Annallisa Bruno

List of Publications by Year
in descending order

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131 papers	5,424 citations	94433 37 h-index	88630 70 g-index
137 all docs	137 docs citations	137 times ranked	8123 citing authors

#	Article	IF	Citations
1	Lead iodide perovskite light-emitting field-effect transistor. Nature Communications, 2015, 6, 7383.	12.8	641
2	Lead-Free MA₂CuCl_xBr_{4â€“x} Hybrid Perovskites. Inorganic Chemistry, 2016, 55, 1044-1052.	4.0	457
3	X-ray Scintillation in Lead Halide Perovskite Crystals. Scientific Reports, 2016, 6, 37254.	3.3	271
4	Highly Efficient Thermally Co-evaporated Perovskite Solar Cells and Mini-modules. Joule, 2020, 4, 1035-1053.	24.0	257
5	Polaron self-localization in white-light emitting hybrid perovskites. Journal of Materials Chemistry C, 2017, 5, 2771-2780.	5.5	196
6	Self-assembled hierarchical nanostructured perovskites enable highly efficient LEDs via an energy cascade. Energy and Environmental Science, 2018, 11, 1770-1778.	30.8	135
7	Intrinsic Lead Ion Emissions in Zero-Dimensional Cs₄PbBr₆ Nanocrystals. ACS Energy Letters, 2017, 2, 2805-2811.	17.4	133
8	Spinel Co₃O₄ nanomaterials for efficient and stable large area carbon-based printed perovskite solar cells. Nanoscale, 2018, 10, 2341-2350.	5.6	106
9	Benzyl Alcohol-Treated CH₃NH₃PbBr₃ Nanocrystals Exhibiting High Luminescence, Stability, and Ultralow Amplified Spontaneous Emission Thresholds. Nano Letters, 2017, 17, 7424-7432.	9.1	100
10	Efficient and Ambientâ€Airâ€Stable Solar Cell with Highly Oriented 2D@3D Perovskites. Advanced Functional Materials, 2018, 28, 1801654.	14.9	98
11	Crown Ethers Enable Room-Temperature Synthesis of CsPbBr₃ Quantum Dots for Light-Emitting Diodes. ACS Energy Letters, 2018, 3, 526-531.	17.4	92
12	Highly efficient Cs-based perovskite light-emitting diodes enabled by energy funnelling. Chemical Communications, 2017, 53, 12004-12007.	4.1	85
13	Designing Efficient Energy Funneling Kinetics in Ruddlesdenâ€“Popper Perovskites for Highâ€Performance Lightâ€Emitting Diodes. Advanced Materials, 2018, 30, e1800818.	21.0	85
14	Physicochemical evolution of nascent soot particles in a laminar premixed flame: from nucleation to early growth. Combustion and Flame, 2015, 162, 3854-3863.	5.2	80
15	Bifacial, Color-Tunable Semitransparent Perovskite Solar Cells for Building-Integrated Photovoltaics. ACS Applied Materials & Interfaces, 2020, 12, 484-493.	8.0	80
16	Broadbandâ€Emitting 2â€‰D Hybrid Organicâ€“Inorganic Perovskite Based on Cyclohexaneâ€bis(methylamonium) Cation. ChemSusChem, 2017, 10, 3765-3772.	6.8	72
17	Additive Selection Strategy for High Performance Perovskite Photovoltaics. Journal of Physical Chemistry C, 2018, 122, 13884-13893.	3.1	71
18	Highly Efficient Semitransparent Perovskite Solar Cells for Four Terminal Perovskite-Silicon Tandems. ACS Applied Materials & Interfaces, 2019, 11, 34178-34187.	8.0	71

#	Article	IF	Citations
19	Designing the Perovskite Structural Landscape for Efficient Blue Emission. ACS Energy Letters, 2020, 5, 1593-1600.	17.4	71
20	Self-assembly of a robust hydrogen-bonded octylphosphonate network on cesium lead bromide perovskite nanocrystals for light-emitting diodes. Nanoscale, 2019, 11, 12370-12380.	5.6	67
21	Recovery of Shallow Charge-Trapping Defects in CsPbX₃ Nanocrystals through Specific Binding and Encapsulation with Amino-Functionalized Silanes. ACS Energy Letters, 2018, 3, 1409-1414.	17.4	60
22	Effect of Multiple Adduct Fullerenes on Microstructure and Phase Behavior of P3HT:Fullerene Blend Films for Organic Solar Cells. ACS Nano, 2012, 6, 3868-3875.	14.6	58
23	Cu-doped nickel oxide interface layer with nanoscale thickness for efficient and highly stable printable carbon-based perovskite solar cell. Solar Energy, 2019, 182, 225-236.	6.1	58
24	Roadmap for cost-effective, commercially-viable perovskite silicon tandems for the current and future PV market. Sustainable Energy and Fuels, 2020, 4, 852-862.	4.9	58
25	Improved Photovoltaic Efficiency and Amplified Photocurrent Generation in Mesoporous n = 1 Two-Dimensional Leadâ€“Iodide Perovskite Solar Cells. Chemistry of Materials, 2019, 31, 890-898.	6.7	57
26	Triplet Formation in Fullerene Multiâ€Adduct Blends for Organic Solar Cells and Its Influence on Device Performance. Advanced Functional Materials, 2010, 20, 2701-2708.	14.9	53
27	Realizing Reduced Imperfections via Quantum Dots Interdiffusion in High Efficiency Perovskite Solar Cells. Advanced Materials, 2020, 32, e2003296.	21.0	50
28	Measurements of Nanoparticles of Organic Carbon and Soot in Flames and Vehicle Exhausts. Environmental Science & Technology, 2008, 42, 859-863.	10.0	49
29	Facile Synthesis of a Furanâ€“Arylamine Holeâ€Transporting Material for Highâ€Efficiency, Mesoscopic Perovskite Solar Cells. Chemistry - A European Journal, 2015, 21, 15113-15117.	3.3	49
30	Determining the Exciton Diffusion Length in a Polyfluorene from Ultrafast Fluorescence Measurements of Polymer/Fullerene Blend Films. Journal of Physical Chemistry C, 2013, 117, 19832-19838.	3.1	48
31	Brightness Enhancement in Pulsed-Operated Perovskite Light-Emitting Transistors. ACS Applied Materials & Interfaces, 2018, 10, 37316-37325.	8.0	46
32	Extended Absorption Window and Improved Stability of Cesium-Based Triple-Cation Perovskite Solar Cells Passivated with Perfluorinated Organics. ACS Energy Letters, 2018, 3, 1068-1076.	17.4	44
33	Further details on particle inception and growth in premixed flames. Proceedings of the Combustion Institute, 2015, 35, 1795-1802.	3.9	43
34	Aggregation and interactions of C60 and C70 fullerenes in neat N-methylpyrrolidinone and in N-methylpyrrolidinone/toluene mixtures. Chemical Physics Letters, 2005, 405, 193-197.	2.6	42
35	Controlling the Interaction of Light with Polymer Semiconductors. Advanced Materials, 2013, 25, 4906-4911.	21.0	42
36	Coâ€Evaporated MAPbI₃ with Graded Fermi Levels Enables Highly Performing, Scalable, and Flexible pâ€iâ€n Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2103252.	14.9	40

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37	Mixed-Dimensional Naphthylmethylammonium-Methylammonium Lead Iodide Perovskites with Improved Thermal Stability. Scientific Reports, 2020, 10, 429.	3.3	39
38	Colorful Perovskite Solar Cells: Progress, Strategies, and Potentials. Journal of Physical Chemistry Letters, 2021, 12, 1321-1329.	4.6	39
39	Alkali Additives Enable Efficient Large Area (>55 cm²) Slotâ€Die Coated Perovskite Solar Modules. Advanced Functional Materials, 2022, 32, .	14.9	39
40	Engineering the Emission of Broadband 2D Perovskites by Polymer Distributed Bragg Reflectors. ACS Photonics, 2018, 5, 867-874.	6.6	38
41	Halide Perovskite Solar Cells for Building Integrated Photovoltaics: Transforming Building FaÃ§ades into Power Generators. Advanced Materials, 2022, 34, e2104661.	21.0	37
42	Facile synthesis of a hole transporting material with a silafluorene core for efficient mesoscopic CH₃NH₃PbI₃ perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 8750-8754.	10.3	36
43	Improved photovoltaic performance of triple-cation mixed-halide perovskite solar cells with binary trivalent metals incorporated into the titanium dioxide electron transport layer. Journal of Materials Chemistry C, 2019, 7, 5028-5036.	5.5	36
44	Excellent Intrinsic Longâ€Term Thermal Stability of Coâ€Evaporated MAPbI₃ Solar Cells at 85 Â°C. Advanced Functional Materials, 2021, 31, 2100557.	14.9	36
45	GaN Schottky Metalâ€“Semiconductorâ€“Metal UV Photodetectors on Si(111) Grown by Ammonia-MBE. IEEE Sensors Journal, 2017, 17, 72-77.	4.7	35
46	Inducing Panchromatic Absorption and Photoconductivity in Polycrystalline Molecular 1D Lead-Iodide Perovskites through Ï€-Stacked Viologens. Chemistry of Materials, 2018, 30, 5827-5830.	6.7	33
47	Performance Enhanced Light-Emitting Diodes Fabricated from Nanocrystalline CsPbBr₃ with In Situ Zn²⁺ Addition. ACS Applied Electronic Materials, 2020, 2, 4002-4011.	4.3	33
48	Simplified Architecture of a Fully Printable Perovskite Solar Cell Using a Thick Zirconia Layer. Energy Technology, 2017, 5, 1866-1872.	3.8	31
49	Broadband emission from zero-dimensional Cs₄PbI₆ perovskite nanocrystals. RSC Advances, 2020, 10, 13431-13436.	3.6	31
50	Time evolution of plasma afterglow produced by femtosecond laser pulses. Journal of Applied Physics, 2004, 96, 5450-5455.	2.5	30
51	Effect of Excess PbI₂ in Fully Printable Carbonâ€based Perovskite Solar Cells. Energy Technology, 2017, 5, 1880-1886.	3.8	30
52	Cathodoluminescence of Self-Organized Heterogeneous Phases in Multidimensional Perovskite Thin Films. Chemistry of Materials, 2017, 29, 10088-10094.	6.7	30
53	Ultrafast Transient Optical Studies of Charge Pair Generation and Recombination in Poly-3-Hexylthiophene(P3ht):[6,6]Phenyl C61 Butyric Methyl Acid Ester (PCBM) Blend Films. Journal of Physical Chemistry B, 2011, 115, 15174-15180.	2.6	29
54	Fast Fourier Transform and autocorrelation function for the analysis of complex mass spectra. International Journal of Mass Spectrometry, 2013, 338, 30-38.	1.5	29

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55	Design of Perovskite Thermally Coâ€Evaporated Highly Efficient Miniâ€Modules with High Geometrical Fill Factors. Solar Rrl, 2020, 4, 2000473.	5.8	29
56	Semitransparent Perovskite Solar Cells with > 13% Efficiency and 27% Transperancy Using Plasmonic Au Nanorods. ACS Applied Materials & Interfaces, 2022, 14, 11339-11349.	8.0	29
57	Evidence of fluorescent carbon nanoparticles produced in premixed flames by time-resolved fluorescence polarization anisotropy. Combustion and Flame, 2007, 151, 472-481.	5.2	28
58	Investigating the structureâ€“function relationship in triple cation perovskite nanocrystals for light-emitting diode applications. Journal of Materials Chemistry C, 2020, 8, 11805-11821.	5.5	27
59	Spectroscopic Evaluation of Mixing and Crystallinity of Fullerenes in Bulk Heterojunctions. Advanced Functional Materials, 2014, 24, 6972-6980.	14.9	26
60	Temperature and Electrical Poling Effects on Ionic Motion in MAPbI₃ Photovoltaic Cells. Advanced Energy Materials, 2017, 7, 1700265.	19.5	26
61	A Zero-Dimensional Mixed-Anion Hybrid Halogenobismuthate(III) Semiconductor: Structural, Optical, and Photovoltaic Properties. Inorganic Chemistry, 2018, 57, 10576-10586.	4.0	26
62	Low temperature, solution processed spinel NiCo2O4 nanoparticles as efficient hole transporting material for mesoscopic n-i-p perovskite solar cells. Solar Energy, 2020, 196, 367-378.	6.1	26
63	Carrier motion in as-spun and annealed P3HT:PCBM blends revealed by ultrafast optical electric field probing and Monte Carlo simulations. Physical Chemistry Chemical Physics, 2014, 16, 2686.	2.8	25
64	Advances and Potentials of NiO_x Surface Treatments for pâ^'iâ^'n Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100700.	5.8	25
65	Time resolved fluorescence polarization anisotropy of carbonaceous particles produced in combustion systems. Optics Express, 2005, 13, 5393.	3.4	24
66	Analysis of polycyclic aromatic hydrocarbon sequences in a premixed laminar flame by onâ€line timeâ€ofâ€flight mass spectrometry. Rapid Communications in Mass Spectrometry, 2008, 22, 573-581.	1.5	24
67	White light-emitting nanocomposites based on an oxadiazoleâ€“carbazole copolymer (POC) and InP/ZnS quantum dots. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	22
68	Detection of fluorescent nanoparticles in flame with femtosecond laser-induced fluorescence anisotropy. Optics Express, 2008, 16, 5623.	3.4	19
69	Ternary hybrid systems of P3HTâ€“CdSeâ€“WS₂nanotubes for photovoltaic applications. Physical Chemistry Chemical Physics, 2014, 16, 17998.	2.8	19
70	Hybrid 2D [Pb(CH₃NH₂)I₂]_n Coordination Polymer Precursor for Scalable Perovskite Deposition. ACS Energy Letters, 2020, 5, 2305-2312.	17.4	18
71	Lowâ€Temperature Atomic Layer Deposited Electron Transport Layers for Coâ€Evaporated Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100842.	5.8	16
72	Morphological and spectroscopic characterizations of inkjet-printed poly(3-hexylthiophene-2,5-diyl): Phenyl-C61-butyric acid methyl ester blends for organic solar cell applications. Thin Solid Films, 2014, 560, 14-19.	1.8	15

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73	Novel amphiphilic corannulene additive for moisture-resistant perovskite solar cells. Chemical Communications, 2020, 56, 11997-12000.	4.1	15
74	Coâ€Evaporated Perovskite Lightâ€Emitting Transistor Operating at Room Temperature. Advanced Electronic Materials, 2021, 7, 2100403.	5.1	15
75	Self-, Nitrogen-, and Oxygen-Broadening Coefficient Measurements in the Î½1 Band of H2O Using a Difference Frequency Generation Spectrometer at 3 Î¼m. Journal of Molecular Spectroscopy, 2002, 215, 244-250.	1.2	14
76	DLS measurements on nanoparticles produced in laminar premixed flames. Synthetic Metals, 2003, 139, 653-656.	3.9	14
77	Hot exciton cooling and multiple exciton generation in PbSe quantum dots. Physical Chemistry Chemical Physics, 2016, 18, 31107-31114.	2.8	14
78	Disordered Polymer Antireflective Coating for Improved Perovskite Photovoltaics. ACS Photonics, 2020, 7, 1971-1977.	6.6	14
79	Origin of Amplified Spontaneous Emission Degradation in MAPbBr₃ Thin Films under Nanosecond-UV Laser Irradiation. Journal of Physical Chemistry C, 2020, 124, 10696-10704.	3.1	14
80	Solution behaviour of C60 fullerene in N-Methylpyrrolidinone/toluene mixtures. Carbon, 2005, 43, 665-667.	10.3	13
81	Characterization of nanometric carbon materials by time-resolved fluorescence polarization anisotropy. Optics and Lasers in Engineering, 2006, 44, 732-746.	3.8	13
82	PbS nanocrystals in hybrid systems for solar cell applications. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 245-251.	1.8	13
83	Evidence for photo-induced charge separation between dye molecules adsorbed to aluminium oxide surfaces. Scientific Reports, 2016, 6, 21276.	3.3	13
84	Fourâ€Terminal Perovskite on Silicon Tandem Solar Cells Optimal Measurement Schemes. Energy Technology, 2020, 8, 1901267.	3.8	13
85	Interlayer Engineering for Flexible Large-Area Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 777-784.	5.1	13
86	Infrared analysis of nano organic particles produced in laminar flames. Applied Physics B: Lasers and Optics, 2006, 82, 155-160.	2.2	12
87	Responsivity drop due to conductance modulation in GaN metal-semiconductor-metal Schottky based UV photodetectors on Si(111). Semiconductor Science and Technology, 2016, 31, 095003.	2.0	12
88	Perovskite templating via a bathophenanthroline additive for efficient light-emitting devices. Journal of Materials Chemistry C, 2018, 6, 2295-2302.	5.5	12
89	Perturbation-Induced Seeding and Crystallization of Hybrid Perovskites over Surface-Modified Substrates for Optoelectronic Devices. ACS Applied Materials & Interfaces, 2019, 11, 27727-27734.	8.0	12
90	Vacuumâ€Processed Metal Halide Perovskite Lightâ€Emitting Diodes: Prospects and Challenges. ChemPlusChem, 2021, 86, 558-573.	2.8	12

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91	Characterization of ultrafast fluorescence from nanometric carbon particles. Journal of Optics, 2006, 8, S578-S584.	1.5	9
92	Electroluminescence and fluorescence emission of poly(n-vinylcarbazole) and poly(n-vinylcarbazole)-Ir(ppy)3-based organic light-emitting devices prepared with different solvents. Journal of Photonics for Energy, 2013, 3, 033599.	1.3	9
93	Photoresponse of pentaceneâ€based transistors. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 460-466.	1.8	9
94	Potassium Acetate-Based Treatment for Thermally Co-Evaporated Perovskite Solar Cells. Coatings, 2020, 10, 1163.	2.6	9
95	Improving the Performance of Carbon-Based Perovskite Solar Modules (70 cm2) by Incorporating Cesium Halide in Mesoporous TiO2. ACS Applied Energy Materials, 2021, 4, 249-258.	5.1	9
96	Efficient bandgap widening in co-evaporated MAPbI₃ perovskite. Sustainable Energy and Fuels, 2022, 6, 2428-2438.	4.9	8
97	Interfacial passivation with 4-chlorobenzene sulfonyl chloride for stable and efficient planar perovskite solar cells. Journal of Materials Chemistry C, 2022, 10, 9044-9051.	5.5	8
98	Amplified Spontaneous Emission Threshold Dependence on Determination Method in Dye-Doped Polymer and Lead Halide Perovskite Waveguides. Molecules, 2022, 27, 4261.	3.8	8
99	Detection and spectroscopy of the Î½1+Î½3 band of N2O by difference-frequency spectrometer at 3 Î¼m. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2002, 58, 2481-2488.	3.9	7
100	Preparation and characterization of novel nanocomposites of WS2 nanotubes and polyfluorene conductive polymer. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2278-2283.	1.8	6
101	Investigation of electronic band structure and charge transfer mechanism of oxidized three-dimensional graphene as metal-free anodes material for dye sensitized solar cell application. Chemical Physics Letters, 2017, 685, 442-450.	2.6	6
102	Picosecond Charge Localization Dynamics in CH3NH3PbI3 Perovskite Probed by Infrared-Activated Vibrations. Journal of Physical Chemistry Letters, 2021, 12, 4428-4433.	4.6	6
103	Exciton Dynamics in Hybrid Polymer/QD Blends. Energy Procedia, 2014, 44, 167-175.	1.8	5
104	Influence of ligand exchange on the electrical transport properties of PbS nanocrystals. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2677-2685.	1.8	5
105	Spectroscopic investigation of flame synthesized carbon nanoparticle/P3HT blends. Carbon, 2015, 94, 955-961.	10.3	5
106	Oxadiazole-carbazole polymer (POC)-Ir(ppy) 3 tunable emitting composites. Optical Materials, 2017, 66, 166-170.	3.6	5
107	Regulating Vertical Domain Distribution in Ruddlesdenâ€“Popper Perovskites for Electroluminescence Devices. Journal of Physical Chemistry Letters, 2019, 10, 7949-7955.	4.6	5
108	Effects of Allâ€Organic Interlayer Surface Modifiers on the Efficiency and Stability of Perovskite Solar Cells. ChemSusChem, 2021, 14, 1524-1533.	6.8	5

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109	Advances and Potentials of NiO_x Surface Treatments for pâ^'iâ^'n Perovskite Solar Cells. Solar Rrl, 2022, 6, .	5.8	5
110	In situdetection of soot nanoparticles by time-resolved fluorescence analysis. Journal of Optics, 2008, 10, 064016.	1.5	4
111	Microscopic and spectroscopic investigation of MoS2 nanotubes/P3HT nanocomposites. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2335-2340.	1.8	4
112	Relaxation lifetimes of plasmonically enhanced hybrid gold-carbon nanotubes systems. Nanotechnology, 2017, 28, 255202.	2.6	4
113	Time-resolved fluorescence polarization anisotropy of multimodal samples: the asphaltene case. Applied Physics B: Lasers and Optics, 2008, 90, 61-67.	2.2	3
114	Insights on photophysical proprieties of DCM dye in PVK host matrix. Polymer Composites, 2013, 34, 1500-1505.	4.6	3
115	AC-driven perovskite light-emitting field-effect transistors. , 2017, , .		3
116	Perovskite Solar Modules. Solar Rrl, 2022, 6, .	5.8	3
117	Solvent effects on spectral emission of PVK and PVK-Ir(ppy) 3 based OLEDs. , 2012, , .		2
118	Structural morphological and optical properties of P3HT/CdSe/WS2 ternary composites for hybrid organic/inorganic photovoltaics. Journal of Materials Science, 2017, 52, 9573-9583.	3.7	2
119	Small-area Passivated Contact monoPoly^{TM} Silicon Solar Cells for Tandem Device Integration. , 2019, , .		2
120	Charge Carrier Dynamics in Co-evaporated MAPbI₃ with a Gradient in Composition. ACS Applied Energy Materials, 2022, 5, 7049-7055.	5.1	2
121	Photovoltaics: Temperature and Electrical Poling Effects on Ionic Motion in MAPbI₃ Photovoltaic Cells (Adv. Energy Mater. 18/2017). Advanced Energy Materials, 2017, 7, .	19.5	1
122	Diffusivity in water and fluorescence properties ofÂorganic nanoparticles produced inÂflames. Applied Physics B: Lasers and Optics, 2011, 102, 711-715.	2.2	0
123	Photoluminescence and energy transfer in PVK/DCM blends. , 2012, , .		0
124	Nanopatterning-enhanced perovskite luminophores. , 2017, , .		0
125	Ammonium sulfate treatment at TiO2/perovskite interface boosts operational stability of perovskite solar cells. Journal of Materials Chemistry C, 0, , .	5.5	0
126	Coâ€Evaporated MAPbI₃: Excellent Intrinsic Longâ€Term Thermal Stability of Coâ€Evaporated MAPbI₃ Solar Cells at 85 Â°C (Adv. Funct. Mater. 22/2021). Advanced Functional Materials, 2021, 31, 2170155.	14.9	0

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127	Synchronized Injection of Charge Carriers in Perovskite Light Emitting Transistors. , 2021, , .		0
128	Double-Pulse Operation Enhances Brightness of Hybrid Perovskite Light Emitting Transistor. , 2021, , .		0
129	Large Area Perovskite Solar Cells and Mini-Modules by Thermal Co-Evaporation. , 0, , .		0
130	Perovskite Solar Mini-Modules. Europhysics News, 2021, 52, 16-19.	0.3	0
131	Co-evaporated perovskites solar cells and minimodules: Colored, stable and flexible. , 0, , .		0