

Marc A Baldo

List of Publications by Year in descending order

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61
papers

10,990
citations

87843

38
h-index

143943

57
g-index

63
all docs

63
docs citations

63
times ranked

9293
citing authors

#	ARTICLE	IF	CITATIONS
1	Nearly 100% internal phosphorescence efficiency in an organic light-emitting device. <i>Journal of Applied Physics</i> , 2001, 90, 5048-5051.	1.1	3,189
2	Endothermic energy transfer: A mechanism for generating very efficient high-energy phosphorescent emission in organic materials. <i>Applied Physics Letters</i> , 2001, 79, 2082-2084.	1.5	1,029
3	External Quantum Efficiency Above 100% in a Singlet-Exciton-Fission-Based Organic Photovoltaic Cell. <i>Science</i> , 2013, 340, 334-337.	6.0	783
4	High-Efficiency Organic Solar Concentrators for Photovoltaics. <i>Science</i> , 2008, 321, 226-228.	6.0	632
5	Solid-state infrared-to-visible upconversion sensitized by colloidal nanocrystals. <i>Nature Photonics</i> , 2016, 10, 31-34.	15.6	418
6	Electroluminescence mechanisms in organic light emitting devices employing a europium chelate doped in a wide energy gap bipolar conducting host. <i>Journal of Applied Physics</i> , 2000, 87, 8049-8055.	1.1	408
7	A transferable model for singlet-fission kinetics. <i>Nature Chemistry</i> , 2014, 6, 492-497.	6.6	402
8	Thermally Activated Delayed Fluorescence Materials Based on Homoconjugation Effect of Donor-Acceptor Triptycenes. <i>Journal of the American Chemical Society</i> , 2015, 137, 11908-11911.	6.6	331
9	Singlet Exciton Fission Photovoltaics. <i>Accounts of Chemical Research</i> , 2013, 46, 1300-1311.	7.6	271
10	Visualization of exciton transport in ordered and disordered molecular solids. <i>Nature Communications</i> , 2014, 5, 3646.	5.8	270
11	Exploiting chemistry and molecular systems for quantum information science. <i>Nature Reviews Chemistry</i> , 2020, 4, 490-504.	13.8	247
12	Energy harvesting of non-emissive triplet excitons in tetracene by emissive PbS nanocrystals. <i>Nature Materials</i> , 2014, 13, 1039-1043.	13.3	235
13	Sensitization of silicon by singlet exciton fission in tetracene. <i>Nature</i> , 2019, 571, 90-94.	13.7	221
14	High-efficiency yellow double-doped organic light-emitting devices based on phosphor-sensitized fluorescence. <i>Applied Physics Letters</i> , 2001, 79, 1045-1047.	1.5	199
15	Room temperature triplet state spectroscopy of organic semiconductors. <i>Scientific Reports</i> , 2014, 4, 3797.	1.6	180
16	Singlet Exciton Fission in Nanostructured Organic Solar Cells. <i>Nano Letters</i> , 2011, 11, 1495-1498.	4.5	170
17	All graphene electromechanical switch fabricated by chemical vapor deposition. <i>Applied Physics Letters</i> , 2009, 95, 183105.	1.5	145
18	Speed Limit for Triplet-Exciton Transfer in Solid-State PbS Nanocrystal-Sensitized Photon Upconversion. <i>ACS Nano</i> , 2017, 11, 7848-7857.	7.3	130

#	ARTICLE	IF	CITATIONS
19	Triplet-Sensitization by Lead Halide Perovskite Thin Films for Near-Infrared-to-Visible Upconversion. ACS Energy Letters, 2019, 4, 888-895.	8.8	117
20	Triplet Exciton Dissociation in Singlet Exciton Fission Photovoltaics. Advanced Materials, 2012, 24, 6169-6174.	11.1	108
21	Shorter Exciton Lifetimes via an External Heavy-Atom Effect: Alleviating the Effects of Bimolecular Processes in Organic Light-Emitting Diodes. Advanced Materials, 2017, 29, 1701987.	11.1	90
22	Spin-dependent charge transfer state design rules in organic photovoltaics. Nature Communications, 2015, 6, 6415.	5.8	83
23	Solid state photon upconversion utilizing thermally activated delayed fluorescence molecules as triplet sensitizer. Applied Physics Letters, 2015, 107, .	1.5	80
24	Singlet fission efficiency in tetracene-based organic solar cells. Applied Physics Letters, 2014, 104, .	1.5	79
25	Highly efficient, dual state emission from an organic semiconductor. Applied Physics Letters, 2013, 103, .	1.5	76
26	Recent progress in the understanding of exciton dynamics within phosphorescent OLEDs. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 2341-2353.	0.8	74
27	Singlet Exciton Fission in a Hexacene Derivative. Advanced Materials, 2013, 25, 1445-1448.	11.1	73
28	Slow light enhanced singlet exciton fission solar cells with a 126% yield of electrons per photon. Applied Physics Letters, 2013, 103, .	1.5	72
29	Magnetic Domain Wall Based Synaptic and Activation Function Generator for Neuromorphic Accelerators. Nano Letters, 2020, 20, 1033-1040.	4.5	72
30	Molecular Design of Deep Blue Thermally Activated Delayed Fluorescence Materials Employing a Homoconjugative Triptycene Scaffold and Dihedral Angle Tuning. Chemistry of Materials, 2018, 30, 1462-1466.	3.2	71
31	Luminescent Solar Concentrators Employing Phycobilisomes. Advanced Materials, 2009, 21, 3181-3185.	11.1	66
32	Using lead chalcogenide nanocrystals as spin mixers: a perspective on near-infrared-to-visible upconversion. Dalton Transactions, 2018, 47, 8509-8516.	1.6	65
33	Strategies for High-Performance Solid-State Triplet-Triplet-Annihilation-Based Photon Upconversion. Advanced Materials, 2020, 32, e1908175.	11.1	58
34	Nanostructured Singlet Fission Photovoltaics Subject to Triplet-Charge Annihilation. Advanced Materials, 2014, 26, 1366-1371.	11.1	51
35	The Role of Electron-Hole Separation in Thermally Activated Delayed Fluorescence in Donor-Acceptor Blends. Journal of Physical Chemistry C, 2015, 119, 25591-25597.	1.5	45
36	Red Phosphorescence from Benzo[2,1,3]thiadiazoles at Room Temperature. Journal of Organic Chemistry, 2016, 81, 4789-4796.	1.7	43

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37	Large Single Crystals of Two-Dimensional π -Conjugated Metal-Organic Frameworks via Biphasic Solution-Solid Growth. <i>ACS Central Science</i> , 2021, 7, 104-109.	5.3	40
38	Interference-enhanced infrared-to-visible upconversion in solid-state thin films sensitized by colloidal nanocrystals. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	39
39	A path to practical Solar Pumped Lasers via Radiative Energy Transfer. <i>Scientific Reports</i> , 2015, 5, 14758.	1.6	35
40	Phosphorescence as a probe of exciton formation and energy transfer in organic light emitting diodes. <i>Physica Status Solidi A</i> , 2004, 201, 1205-1214.	1.7	34
41	Nanocrystal-Sensitized Infrared-to-Visible Upconversion in a Microcavity under Subsolar Flux. <i>Nano Letters</i> , 2021, 21, 1011-1016.	4.5	26
42	Large Increase in External Quantum Efficiency by Dihedral Angle Tuning in a Sky-Blue Thermally Activated Delayed Fluorescence Emitter. <i>Advanced Optical Materials</i> , 2019, 7, 1900476.	3.6	25
43	Light-recycling within electronic displays using deep red and near infrared photoluminescent polarizers. <i>Energy and Environmental Science</i> , 2013, 6, 72-75.	15.6	24
44	Discovery of blue singlet exciton fission molecules via a high-throughput virtual screening and experimental approach. <i>Journal of Chemical Physics</i> , 2019, 151, 121102.	1.2	24
45	A Heterogeneous Kinetics Model for Triplet Exciton Transfer in Solid-State Upconversion. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3147-3152.	2.1	24
46	Dominance of Exciton Lifetime in the Stability of Phosphorescent Dyes. <i>Advanced Optical Materials</i> , 2019, 7, 1901048.	3.6	23
47	Interfacial Trap-Assisted Triplet Generation in Lead Halide Perovskite Sensitized Solid-State Upconversion. <i>Advanced Materials</i> , 2021, 33, e2100854.	11.1	18
48	The Spatial Resolution Limit for an Individual Domain Wall in Magnetic Nanowires. <i>Nano Letters</i> , 2017, 17, 5869-5874.	4.5	14
49	3D-Printed Autonomous Sensory Composites. <i>Advanced Materials Technologies</i> , 2017, 2, 1600257.	3.0	13
50	Donor-Acceptor Iptycenes with Thermally Activated Delayed Fluorescence. <i>European Journal of Organic Chemistry</i> , 2017, 2017, 4846-4851.	1.2	13
51	Polymethyl methacrylate/hydrogen silsesquioxane bilayer resist electron beam lithography process for etching 25%nm wide magnetic wires. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2014, 32, .	0.6	12
52	A logic-in-memory design with 3-terminal magnetic tunnel junction function evaluators for convolutional neural networks. , 2017, , .		12
53	Link between hopping models and percolation scaling laws for charge transport in mixtures of small molecules. <i>AIP Advances</i> , 2016, 6, .	0.6	8
54	Magnetic-Field-Switchable Laser via Optical Pumping of Rubrene. <i>Advanced Materials</i> , 2021, , 2103870.	11.1	6

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55	Solid-state infrared-to-visible upconversion for sub-bandgap sensitization of photovoltaics. , 2018, , .		5
56	Designing a Broadband Pump for High-Quality Micro-Lasers via Modified Net Radiation Method. Scientific Reports, 2016, 6, 38576.	1.6	4
57	Effect of Magnetostatic Interactions on Stochastic Domain Wall Motion in Sub-100Ånm Wide Nanowires. IEEE Magnetics Letters, 2018, 9, 1-5.	0.6	3
58	Polymerization and Depolymerization of Photoluminescent Polyarylene Chalcogenides. Macromolecules, 2021, 54, 6698-6704.	2.2	3
59	Investigation of External Quantum Efficiency Roll-Off in OLEDs Using the Mean-Field Steady-State Kinetic Model. Journal of Physical Chemistry C, 2020, 124, 14424-14431.	1.5	2
60	Organic Semiconductors: Dry Lithography of Large Area, Thin Film Organic Semiconductors Using Frozen CO ₂ Resists (Adv. Mater. 46/2012). Advanced Materials, 2012, 24, 6116-6116.	11.1	0
61	3D Printing: 3D Printed Autonomous Sensory Composites (Adv. Mater. Technol. 3/2017). Advanced Materials Technologies, 2017, 2, .	3.0	0