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	Recent advances in organic thermally activated delayed fluorescence materials. Chemical Society Reviews, 2017, 46, 915-1016.	38.1	1,815
2	Recent advances in mechano-responsive luminescence of tetraphenylethylene derivatives with aggregation-induced emission properties. Materials Chemistry Frontiers, 2018, 2, 861-890.	5.9	339
3	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
4	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
5	Utilising tetraphenylethene as a dual activator for intramolecular charge transfer and aggregation induced emission. Chemical Communications, 2012, 48, 7711.	4.1	147
6	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
7	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
8	Fluorescence quenching and enhancement of vitrifiable oligofluorenes end-capped with tetraphenylethene. Journal of Materials Chemistry, 2012, 22, 7515.	6.7	128
9	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
10	Weak interactions but potent effect: tunable mechanoluminescence by adjusting intermolecular Câ€“Hâ‹¯Ï€ interactions. Chemical Science, 2018, 9, 5787-5794.	7.4	118
11	Intrinsic low dielectric constant polyimides: relationship between molecular structure and dielectric properties. Journal of Materials Chemistry C, 2017, 5, 12807-12815.	5.5	110
12	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
13	The methylation effect in prolonging the pure organic room temperature phosphorescence lifetime. Chemical Science, 2019, 10, 179-184.	7.4	107
14	Alkyl Chain Introduction: Inâ€…Situ Solarâ€Renewable Colorful Organic Mechanoluminescence Materials. Angewandte Chemie - International Edition, 2018, 57, 12727-12732.	13.8	103
15	Electronic Charge Transport in Extended Nematic Liquid Crystals. Chemistry of Materials, 2006, 18, 2311-2317.	6.7	102
16	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
17	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
18	Two-photon-excited ultralong organic room temperature phosphorescence by dual-channel triplet harvesting. Chemical Science, 2019, 10, 7352-7357.	7.4	98

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19	Photoswitchable aggregation-induced emission of a dithienyletheneâ€“tetraphenylethene conjugate for optical memory and super-resolution imaging. RSC Advances, 2013, 3, 8967.	3.6	97
20	Mechano-induced persistent room-temperature phosphorescence from purely organic molecules. Chemical Science, 2018, 9, 3782-3787.	7.4	97
21	Optical Properties and Photoâ€Oxidation of Tetraphenyletheneâ€Based Fluorophores. Chemistry - A European Journal, 2012, 18, 16037-16045.	3.3	91
22	Facile Strategy for Intrinsic Low-k Dielectric Polymers: Molecular Design Based on Secondary Relaxation Behavior. Macromolecules, 2019, 52, 4601-4609.	4.8	91
23	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
24	Reversible Fluorescence Switching of Spiropyran-Conjugated Biodegradable Nanoparticles for Super-Resolution Fluorescence Imaging. Macromolecules, 2014, 47, 1543-1552.	4.8	75
25	Heterocyclic reactive mesogens: synthesis, characterisation and mesomorphic behaviour. Liquid Crystals, 2005, 32, 951-965.	2.2	71
26	Optical properties and red to near infrared piezo-responsive fluorescence of a tetraphenyletheneâ€“perylenebisimideâ€“tetraphenylethene triad. Journal of Materials Chemistry C, 2013, 1, 6709.	5.5	64
27	Charge-transport in crystalline organic semiconductors with liquid crystalline order. Chemical Communications, 2005, , 2921.	4.1	56
28	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
29	Tetraphenylethene-decorated carbazoles: synthesis, aggregation-induced emission, photo-oxidation and electroluminescence. Journal of Materials Chemistry C, 2014, 2, 7001-7012.	5.5	53
30	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
31	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
32	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
33	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
34	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
35	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
36	Carbazole oligomers revisited: new additions at the carbazole 1- and 8-positions. RSC Advances, 2012, 2, 10821.	3.6	40

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37	Water-Soluble Polymeric Photoswitching Dyads Impart Super-Resolution Lysosome Highlighters. Macromolecules, 2014, 47, 8594-8601.	4.8	40
38	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
39	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
40	Photocontrolled Intramolecular Charge/Energy Transfer and Fluorescence Switching of Tetraphenyletheneâ€Dithienyletheneâ€Perylenemonoimide Triad with Donorâ€“Bridgeâ€“Acceptor Structure. Chemistry - an Asian Journal, 2014, 9, 104-109.	3.3	38
41	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
42	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
43	Flexible Multifunctional Aromatic Polyimide Film: Highly Efficient Photoluminescence, Resistive Switching Characteristic, and Electroluminescence. ACS Applied Materials & Interfaces, 2018, 10, 11430-11435.	8.0	33
44	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
45	Synthesis and mesomorphic behaviour of novel lightâ€emitting liquid crystals. Liquid Crystals, 2005, 32, 1251-1264.	2.2	29
46	Distributed Bilayer Photovoltaics Based on Nematic Liquid Crystal Polymer Networks. Chemistry of Materials, 2007, 19, 5475-5484.	6.7	28
47	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
48	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
49	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
50	Organic electroluminescence using polymer networks from smectic liquid crystals. Liquid Crystals, 2006, 33, 459-467.	2.2	22
51	Efficient green-red piezofluorochromism of bisanthracene-modified dibenzofulvene. RSC Advances, 2015, 5, 1079-1082.	3.6	22
52	Alkyl Chain Introduction: Inâ€…Situ Solarâ€Renewable Colorful Organic Mechanoluminescence Materials. Angewandte Chemie, 2018, 130, 12909-12914.	2.0	20
53	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
54	Design, synthesis and optical properties of a green fluorescent photoswitchable hexaarylbiimidazole (HABI) with non-conjugated design. RSC Advances, 2013, 3, 9167.	3.6	19

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55	Spiropyran-based biodegradable polymer all-optical transistors integrate the switching and modulation of visible light frequency. Chemical Communications, 2014, 50, 2664.	4.1	18
56	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
57	Grazing Incidence X-ray Diffraction of a Photoaligned Nematic Semiconductor. Journal of Physical Chemistry B, 2009, 113, 49-53.	2.6	14
58	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
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	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
62	Achieving white-light emission in a single-component polymer with halogen-assisted interaction. Science China Chemistry, 2021, 64, 467-477.	8.2	10
63	Light-emitting Polymerizable Liquid Crystals: Micron Scale Photolithographic Patterning and Green Electroluminescence.. Materials Research Society Symposia Proceedings, 2005, 871, 1.	0.1	9
64	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
65	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
66	Calamatic liquid crystal blends for organic photovoltaics. , 2008, , .		6
67	Carborane photochromism: a fatigue resistant carborane switch. Chemical Communications, 2021, 57, 9466-9469.	4.1	6
68	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
69	Spiropyran-Based Molecular Photoswitches. Chinese Journal of Organic Chemistry, 2013, 33, 927.	1.3	6
70	Triplets in extended nematic liquid crystals and polarons in their blends. Journal of Chemical Physics, 2007, 127, 114901.	3.0	5
71	Condensed state fluorescence switching of hexaarylbiimidazole-tetraphenylethene conjugate for super-resolution fluorescence nanolocalization. Frontiers of Optoelectronics, 2013, 6, 458-467.	3.7	4
72	Photopolymerization studies of a light-emitting liquid crystal with methacrylate reactive groups for electroluminescence. Proceedings of SPIE, 2008, , .	0.8	3

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73	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
74	Charge-Transport in Crystalline Organic Semiconductors with Liquid Crystalline Order.. ChemInform, 2005, 36, no.	0.0	0
75	Biodegradable polymer nanoparticles with photoswitchable fluorescence for super-resolution bioimaging. , 2013, , .		0
76	Metal Oxide CrOx as a Promising Bilayer Electron Transport Material for Enhancing the Performance Stability of Planar Perovskite Solar Cells (Solar RRL 6âˆ•2018). Solar Rrl, 2018, 2, 17700176.	5.8	0