostructured Photoconductors by Optical Field Confinement Effects. Journal of the American Chemical Society, 2013, 135, 7803-7806.	6.6	18
78	Selective UV Reflecting Mirrors Based on Nanoparticle Multilayers. Advanced Functional Materials, 2013, 23, 2805-2811.	7.8	76
79	CHAPTER 1. Responsive Bragg Reflectors. RSC Smart Materials, 2013, , 1-20.	0.1	1
80	Enhanced diffusion through porous nanoparticle optical multilayers. Journal of Materials Chemistry, 2012, 22, 1751-1757.	6.7	22
81	Collective osmotic shock in ordered materials. Nature Materials, 2012, 11, 53-57.	13.3	56
82	Characterization of Mesoporous Thin Films by Specular Reflectance Porosimetry. Langmuir, 2012, 28, 13777-13782.	1.6	14
83	Introducing structural colour in DSCs by using photonic crystals: interplay between conversion efficiency and optical properties. Energy and Environmental Science, 2012, 5, 8238.	15.6	50
84	Novel approaches to flexible visible transparent hybrid films for ultraviolet protection. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 945-956.	2.4	111
85	Integration of Gold Nanoparticles in Optical Resonators. Langmuir, 2012, 28, 9161-9167.	1.6	14
86	Efficient Transparent Thin Dye Solar Cells Based on Highly Porous 1D Photonic Crystals. Advanced Functional Materials, 2012, 22, 1303-1310.	7.8	74
87	Effect of nanostructured electrode architecture and semiconductor deposition strategy on the photovoltaic performance of quantum dot sensitized solar cells. Electrochimica Acta, 2012, 75, 139-147.	2.6	62
88	Porous one dimensional photonic crystals: novel multifunctional materials for environmental and energy applications. Energy and Environmental Science, 2011, 4, 4800.	15.6	114
89	Porous Supramolecularly Templated Optical Resonators Built in 1D Photonic Crystals. Advanced Functional Materials, 2011, 21, 2534-2540.	7.8	32
90	Interplay of Resonant Cavity Modes with Localized Surface Plasmons: Optical Absorption Properties of Bragg Stacks Integrating Gold Nanoparticles. Advanced Materials, 2011, 23, 2108-2112.	11.1	34

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91	Angular emission properties of a layer of rare-earth based nanophosphors embedded in one-dimensional photonic crystal coatings. Applied Physics Letters, 2011, 99, 051111.	1.5	3
92	Flexible and transferable one-dimensional photonic crystals based on polymer infiltrated nanoparticle multilayers. Proceedings of SPIE, 2010, , .	0.8	0
93	Mesostructured thin films as photonic crystal building blocks for sensing applications. Proceedings of SPIE, 2010, , .	0.8	0
94	Gallium Arsenide Infiltration of Nanoporous Multilayers: A Route to Highâ€Dielectricâ€Contrast Oneâ€Dimensional Photonic Crystals. Small, 2010, 6, 1283-1287.	5.2	6
95	All-nanoparticle-based optical resonators for detection of gases and liquids. , 2010, , .		0
96	Theoretical Analysis of the Performance of One-Dimensional Photonic Crystal-Based Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2010, 114, 3681-3687.	1.5	73
97	Flexible, Adhesive, and Biocompatible Bragg Mirrors Based on Polydimethylsiloxane Infiltrated Nanoparticle Multilayers. Chemistry of Materials, 2010, 22, 3909-3915.	3.2	47
98	TiO2â€“SiO2 one-dimensional photonic crystals of controlled porosity by glancing angle physical vapour deposition. Journal of Materials Chemistry, 2010, 20, 6408.	6.7	64
99	Porous One-Dimensional Photonic Crystal Coatings for Gas Detection. IEEE Sensors Journal, 2010, 10, 1206-1212.	2.4	21
100	Versatility and multifunctionality of highly reflecting Bragg mirrors based on nanoparticle multilayers. Journal of Materials Chemistry, 2010, 20, 8240.	6.7	36
101	Environmentally responsive nanoparticle-based luminescent optical resonators. Nanoscale, 2010, 2, 936.	2.8	24
102	Porous Oneâ€Dimensional Photonic Crystals Improve the Powerâ€Conversion Efficiency of Dyeâ€Sensitized Solar Cells. Advanced Materials, 2009, 21, 764-770.	11.1	249
103	Mesostructured Thin Films as Responsive Optical Coatings of Photonic Crystals. Small, 2009, 5, 2309-2315.	5.2	36
104	Experimental Demonstration of the Mechanism of Light Harvesting Enhancement in Photonic-Crystal-Based Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2009, 113, 1150-1154.	1.5	65
105	Control over the Structural and Optical Features of Nanoparticle-Based One-Dimensional Photonic Crystals. Langmuir, 2009, 25, 2443-2448.	1.6	35
106	Molding with nanoparticle-based one-dimensional photonic crystals: a route to flexible and transferable Bragg mirrors of high dielectric contrast. Journal of Materials Chemistry, 2009, 19, 3144.	6.7	61
107	Nanoparticle Based Multilayers as Multifunctional Optical Coatings. Materials Research Society Symposia Proceedings, 2009, 1188, 15.	0.1	0
108	Photoconducting Bragg Mirrors based on TiO₂ Nanoparticle Multilayers. Advanced Functional Materials, 2008, 18, 2708-2715.	7.8	81

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109	Nanoparticle-Based One-Dimensional Photonic Crystals. Langmuir, 2008, 24, 4430-4434.	1.6	190
110	Sorption Properties of Mesoporous Multilayer Thin Films. Journal of Physical Chemistry C, 2008, 112, 3157-3163.	1.5	110
111	Spectral Response of Opal-Based Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2008, 112, 13-17.	1.5	137
112	Integration of photonic crystals in dye sensitized solar cells. , 2008, , .		0
113	Mesoporous Hybrid Thin Films: Building Blocks for Complex Materials with Spatial Organization. Materials Research Society Symposia Proceedings, 2007, 1007, 1.	0.1	1
114	Enhanced power conversion efficiency in solar cells coupled to photonic crystals. Proceedings of SPIE, 2007, , .	0.8	1
115	Mesoporous Anatase TiO2Films:â€‰ Use of Ti K XANES for the Quantification of the Nanocrystalline Character and Substrate Effects in the Photocatalysis Behavior. Journal of Physical Chemistry C, 2007, 111, 10886-10893.	1.5	130
116	Hybrid non-silica mesoporous thin films. New Journal of Chemistry, 2005, 29, 59-63.	1.4	42
117	Enhancement of salicylate photodegradation under bias in binary mixtures. Catalysis Today, 2002, 76, 133-139.	2.2	9
118	Photooxidation of Organic Mixtures on Biased TiO2Films. Environmental Science & Technology, 2001, 35, 4132-4138.	4.6	60