Matthew P Aldred

List of Publications by Year
in descending order

76 papers	5,935 citations	87888 38 h-index	82547 72 g-index
76 all docs	76 docs citations	76 times ranked	5800 citing authors

#	Article	IF	Citations
1	A Multiâ€Stimuliâ€Responsive Molecule with Responses to Light, Oxygen, and Mechanical Stress through Flexible Tuning of Triplet Excitons. Advanced Optical Materials, 2021, 9, 2001550.	7.3	32
2	Carborane photochromism: a fatigue resistant carborane switch. Chemical Communications, 2021, 57, 9466-9469.	4.1	6
3	Rigid Polyimides with Thermally Activated Delayed Fluorescence for Polymer Lightâ€Emitting Diodes with High External Quantum Efficiency up to 21â€‰%. Angewandte Chemie - International Edition, 2021, 60, 7220-7226.	13.8	34
4	Rigid Polyimides with Thermally Activated Delayed Fluorescence for Polymer Lightâ€Emitting Diodes with High External Quantum Efficiency up to 21â€‰%. Angewandte Chemie, 2021, 133, 7296-7302.	2.0	6
5	Achieving white-light emission in a single-component polymer with halogen-assisted interaction. Science China Chemistry, 2021, 64, 467-477.	8.2	10
6	A Facile Strategy for Non-fluorinated Intrinsic Low-k and Low-loss Dielectric Polymers: Valid Exploitation of Secondary Relaxation Behaviors. Chinese Journal of Polymer Science (English Edition), 2020, 38, 213-219.	3.8	24
7	Selective Expression of Chromophores in a Single Molecule: Soft Organic Crystals Exhibiting Fullâ€Colour Tunability and Dynamic Tripletâ€Exciton Behaviours. Angewandte Chemie, 2020, 132, 3768-3774.	2.0	24
8	Selective Expression of Chromophores in a Single Molecule: Soft Organic Crystals Exhibiting Fullâ€Colour Tunability and Dynamic Tripletâ€Exciton Behaviours. Angewandte Chemie - International Edition, 2020, 59, 3739-3745.	13.8	128
9	Preserving High-Efficiency Luminescence Characteristics of an Aggregation-Induced Emission-Active Fluorophore in Thermostable Amorphous Polymers. ACS Applied Materials & Interfaces, 2020, 12, 34198-34207.	8.0	20
10	An exceptionally flexible hydrogen-bonded organic framework with large-scale void regulation and adaptive guest accommodation abilities. Nature Communications, 2019, 10, 3074.	12.8	142
11	A sterically hindered asymmetric Dâ€“Aâ€“Dâ€² thermally activated delayed fluorescence emitter for highly efficient non-doped organic light-emitting diodes. Chemical Science, 2019, 10, 8129-8134.	7.4	102
12	The methylation effect in prolonging the pure organic room temperature phosphorescence lifetime. Chemical Science, 2019, 10, 179-184.	7.4	107
13	Achieving Dualâ€Emissive and Timeâ€Dependent Evolutive Organic Afterglow by Bridging Molecules with Weak Intermolecular Hydrogen Bonding. Advanced Optical Materials, 2019, 7, 1801593.	7.3	101
14	Simultaneous enhancement in performance and UV-light stability of organicâ€“inorganic perovskite solar cells using a samarium-based down conversion material. Journal of Materials Chemistry A, 2019, 7, 322-329.	10.3	42
15	Two-photon-excited ultralong organic room temperature phosphorescence by dual-channel triplet harvesting. Chemical Science, 2019, 10, 7352-7357.	7.4	98
16	Facile Strategy for Intrinsic Low-k Dielectric Polymers: Molecular Design Based on Secondary Relaxation Behavior. Macromolecules, 2019, 52, 4601-4609.	4.8	91
17	Highly-efficient fully non-doped white organic light-emitting diodes consisting entirely of thermally activated delayed fluorescence emitters. Journal of Materials Chemistry C, 2018, 6, 3226-3232.	5.5	43
18	Flexible Multifunctional Aromatic Polyimide Film: Highly Efficient Photoluminescence, Resistive Switching Characteristic, and Electroluminescence. ACS Applied Materials & Interfaces, 2018, 10, 11430-11435.	8.0	33

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19	Metal Oxide CrO_x as a Promising Bilayer Electron Transport Material for Enhancing the Performance Stability of Planar Perovskite Solar Cells. Solar Rrl, 2018, 2, 1700245.	5.8	16
20	Recent advances in mechano-responsive luminescence of tetraphenylethylene derivatives with aggregation-induced emission properties. Materials Chemistry Frontiers, 2018, 2, 861-890.	5.9	339
21	Mechano-induced persistent room-temperature phosphorescence from purely organic molecules. Chemical Science, 2018, 9, 3782-3787.	7.4	97
22	Efficient triplet harvesting in fluorescenceâ€“TADF hybrid warm-white organic light-emitting diodes with a fully non-doped device configuration. Journal of Materials Chemistry C, 2018, 6, 4257-4264.	5.5	41
23	An efficient yellow thermally activated delayed fluorescence emitter with universal applications in both doped and non-doped organic light-emitting diodes. Materials Chemistry Frontiers, 2018, 2, 1017-1023.	5.9	39
24	Metal Oxide CrOx as a Promising Bilayer Electron Transport Material for Enhancing the Performance Stability of Planar Perovskite Solar Cells (Solar RRL 6â•2018). Solar Rrl, 2018, 2, 17700176.	5.8	0
25	Design, synthesis and photochromism studies of thienyl containing triarylethylene derivatives and their applications in real-time photoresponsive surfaces. Journal of Materials Chemistry C, 2018, 6, 8832-8838.	5.5	37
26	Alkyl Chain Introduction: Inâ€…Situ Solarâ€Renewable Colorful Organic Mechanoluminescence Materials. Angewandte Chemie, 2018, 130, 12909-12914.	2.0	20
27	Alkyl Chain Introduction: Inâ€…Situ Solarâ€Renewable Colorful Organic Mechanoluminescence Materials. Angewandte Chemie - International Edition, 2018, 57, 12727-12732.	13.8	103
28	Weak interactions but potent effect: tunable mechanoluminescence by adjusting intermolecular Câ€“Hâ‹¯Ïâ€ interactions. Chemical Science, 2018, 9, 5787-5794.	7.4	118
29	Recent advances in organic thermally activated delayed fluorescence materials. Chemical Society Reviews, 2017, 46, 915-1016.	38.1	1,815
30	A new approach to switchable photochromic materials by combining photochromism and piezochromism together in an AIE-active molecule. Materials Chemistry Frontiers, 2017, 1, 1900-1904.	5.9	56
31	Hydrogen bonding-assisted loosely packed crystals of a diaminomaleonitrile-modified tetraphenylethene compound and their photo- and mechano-responsive properties. Journal of Materials Chemistry C, 2017, 5, 11867-11872.	5.5	25
32	Hydrogenâ€Bondingâ€Assisted Intermolecular Charge Transfer: A New Strategy to Design Singleâ€Component Whiteâ€Lightâ€Emitting Materials. Advanced Functional Materials, 2017, 27, 1703918.	14.9	84
33	Intrinsic low dielectric constant polyimides: relationship between molecular structure and dielectric properties. Journal of Materials Chemistry C, 2017, 5, 12807-12815.	5.5	110
34	White-light emission from a single heavy atom-free molecule with room temperature phosphorescence, mechanochromism and thermochromism. Chemical Science, 2017, 8, 1909-1914.	7.4	168
35	Synthesis of Fluoreneâ€Bridged Arylene Vinylene Fluorophores: Effects of Endâ€Capping Groups on the Optical Properties, Aggregation Induced Emission. Chinese Journal of Chemistry, 2015, 33, 939-947.	4.9	10
36	Efficient green-red piezofluorochromism of bisanthracene-modified dibenzofulvene. RSC Advances, 2015, 5, 1079-1082.	3.6	22

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37	Water-Soluble Polymeric Photoswitching Dyads Impart Super-Resolution Lysosome Highlighters. Macromolecules, 2014, 47, 8594-8601.	4.8	40
38	Photocontrolled Intramolecular Charge/Energy Transfer and Fluorescence Switching of Tetraphenylethenеâ€Dithienylethenеâ€Perylenemonoimide Triad with Donorâ€“Bridgeâ€“Acceptor Structure. Chemistry - an Asian Journal, 2014, 9, 104-109.	3.3	38
39	Spiropyran-based biodegradable polymer all-optical transistors integrate the switching and modulation of visible light frequency. Chemical Communications, 2014, 50, 2664.	4.1	18
40	Reversible Fluorescence Switching of Spiropyran-Conjugated Biodegradable Nanoparticles for Super-Resolution Fluorescence Imaging. Macromolecules, 2014, 47, 1543-1552.	4.8	75
41	Tetraphenylethene-decorated carbazoles: synthesis, aggregation-induced emission, photo-oxidation and electroluminescence. Journal of Materials Chemistry C, 2014, 2, 7001-7012.	5.5	53
42	General Synthetic Approach toward Geminal-Substituted Tetraarylethene Fluorophores with Tunable Emission Properties: X-ray Crystallography, Aggregation-Induced Emission and Piezofluorochromism. Chemistry of Materials, 2014, 26, 4433-4446.	6.7	109
43	Direct validation of the restriction of intramolecular rotation hypothesis via the synthesis of novel ortho-methyl substituted tetraphenylethenes and their application in cell imaging. Chemical Communications, 2014, 50, 12058-12060.	4.1	132
44	Condensed state fluorescence switching of hexaarylbiimidazole-tetraphenylethene conjugate for super-resolution fluorescence nanolocalization. Frontiers of Optoelectronics, 2013, 6, 458-467.	3.7	4
45	Optical properties and red to near infrared piezo-responsive fluorescence of a tetraphenylethenеâ€“perylenebisimideâ€“tetraphenylethene triad. Journal of Materials Chemistry C, 2013, 1, 6709.	5.5	64
46	Aggregation-induced emission logic gates based on metal ion sensing of phenanthrolineâ€“tetraphenylethene conjugates. Journal of Materials Chemistry C, 2013, 1, 7519.	5.5	41
47	Photoswitchable aggregation-induced emission of a dithienylethenеâ€“tetraphenylethene conjugate for optical memory and super-resolution imaging. RSC Advances, 2013, 3, 8967.	3.6	97
48	Design, synthesis and optical properties of a green fluorescent photoswitchable hexaarylbiimidazole (HABI) with non-conjugated design. RSC Advances, 2013, 3, 9167.	3.6	19
49	Biodegradable polymer nanoparticles with photoswitchable fluorescence for super-resolution bioimaging. , 2013, , .		0
50	Spiropyran-Based Molecular Photoswitches. Chinese Journal of Organic Chemistry, 2013, 33, 927.	1.3	6
51	Optical Properties and Photoâ€Oxidation of Tetraphenylethenеâ€Based Fluorophores. Chemistry - A European Journal, 2012, 18, 16037-16045.	3.3	91
52	Novel electron-type host material for unilateral homogeneous phosphorescent organic light-emitting diodes with low efficiency roll-off. Journal of Materials Chemistry, 2012, 22, 23129.	6.7	12
53	Carbazole oligomers revisited: new additions at the carbazole 1- and 8-positions. RSC Advances, 2012, 2, 10821.	3.6	40
54	Utilising tetraphenylethene as a dual activator for intramolecular charge transfer and aggregation induced emission. Chemical Communications, 2012, 48, 7711.	4.1	147

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55	Fluorescence quenching and enhancement of vitrifiable oligofluorenes end-capped with tetraphenylethene. Journal of Materials Chemistry, 2012, 22, 7515.	6.7	128
56	Modified 4,4â€²,4â€³-Tri(N-carbazolyl)triphenylamine as a Versatile Bipolar Host for Highly Efficient Blue, Orange, and White Organic Light-Emitting Diodes. Journal of Physical Chemistry C, 2012, 116, 15041-15047.	3.1	45
57	Hierarchical mesostructures of biodegradable triblock copolymers via evaporation-induced self-assembly directed by alkali metal ions. Colloid and Polymer Science, 2012, 290, 1637-1646.	2.1	3
58	Controlled Synthesis and Tiâ€”O Bond Stability of Starâ€Shaped Biodegradable Polyesters via Titanateâ€Initiated ROP of Cyclic Esters at Ambient Temperature. Macromolecular Chemistry and Physics, 2012, 213, 1499-1508.	2.2	8
59	Synthesis and characterization of biodegradable amphiphilic triblock copolymers methoxy-poly(ethylene glycol)-b-poly(L-lysine)-b-poly(L-lactic acid). Journal of Polymer Research, 2012, 19, 1.	2.4	12
60	PHOTOSWITCHABLE NANOFLUOROPHORES FOR INNOVATIVE BIOIMAGING. Journal of Innovative Optical Health Sciences, 2011, 04, 395-408.	1.0	10
61	Reversible Two-Photon Photoswitching and Two-Photon Imaging of Immunofunctionalized Nanoparticles Targeted to Cancer Cells. Journal of the American Chemical Society, 2011, 133, 365-372.	13.7	168
62	Grazing Incidence X-ray Diffraction of a Photoaligned Nematic Semiconductor. Journal of Physical Chemistry B, 2009, 113, 49-53.	2.6	14
63	Photopolymerization studies of a light-emitting liquid crystal with methacrylate reactive groups for electroluminescence. Proceedings of SPIE, 2008, , .	0.8	3
64	Calamatic liquid crystal blends for organic photovoltaics. , 2008, , .		6
65	Triplets in extended nematic liquid crystals and polarons in their blends. Journal of Chemical Physics, 2007, 127, 114901.	3.0	5
66	Distributed Bilayer Photovoltaics Based on Nematic Liquid Crystal Polymer Networks. Chemistry of Materials, 2007, 19, 5475-5484.	6.7	28
67	Electronic Charge Transport in Extended Nematic Liquid Crystals. Chemistry of Materials, 2006, 18, 2311-2317.	6.7	102
68	Organic electroluminescence using polymer networks from smectic liquid crystals. Liquid Crystals, 2006, 33, 459-467.	2.2	22
69	Heterocyclic reactive mesogens: synthesis, characterisation and mesomorphic behaviour. Liquid Crystals, 2005, 32, 951-965.	2.2	71
70	Charge-Transport in Crystalline Organic Semiconductors with Liquid Crystalline Order.. ChemInform, 2005, 36, no.	0.0	0
71	Charge-transport in crystalline organic semiconductors with liquid crystalline order. Chemical Communications, 2005, , 2921.	4.1	56
72	Light-emitting Polymerizable Liquid Crystals: Micron Scale Photolithographic Patterning and Green Electroluminescence.. Materials Research Society Symposia Proceedings, 2005, 871, 1.	0.1	9

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73	Stokes-parameter analysis of the polarization of light transmitted through a chiral nematic liquid-crystal cell. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 760.	1.5	8
74	Linearly polarised organic light-emitting diodes (OLEDs): synthesis and characterisation of a novel hole-transporting photoalignment copolymer. Journal of Materials Chemistry, 2005, 15, 3208.	6.7	40
75	Stokes parameter studies of spontaneous emission from chiral nematic liquid crystals as a one-dimensional photonic stopband crystal: Experiment and theory. Physical Review E, 2005, 71, 041706.	2.1	39
76	Synthesis and mesomorphic behaviour of novel lightâ€emitting liquid crystals. Liquid Crystals, 2005, 32, 1251-1264.	2.2	29