Francisco Palazon

List of Publications by Year
in descending order

61 papers	3,338 citations	186265 28 h-index	144013 57 g-index
61 all docs	61 docs citations	61 times ranked	5409 citing authors

#	Article	IF	Citations
1	Strongly emissive perovskite nanocrystal inks for high-voltage solar cells. Nature Energy, 2017, 2, .	39.5	544
2	X-ray Lithography on Perovskite Nanocrystals Films: From Patterning with Anion-Exchange Reactions to Enhanced Stability in Air and Water. ACS Nano, 2016, 10, 1224-1230.	14.6	320
3	In Situ Transmission Electron Microscopy Study of Electron Beam-Induced Transformations in Colloidal Cesium Lead Halide Perovskite Nanocrystals. ACS Nano, 2017, 11, 2124-2132.	14.6	246
4	Postsynthesis Transformation of Insulating Cs₄PbBr₆ Nanocrystals into Bright Perovskite CsPbBr₃ through Physical and Chemical Extraction of CsBr. ACS Energy Letters, 2017, 2, 2445-2448.	17.4	177
5	Polymer-Free Films of Inorganic Halide Perovskite Nanocrystals as UV-to-White Color-Conversion Layers in LEDs. Chemistry of Materials, 2016, 28, 2902-2906.	6.7	152
6	Changing the Dimensionality of Cesium Lead Bromide Nanocrystals by Reversible Postsynthesis Transformations with Amines. Chemistry of Materials, 2017, 29, 4167-4171.	6.7	142
7	High-yield production of 2D crystals by wet-jet milling. Materials Horizons, 2018, 5, 890-904.	12.2	139
8	From CsPbBr₃ Nano-Inks to Sintered CsPbBr₃â€“CsPb₂Br₅ Films via Thermal Annealing: Implications on Optoelectronic Properties. Journal of Physical Chemistry C, 2017, 121, 11956-11961.	3.1	96
9	Solvent-Free Synthesis and Thin-Film Deposition of Cesium Copper Halides with Bright Blue Photoluminescence. Chemistry of Materials, 2019, 31, 10205-10210.	6.7	94
10	Efficient Wide-Bandgap Mixed-Cation and Mixed-Halide Perovskite Solar Cells by Vacuum Deposition. ACS Energy Letters, 2021, 6, 827-836.	17.4	81
11	Vacuum-Deposited 2D/3D Perovskite Heterojunctions. ACS Energy Letters, 2019, 4, 2893-2901.	17.4	77
12	Making by Grinding: Mechanochemistry Boosts the Development of Halide Perovskites and Other Multinary Metal Halides. Advanced Energy Materials, 2020, 10, 1902499.	19.5	76
13	Single-Source Vacuum Deposition of Mechanosynthesized Inorganic Halide Perovskites. Chemistry of Materials, 2018, 30, 7423-7427.	6.7	67
14	Evolution of CsPbBr₃ nanocrystals upon post-synthesis annealing under an inert atmosphere. Journal of Materials Chemistry C, 2016, 4, 9179-9182.	5.5	62
15	Mechanochemical synthesis of inorganic halide perovskites: evolution of phase-purity, morphology, and photoluminescence. Journal of Materials Chemistry C, 2019, 7, 11406-11410.	5.5	58
16	Enhancing the Performance of CdSe/CdS Dot-in-Rod Light-Emitting Diodes via Surface Ligand Modification. ACS Applied Materials & Interfaces, 2018, 10, 5665-5672.	8.0	55
17	Superhydrophobic high impact polystyrene (HIPS) nanocomposites with wear abrasion resistance. Chemical Engineering Journal, 2017, 322, 10-21.	12.7	53
18	Efficient Vacuum-Deposited Perovskite Solar Cells with Stable Cubic FA_{1â€“x}MA_xPbI₃. ACS Energy Letters, 2020, 5, 3053-3061.	17.4	49

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19	Roomâ€Temperature Cubic Phase Crystallization and High Stability of Vacuumâ€Deposited Methylammonium Lead Triiodide Thin Films for Highâ€Efficiency Solar Cells. Advanced Materials, 2019, 31, e1902692.	21.0	47
20	Low-dimensional non-toxic A₃Bi₂X₉ compounds synthesized by a dry mechanochemical route with tunable visible photoluminescence at room temperature. Journal of Materials Chemistry C, 2019, 7, 6236-6240.	5.5	43
21	Carbodiimide/NHS Derivatization of COOH-Terminated SAMs: Activation or Byproduct Formation?. Langmuir, 2014, 30, 4545-4550.	3.5	42
22	Molecular Iodine for a General Synthesis of Binary and Ternary Inorganic and Hybrid Organicâ€“Inorganic Iodide Nanocrystals. Chemistry of Materials, 2018, 30, 6915-6921.	6.7	36
23	Antibacterial Melamine Foams Decorated with in Situ Synthesized Silver Nanoparticles. ACS Applied Materials & Interfaces, 2018, 10, 16095-16104.	8.0	35
24	Writing on Nanocrystals: Patterning Colloidal Inorganic Nanocrystal Films through Irradiation-Induced Chemical Transformations of Surface Ligands. Journal of the American Chemical Society, 2017, 139, 13250-13259.	13.7	34
25	Mechanochemical Synthesis of Sn(II) and Sn(IV) Iodide Perovskites and Study of Their Structural, Chemical, Thermal, Optical, and Electrical Properties. Energy Technology, 2020, 8, 1900788.	3.8	34
26	Room-Temperature Vacuum Deposition of CsPbI₂Br Perovskite Films from Multiple Sources and Mixed Halide Precursors. Chemistry of Materials, 2020, 32, 8641-8652.	6.7	32
27	Coating Evaporated MAPI Thin Films with Organic Molecules: Improved Stability at High Temperature and Implementation in High-Efficiency Solar Cells. ACS Energy Letters, 2018, 3, 835-839.	17.4	30
28	Reshaping the phonon energy landscape of nanocrystals inside a terahertz plasmonic nanocavity. Nature Communications, 2018, 9, 763.	12.8	30
29	Pulsed Laser Deposition of Cs₂AgBiBr₆: from Mechanochemically Synthesized Powders to Dry, Single-Step Deposition. Chemistry of Materials, 2021, 33, 7417-7422.	6.7	29
30	Metal Chalcohalides: Next Generation Photovoltaic Materials?. Solar Rrl, 2022, 6, 2100829.	5.8	29
31	Facile production of seaweed-based biomaterials with antioxidant and anti-inflammatory activities. Algal Research, 2017, 27, 1-11.	4.6	28
32	Lateral epitaxial heterojunctions in single nanowires fabricated by masked cation exchange. Nature Communications, 2018, 9, 505.	12.8	28
33	Design, Fabrication, and In Vitro Evaluation of Nanoceria-Loaded Nanostructured Lipid Carriers for the Treatment of Neurological Diseases. ACS Biomaterials Science and Engineering, 2019, 5, 670-682.	5.2	25
34	Short Photoluminescence Lifetimes in Vacuum-Deposited CH₃NH₃PbI₃ Perovskite Thin Films as a Result of Fast Diffusion of Photogenerated Charge Carriers. Journal of Physical Chemistry Letters, 2019, 10, 5167-5172.	4.6	24
35	Quadruple-Cation Wide-Bandgap Perovskite Solar Cells with Enhanced Thermal Stability Enabled by Vacuum Deposition. ACS Energy Letters, 2022, 7, 1355-1363.	17.4	24
36	Cu₂Se and Cu Nanocrystals as Local Sources of Copper in Thermally Activated In Situ Cation Exchange. ACS Nano, 2016, 10, 2406-2414.	14.6	23

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37	Efficient Photo- and Electroluminescence by Trap States Passivation in Vacuum-Deposited Hybrid Perovskite Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 36187-36193.	8.0	23
38	CsPbX₃/SiO_x (X = Cl, Br, I) monoliths prepared via a novel solâ€“gel route starting from Cs₄PbX₆ nanocrystals. Nanoscale, 2019, 11, 18739-18745.	5.6	23
39	Incorporation of potassium halides in the mechanosynthesis of inorganic perovskites: feasibility and limitations of ion-replacement and trap passivation. RSC Advances, 2018, 8, 41548-41551.	3.6	21
40	Potential and limitations of CsBi3I10 as a photovoltaic material. Journal of Materials Chemistry A, 2020, 8, 15670-15674.	10.3	21
41	Ultralow friction of ink-jet printed graphene flakes. Nanoscale, 2017, 9, 7612-7624.	5.6	20
42	Crystal Reorientation and Amorphization Induced by Stressing Efficient and Stable Pâ€“Iâ€“N Vacuumâ€Processed MAPbI₃ Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2021, 2, 2000065.	5.8	20
43	Facile synthesis of Geâ€“MWCNT nanocomposite electrodes for high capacity lithium ion batteries. Journal of Materials Chemistry A, 2017, 5, 19721-19728.	10.3	19
44	Tuning the Optical Absorption of Sn-, Ge-, and Zn-Substituted Cs₂AgBiBr₆ Double Perovskites: Structural and Electronic Effects. Chemistry of Materials, 2021, 33, 8028-8035.	6.7	18
45	Zero-Dimensional Hybrid Organicâ€“Inorganic Lead Halides and Their Post-Synthesis Reversible Transformation into Three-Dimensional Perovskites. Inorganic Chemistry, 2021, 60, 5212-5216.	4.0	17
46	Dry Mechanochemical Synthesis of Highly Luminescent, Blue and Green Hybrid Perovskite Solids. Advanced Optical Materials, 2020, 8, 1901494.	7.3	16
47	Dual-source vacuum deposition of pure and mixed halide 2D perovskites: thin film characterization and processing guidelines. Journal of Materials Chemistry C, 2020, 8, 1902-1908.	5.5	15
48	Low-dimensional iodide perovskite nanocrystals enable efficient red emission. Nanoscale, 2019, 11, 12793-12797.	5.6	13
49	Effects of Oxygen Plasma on the Chemical, Light-Emitting, and Electrical-Transport Properties of Inorganic and Hybrid Lead Bromide Perovskite Nanocrystal Films. ACS Applied Nano Materials, 2018, 1, 5396-5400.	5.0	8
50	Laser-induced in situ synthesis of Pd and Pt nanoparticles on polymer films. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	7
51	Oneâ€Pot Hybrid SnO₂/Poly(methyl methacrylate) Nanocomposite Formation through Pulsed Laser Irradiation. ChemPhysChem, 2017, 18, 1635-1641.	2.1	6
52	Tunable Wideâ€Bandgap Monohalide Perovskites. Advanced Optical Materials, 2020, 8, 2000423.	7.3	6
53	Nanoparticles selectively immobilized onto large arrays of gold micro and nanostructures through surface chemical functionalizations. Journal of Colloid and Interface Science, 2015, 447, 152-158.	9.4	5
54	Orthogonal chemical functionalization of patterned gold on silica surfaces. Beilstein Journal of Nanotechnology, 2015, 6, 2272-2277.	2.8	4

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55	Melamine Foams Decorated with In-Situ Synthesized Gold and Palladium Nanoparticles. Polymers, 2020, 12, 934.	4.5	3
56	NANOTRAPS: Different Approaches for the Precise Placement of Micro and Nano-Objects from a Colloidal Dispersion Onto Nanometric Scale Sites of a Patterned Macroscopic Surface. Journal of Colloid Science and Biotechnology, 2013, 2, 249-262.	0.2	3
57	Dimensionality Controls Anion Intermixing in Electroluminescent Perovskite Heterojunctions. ACS Photonics, 2022, 9, 2483-2488.	6.6	3
58	X-ray-induced degradation of OEG-terminated SAMs on silica surfaces during XPS characterization. Surface and Interface Analysis, 2015, 47, 719-722.	1.8	2
59	Site-Selective Self-Assembly of Nano-Objects on a Planar Substrate Based on Surface Chemical Functionalization. Advances in Atom and Single Molecule Machines, 2015, , 93-112.	0.0	2
60	Low Temperature, Vacuumâ€Processed Bismuth Triiodide Solar Cells with Organic Smallâ€Molecule Hole Transport Bilayer. Energy Technology, 2021, 9, 2100661.	3.8	2
61	Modifying the Optical Phonon Response of Nanocrystals inside Terahertz Plasmonic Nanocavities. , 2019, , .		0