

Mauricio E Calvo

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

105
papers

3,926
citations

34
h-index

60
g-index

118
ext. papers

4,341
ext. citations

9.3
avg, IF

5.7
L-index

#	Paper	IF	Citations
105	Highly efficient perovskite solar cells with tunable structural color. <i>Nano Letters</i> , 2015 , 15, 1698-702	11.5	240
104	Porous One-Dimensional Photonic Crystals Improve the Power-Conversion Efficiency of Dye-Sensitized Solar Cells. <i>Advanced Materials</i> , 2009 , 21, 764-770	24	227
103	Unbroken Perovskite: Interplay of Morphology, Electro-optical Properties, and Ionic Movement. <i>Advanced Materials</i> , 2016 , 28, 5031-7	24	208
102	Environmental Effects on the Photophysics of Organic-Inorganic Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 2200-5	6.4	181
101	Nanoparticle-based one-dimensional photonic crystals. <i>Langmuir</i> , 2008 , 24, 4430-4	4	171
100	Spectral Response of Opal-Based Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 13-17	3.8	131
99	ABX ₃ Perovskites for Tandem Solar Cells. <i>Joule</i> , 2017 , 1, 769-793	27.8	125
98	Mesoporous Anatase TiO ₂ Films: Use of Ti K XANES for the Quantification of the Nanocrystalline Character and Substrate Effects in the Photocatalysis Behavior. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 10886-10893	3.8	116
97	Sorption Properties of Mesoporous Multilayer Thin Films. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 3157-3163	3.8	101
96	Porous one dimensional photonic crystals: novel multifunctional materials for environmental and energy applications. <i>Energy and Environmental Science</i> , 2011 , 4, 4800	35.4	96
95	Novel approaches to flexible visible transparent hybrid films for ultraviolet protection. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012 , 50, 945-956	2.6	93
94	Absorption Enhancement in Organic-Inorganic Halide Perovskite Films with Embedded Plasmonic Gold Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 18635-18640	3.8	89
93	Optical analysis of CH ₃ NH ₃ PbI ₃ absorbers: a roadmap for perovskite-on-perovskite tandem solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 11214-11221	13	87
92	Origin of Light-Induced Photophysical Effects in Organic Metal Halide Perovskites in the Presence of Oxygen. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 3891-3896	6.4	84
91	Microwave-assisted synthesis of biocompatible europium-doped calcium hydroxyapatite and fluoroapatite luminescent nanospindles functionalized with poly(acrylic acid). <i>Langmuir</i> , 2013 , 29, 1985-94	4	76
90	High voltage vacuum-deposited CH ₃ NH ₃ PbI ₃ /CH ₃ NH ₃ PbI ₃ tandem solar cells. <i>Energy and Environmental Science</i> , 2018 , 11, 3292-3297	35.4	74
89	Efficient Transparent Thin Dye Solar Cells Based on Highly Porous 1D Photonic Crystals. <i>Advanced Functional Materials</i> , 2012 , 22, 1303-1310	15.6	72

88	Photoconducting Bragg Mirrors based on TiO ₂ Nanoparticle Multilayers. <i>Advanced Functional Materials</i> , 2008 , 18, 2708-2715	15.6	72
87	Selective UV Reflecting Mirrors Based on Nanoparticle Multilayers. <i>Advanced Functional Materials</i> , 2013 , 23, 2805-2811	15.6	65
86	TiO ₂ /BiO ₂ one-dimensional photonic crystals of controlled porosity by glancing angle physical vapour deposition. <i>Journal of Materials Chemistry</i> , 2010 , 20, 6408		63
85	Theoretical Analysis of the Performance of One-Dimensional Photonic Crystal-Based Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 3681-3687	3.8	62
84	Effect of nanostructured electrode architecture and semiconductor deposition strategy on the photovoltaic performance of quantum dot sensitized solar cells. <i>Electrochimica Acta</i> , 2012 , 75, 139-147	6.7	61
83	Photooxidation of organic mixtures on biased TiO ₂ films. <i>Environmental Science & Technology</i> , 2001 , 35, 4132-8	10.3	58
82	Molding with nanoparticle-based one-dimensional photonic crystals: a route to flexible and transferable Bragg mirrors of high dielectric contrast. <i>Journal of Materials Chemistry</i> , 2009 , 19, 3144		57
81	Experimental Demonstration of the Mechanism of Light Harvesting Enhancement in Photonic-Crystal-Based Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 1150-1154	3.8	56
80	Collective osmotic shock in ordered materials. <i>Nature Materials</i> , 2011 , 11, 53-7	27	54
79	Strong Quantum Confinement and Fast Photoemission Activation in CH ₃ NH ₃ PbI ₃ Perovskite Nanocrystals Grown within Periodically Mesoporous Films. <i>Advanced Optical Materials</i> , 2017 , 5, 1601087	8.1	52
78	Electron injection and scaffold effects in perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 634-644	7.1	52
77	Optical Description of Mesoporous Organic-Inorganic Halide Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 48-53	6.4	51
76	Introducing structural colour in DSCs by using photonic crystals: interplay between conversion efficiency and optical properties. <i>Energy and Environmental Science</i> , 2012 , 5, 8238	35.4	45
75	Flexible, Adhesive, and Biocompatible Bragg Mirrors Based on Polydimethylsiloxane Infiltrated Nanoparticle Multilayers. <i>Chemistry of Materials</i> , 2010 , 22, 3909-3915	9.6	42
74	Hybrid non-silica mesoporous thin films. <i>New Journal of Chemistry</i> , 2005 , 29, 59-63	3.6	42
73	Angular response of photonic crystal based dye sensitized solar cells. <i>Energy and Environmental Science</i> , 2013 , 6, 1260-1266	35.4	36
72	A panchromatic modification of the light absorption spectra of metal-organic frameworks. <i>Chemical Communications</i> , 2016 , 52, 6665-8	5.8	34
71	Mesoporous thin films as responsive optical coatings of photonic crystals. <i>Small</i> , 2009 , 5, 2309-15	11	32

70	Three-Dimensional Optical Tomography and Correlated Elemental Analysis of Hybrid Perovskite Microstructures: An Insight into Defect-Related Lattice Distortion and Photoinduced Ion Migration. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 5227-5234	6.4	32
69	Interplay of resonant cavity modes with localized surface plasmons: optical absorption properties of Bragg stacks integrating gold nanoparticles. <i>Advanced Materials</i> , 2011 , 23, 2108-12	24	31
68	Versatility and multifunctionality of highly reflecting Bragg mirrors based on nanoparticle multilayers. <i>Journal of Materials Chemistry</i> , 2010 , 20, 8240		31
67	Control over the structural and optical features of nanoparticle-based one-dimensional photonic crystals. <i>Langmuir</i> , 2009 , 25, 2443-8	4	31
66	Porous Supramolecularly Templated Optical Resonators Built in 1D Photonic Crystals. <i>Advanced Functional Materials</i> , 2011 , 21, 2534-2540	15.6	30
65	Efficient bifacial dye-sensitized solar cells through disorder by design. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 1953-1961	13	28
64	Materials chemistry approaches to the control of the optical features of perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 20561-20578	13	27
63	Solution processed high refractive index contrast distributed Bragg reflectors. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 4532-4537	7.1	25
62	Integration of Photonic Crystals into Flexible Dye Solar Cells: A Route toward Bendable and Adaptable Optoelectronic Devices Displaying Structural Color and Enhanced Efficiency. <i>Advanced Optical Materials</i> , 2016 , 4, 464-471	8.1	25
61	Fluorescent Humidity Sensors Based on Photonic Resonators. <i>Advanced Optical Materials</i> , 2017 , 5, 1700663	6.3	23
60	Enhanced diffusion through porous nanoparticle optical multilayers. <i>Journal of Materials Chemistry</i> , 2012 , 22, 1751-1757		22
59	Environmentally responsive nanoparticle-based luminescent optical resonators. <i>Nanoscale</i> , 2010 , 2, 936-47	4.7	22
58	Photophysical Analysis of the Formation of Organic-Inorganic Trihalide Perovskite Films: Identification and Characterization of Crystal Nucleation and Growth. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 3071-3076	3.8	21
57	Porous One-Dimensional Photonic Crystal Coatings for Gas Detection. <i>IEEE Sensors Journal</i> , 2010 , 10, 1206-1212	4	18
56	Resonant photocurrent generation in dye-sensitized periodically nanostructured photoconductors by optical field confinement effects. <i>Journal of the American Chemical Society</i> , 2013 , 135, 7803-6	16.4	17
55	Localized surface plasmon effects on the photophysics of perovskite thin films embedding metal nanoparticles. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 916-921	7.1	17
54	Panchromatic porous specular back reflectors for efficient transparent dye solar cells. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 663-8	3.6	16
53	Maximized performance of dye solar cells on plastic: a combined theoretical and experimental optimization approach. <i>Energy and Environmental Science</i> , 2016 , 9, 2061-2071	35.4	15

52	Absorption enhancement in methylammonium lead iodide perovskite solar cells with embedded arrays of dielectric particles. <i>Optics Express</i> , 2018 , 26, A865-A878	3.3	15
51	Mesoporous Matrices as Hosts for Metal Halide Perovskite Nanocrystals. <i>Advanced Optical Materials</i> , 2020 , 8, 1901868	8.1	14
50	Fully stable numerical calculations for finite one-dimensional structures: Mapping the transfer matrix method. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2014 , 134, 9-20	2.1	14
49	Adaptable Ultraviolet Reflecting Polymeric Multilayer Coatings of High Refractive Index Contrast. <i>Advanced Optical Materials</i> , 2015 , 3, 1633-1639	8.1	14
48	Fine Tuning the Emission Properties of Nanoemitters in Multilayered Structures by Deterministic Control of their Local Photonic Environment. <i>Small</i> , 2015 , 11, 2727-32	11	14
47	Flexible Distributed Bragg Reflectors from Nanocolumnar Templates. <i>Advanced Optical Materials</i> , 2015 , 3, 171-175	8.1	13
46	Mechanism of Photoluminescence Intermittency in Organic-Inorganic Perovskite Nanocrystals. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 6344-6349	9.5	13
45	Flexible and Adaptable Light-Emitting Coatings for Arbitrary Metal Surfaces based on Optical Tamm Mode Coupling. <i>Advanced Optical Materials</i> , 2018 , 6, 1700560	8.1	13
44	Photonic Tuning of the Emission Color of Nanophosphor Films Processed at High Temperature. <i>Advanced Optical Materials</i> , 2017 , 5, 1700099	8.1	12
43	Nanolevitation Phenomena in Real Plane-Parallel Systems Due to the Balance between Casimir and Gravity Forces. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 5663-5670	3.8	12
42	Multidirectional Light-Harvesting Enhancement in Dye Solar Cells by Surface Patterning. <i>Advanced Optical Materials</i> , 2014 , 2, 879-884	8.1	12
41	Absorption and Emission of Light in Optoelectronic Nanomaterials: The Role of the Local Optical Environment. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 2077-2084	6.4	11
40	Biocompatible films with tailored spectral response for prevention of DNA damage in skin cells. <i>Advanced Healthcare Materials</i> , 2015 , 4, 1944-8	10.1	11
39	Integration of gold nanoparticles in optical resonators. <i>Langmuir</i> , 2012 , 28, 9161-7	4	11
38	Spatially Resolved Analysis of Defect Annihilation and Recovery Dynamics in Metal Halide Perovskite Single Crystals. <i>ACS Applied Energy Materials</i> , 2019 , 2, 6967-6972	6.1	10
37	Local Rearrangement of the Iodide Defect Structure Determines the Phase Segregation Effect in Mixed-Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 4911-4916	6.4	10
36	Characterization of mesoporous thin films by specular reflectance porosimetry. <i>Langmuir</i> , 2012 , 28, 13777-82	10	10
35	Disentangling Electron-Phonon Coupling and Thermal Expansion Effects in the Band Gap Renormalization of Perovskite Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 569-575	6.4	10

34	Tamm Plasmons Directionally Enhance Rare-Earth Nanophosphor Emission. <i>ACS Photonics</i> , 2019 , 6, 634-641	6.4	10
33	Highly Efficient and Environmentally Stable Flexible Color Converters Based on Confined CHNHPbBr Nanocrystals. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 38334-38340	9.5	10
32	Flexible nanophosphor films doped with Mie resonators for enhanced out-coupling of the emission. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 267-274	7.1	9
31	Design and realization of transparent solar modules based on luminescent solar concentrators integrating nanostructured photonic crystals. <i>Progress in Photovoltaics: Research and Applications</i> , 2015 , 23, 1785-1792	6.8	9
30	Enhancement of salicylate photodegradation under bias in binary mixtures. <i>Catalysis Today</i> , 2002 , 76, 133-139	5.3	9
29	Efficient third harmonic generation from FAPbBr ₃ perovskite nanocrystals. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 15990-15995	7.1	9
28	Aperiodic Metal-Dielectric Multilayers as Highly Efficient Sunlight Reflectors. <i>Advanced Optical Materials</i> , 2017 , 5, 1600833	8.1	8
27	Full solution processed mesostructured optical resonators integrating colloidal semiconductor quantum dots. <i>Nanoscale</i> , 2015 , 7, 16583-9	7.7	8
26	Internal quantum efficiency and time signals from intensity-modulated photocurrent spectra of perovskite solar cells. <i>Journal of Applied Physics</i> , 2020 , 128, 133103	2.5	8
25	Design and Realization of a Novel Optically Disordered Material: A Demonstration of a Mie Glass. <i>Advanced Optical Materials</i> , 2017 , 5, 1700025	8.1	7
24	Photonic structuring improves the colour purity of rare-earth nanophosphors. <i>Materials Horizons</i> , 2018 , 5, 661-667	14.4	7
23	Highly Efficient Transparent Nanophosphor Films for Tunable White-Light-Emitting Layered Coatings. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 4219-4225	9.5	7
22	Enhanced Directional Light Extraction from Patterned Rare-Earth Phosphor Films. <i>Advanced Optical Materials</i> , 2021 , 9, 2001611	8.1	7
21	Casimir-Lifshitz Force Based Optical Resonators. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 5856-5860	6.4	6
20	Synergistic strategies for the preparation of highly efficient dye-sensitized solar cells on plastic substrates: combination of chemical and physical sintering. <i>RSC Advances</i> , 2015 , 5, 76795-76803	3.7	6
19	Gallium arsenide infiltration of nanoporous multilayers: a route to high-dielectric-contrast one-dimensional photonic crystals. <i>Small</i> , 2010 , 6, 1283-7	11	6
18	Ligand-Free MAPbI ₃ Quantum Dot Solar Cells Based on Nanostructured Insulating Matrices. <i>Solar Rrl</i> , 2021 , 5, 2100204	7.1	6
17	Nanoparticle Bragg reflectors: A smart analytical tool for biosensing. <i>Biosensors and Bioelectronics: X</i> , 2019 , 1, 100012	2.9	4

16	The Complex Interplay of Lead Halide Perovskites with Their Surroundings. <i>Advanced Optical Materials</i> , 2021 , 9, 2100133	8.1	4
15	Persistent luminescent nanoparticles: Challenges and opportunities for a shimmering future. <i>Journal of Applied Physics</i> , 2021 , 130, 080902	2.5	4
14	Facile Synthesis of Hybrid Organic-Inorganic Perovskite Microcubes of Optical Quality Using Polar Antisolvents. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 35505-35510	9.5	3
13	Nanometer-Scale Precision Tuning of 3D Photonic Crystals Made Possible Using Polyelectrolytes with Controlled Short Chain Length and Narrow Polydispersity. <i>Advanced Materials Interfaces</i> , 2014 , 1, 1300051	4.6	3
12	Angular emission properties of a layer of rare-earth based nanophosphors embedded in one-dimensional photonic crystal coatings. <i>Applied Physics Letters</i> , 2011 , 99, 051111	3.4	3
11	Finite Size Effects on Light Propagation throughout Random Media: Relation between Optical Properties and Scattering Event Statistics. <i>Advanced Optical Materials</i> , 2020 , 8, 1901196	8.1	3
10	Improving the Bulk Emission Properties of CH ₃ NH ₃ PbBr ₃ by Modifying the Halide-Related Defect Structure. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 27250-27255	3.8	3
9	Optical Responses of Localized and Extended Modes in a Mesoporous Layer on Plasmonic Array to Isopropanol Vapor. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 5772-5779	3.8	2
8	The Role of the Atmosphere on the Photophysics of Ligand-Free Lead-Halide Perovskite Nanocrystals. <i>Advanced Optical Materials</i> , 2021 , 9, 2100605	8.1	2
7	Monitoring, Modeling, and Optimization of Lead Halide Perovskite Nanocrystal Growth within Porous Matrices. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 8041-8046	3.8	1
6	Mesoporous Hybrid Thin Films: Building Blocks for Complex Materials with Spatial Organization. <i>Materials Research Society Symposia Proceedings</i> , 2007 , 1007, 1		1
5	Highly Versatile Upconverting Oxyfluoride-Based Nanophosphor Films. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 30051-30060	9.5	1
4	Effect of Spatial Inhomogeneity on Quantum Trapping.. <i>Journal of Physical Chemistry Letters</i> , 2022 , 451364519	10.1	1
3	Optoelectronic Devices Based on Scaffold Stabilized Black-Phase CsPbI ₃ Nanocrystals. <i>Advanced Optical Materials</i> , 2102112	8.1	0
2	Skin Protection: Biocompatible Films with Tailored Spectral Response for Prevention of DNA Damage in Skin Cells (Adv. Healthcare Mater. 13/2015). <i>Advanced Healthcare Materials</i> , 2015 , 4, 2048-2048	10.1	
1	Nanoparticle Based Multilayers as Multifunctional Optical Coatings. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1188, 15		