Richard Murdey

List of Publications by Year
in descending order

48 papers	1,422 citations	361413 20 h-index	330143 37 g-index
54 all docs	54 docs citations	54 times ranked	1829 citing authors

#	Article	IF	Citations
1	Sn(IV)-free tin perovskite films realized by in situ Sn(0) nanoparticle treatment of the precursor solution. Nature Communications, 2020, 11, 3008.	12.8	196
2	Optimized carrier extraction at interfaces for 23.6% efficient tinâ€“lead perovskite solar cells. Energy and Environmental Science, 2022, 15, 2096-2107.	30.8	172
3	Vibronic Coupling in the Ground and Excited States of Oligoacene Cationsâ€. Journal of Physical Chemistry B, 2006, 110, 18904-18911.	2.6	140
4	Leadâ€Free Solar Cells based on Tin Halide Perovskite Films with High Coverage and Improved Aggregation. Angewandte Chemie - International Edition, 2018, 57, 13221-13225.	13.8	111
5	Structure and mechanical properties of arc evaporated Tiâ€“Alâ€“Oâ€“N thin films. Surface and Coatings Technology, 2007, 201, 6392-6403.	4.8	91
6	Frontier Electronic Structures in Fluorinated Copper Phthalocyanine Thin Films Studied Using Ultraviolet and Inverse Photoemission Spectroscopies. Molecular Crystals and Liquid Crystals, 2006, 455, 211-218.	0.9	57
7	Charge Injection Barrier Heights Across Multilayer Organic Thin Films. Japanese Journal of Applied Physics, 2005, 44, 3751-3756.	1.5	47
8	A Purified, Solventâ€Intercalated Precursor Complex for Wideâ€Processâ€Window Fabrication of Efficient Perovskite Solar Cells and Modules. Angewandte Chemie - International Edition, 2019, 58, 9389-9393.	13.8	46
9	Core excitations of naphthalene: Vibrational structure versus chemical shifts. Journal of Chemical Physics, 2004, 121, 5733-5739.	3.0	45
10	Alternative Face-on Thin Film Structure of Pentacene. Scientific Reports, 2019, 9, 579.	3.3	40
11	Molecular Orientation Change in Naphthalene Diimide Thin Films Induced by Removal of Thermally Cleavable Substituents. Chemistry of Materials, 2019, 31, 1729-1737.	6.7	40
12	Calorimetry of Polymer Metallization:Â Copper, Calcium, and Chromium on PMDA-ODA Polyimide. Journal of the American Chemical Society, 2003, 125, 3995-3998.	13.7	37
13	Leadâ€Free Solar Cells based on Tin Halide Perovskite Films with High Coverage and Improved Aggregation. Angewandte Chemie, 2018, 130, 13405-13409.	2.0	36
14	Materials Chemistry Approach for Efficient Lead-Free Tin Halide Perovskite Solar Cells. ACS Applied Electronic Materials, 2020, 2, 3794-3804.	4.3	36
15	Mixed leadâ€“tin perovskite films with >7 Î¼s charge carrier lifetimes realized by maltol post-treatment. Chemical Science, 2021, 12, 13513-13519.	7.4	36
16	Iodine-rich mixed composition perovskites optimised for tin(<scp>iv</scp>) oxide transport layers: the influence of halide ion ratio, annealing time, and ambient air aging on solar cell performance. Journal of Materials Chemistry A, 2019, 7, 16947-16953.	10.3	32
17	Quantitatively identical orientation-dependent ionization energy and electron affinity of diindenoperylene. Applied Physics Letters, 2013, 103, .	3.3	27
18	Direct observation of the energy gap in lutetium bisphthalocyanine thin films. Synthetic Metals, 2009, 159, 1677-1681.	3.9	26

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19	Accurate Molecular Orientation Analysis Using Infrared p-Polarized Multiple-Angle Incidence Resolution Spectrometry (pMAIRS) Considering the Refractive Index of the Thin Film Sample. Applied Spectroscopy, 2017, 71, 1242-1248.	2.2	22
20	Influence of Alkoxy Chain Length on the Properties of Twoâ€Dimensionally Expanded Azuleneâ€Coreâ€Based Holeâ€Transporting Materials for Efficient Perovskite Solar Cells. Chemistry - A European Journal, 2019, 25, 6741-6752.	3.3	21
21	How to Make Dense and Flat Perovskite Layers for >20% Efficient Solar Cells: Oriented, Crystalline Perovskite Intermediates and Their Thermal Conversion. Bulletin of the Chemical Society of Japan, 2019, 92, 1972-1979.	3.2	17
22	Donorâ€"acceptor polymers containing thiazole-fused benzothiadiazole acceptor units for organic solar cells. RSC Advances, 2019, 9, 7107-7114.	3.6	17
23	Additive-free, Cost-Effective Hole-Transporting Materials for Perovskite Solar Cells Based on Vinyl Triarylamines. ACS Applied Materials & Interfaces, 2020, 12, 32994-33003.	8.0	17
24	An Accurate Calculation of Electronic Contribution to Static Permittivity Tensor for Organic Molecular Crystals on the Basis of the Charge Response Kernel Theory. Journal of Physical Chemistry A, 2009, 113, 9207-9212.	2.5	14
25	Near-Ultraviolet Transparent Organic Hole-Transporting Materials Containing Partially Oxygen-Bridged Triphenylamine Skeletons for Efficient Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 1484-1495.	5.1	11
26	Phthalimideâ€Based Transparent Electronâ€Transport Materials with Orientedâ€Amorphous Structures: Preparation from Solutionâ€Processed Precursor Films. ChemPlusChem, 2019, 84, 1396-1404.	2.8	10
27	Adsorption Hysteresis and Interparticle Capillary Condensation in a Nonporous Carbon Black. Langmuir, 1996, 12, 6501-6505.	3.5	7
28	Adsorption Hysteresis and the Pore Size Distribution of a Microporous Silica Gel. Langmuir, 1994, 10, 3842-3844.	3.5	6
29	Impact of Kinetically Restricted Structure on Thermal Conversion of Zinc Tetraphenylporphyrin Thin Films to the Triclinic and Monoclinic Phases. Journal of Physical Chemistry C, 2018, 122, 4540-4545.	3.1	6
30	Starburst Carbazole Derivatives as Efficient Hole Transporting Materials for Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100877.	5.8	6
31	Electronic structure of a novel alkylidene fluorene polymer in the pristine state. Chemical Physics Letters, 2004, 385, 184-188.	2.6	5
32	Thermally activated electrical conductivity of thin films of bis(phthalocyaninato)terbium(III) double decker complex. Thin Solid Films, 2018, 646, 17-20.	1.8	5
33	A Purified, Solventâ€Intercalated Precursor Complex for Wideâ€Processâ€Window Fabrication of Efficient Perovskite Solar Cells and Modules. Angewandte Chemie, 2019, 131, 9489-9493.	2.0	5
34	Temperature-dependent self absorption of the 3P0â†'3H4 transition in Gd3Ga5O12:Pr3+. Optical Materials, 1996, 6, 203-209.	3.6	4
35	Spontaneous buildup of surface potential with a thin film of a zwitterionic molecule giving noncentrosymmetric crystal structure. Applied Physics Letters, 2009, 95, 182901.	3.3	4
36	In situ conductance measurements of copper phthalocyanine thin film growth on sapphire [0001]. Journal of Chemical Physics, 2011, 134, 234702.	3.0	4

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37	Interpretation of the thermal activation energy of conduction for molecular semiconductor thin films with blocking contacts. Japanese Journal of Applied Physics, 2014, 53, 05FY04.	1.5	4
38	Hole-Transporting Polymers Containing Partially Oxygen-Bridged Triphenylamine Units and Their Application for Perovskite Solar Cells. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2020, 33, 505-516.	0.3	4
39	Interfacial charge injection barriers in organic light-emitting diodes: the effect of thin interlayers of organic donor-acceptor molecules TTF and TCNQ. , 2004, , .		3
40	An atom-transparent photon block for metal-atom deposition from high-temperature ovens. Review of Scientific Instruments, 2005, 76, 023911.	1.3	3
41	Voltage stress induced reversible diode behavior in pentacene thin films. Journal of Chemical Physics, 2012, 137, 234703.	3.0	2
42	Photocurrent Action Spectra of Organic Semiconductors. , 2015, , 627-652.		2
43	Formation of <i>trans</i>-Poly(thienylenevinylene) Thin Films by Solid-State Thermal Isomerization. Chemistry of Materials, 2021, 33, 5631-5638.	6.7	2
44	Operational stability, low light performance, and long-lived transients in mixed-halide perovskite solar cells with a monolayer-based hole extraction layer. Solar Energy Materials and Solar Cells, 2022, 245, 111885.	6.2	2
45	Decay Mechanism of Spontaneously Built-up Surface Potential in a Thin Film of a Zwitterionic Molecule Having Noncentrosymmetric Crystal Structure. Journal of Physical Chemistry C, 2011, 115, 2356-2359.	3.1	0
46	Realizing Efficient and Reproducible Lead-free Perovskite Solar Cells with Purified Precursor Materials and Modified Solution Process. , 0, , .		0
47	Light Intensity Dependence Study of Mixed-composition Perovskite Solar Cells. , 0, , .		0
48	Transparent Hole-Transporting Materials Containing Partially Oxygen-Bridged Triphenylamine Skeletons for Efficient Perovskite Solar Cells. ECS Meeting Abstracts, 2020, MA2020-02, 1867-1867.	0.0	0