

# Matthew P Aldred

## List of Publications by Year in descending order

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76  
papers

5,935  
citations

87723

38  
h-index

82410

72  
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76  
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76  
docs citations

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times ranked

5800  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Multi-Stimuli-Responsive Molecule with Responses to Light, Oxygen, and Mechanical Stress through Flexible Tuning of Triplet Excitons. <i>Advanced Optical Materials</i> , 2021, 9, 2001550.	3.6	32
2	Carborane photochromism: a fatigue resistant carborane switch. <i>Chemical Communications</i> , 2021, 57, 9466-9469.	2.2	6
3	Rigid Polyimides with Thermally Activated Delayed Fluorescence for Polymer Light-Emitting Diodes with High External Quantum Efficiency up to 21%. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 7220-7226.	7.2	34
4	Rigid Polyimides with Thermally Activated Delayed Fluorescence for Polymer Light-Emitting Diodes with High External Quantum Efficiency up to 21%. <i>Angewandte Chemie</i> , 2021, 133, 7296-7302.	1.6	6
5	Achieving white-light emission in a single-component polymer with halogen-assisted interaction. <i>Science China Chemistry</i> , 2021, 64, 467-477.	4.2	10
6	A Facile Strategy for Non-fluorinated Intrinsic Low-k and Low-loss Dielectric Polymers: Valid Exploitation of Secondary Relaxation Behaviors. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2020, 38, 213-219.	2.0	24
7	Selective Expression of Chromophores in a Single Molecule: Soft Organic Crystals Exhibiting Full-Colour Tunability and Dynamic Triplet-Exciton Behaviours. <i>Angewandte Chemie</i> , 2020, 132, 3768-3774.	1.6	24
8	Selective Expression of Chromophores in a Single Molecule: Soft Organic Crystals Exhibiting Full-Colour Tunability and Dynamic Triplet-Exciton Behaviours. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 3739-3745.	7.2	128
9	Preserving High-Efficiency Luminescence Characteristics of an Aggregation-Induced Emission-Active Fluorophore in Thermostable Amorphous Polymers. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 34198-34207.	4.0	20
10	An exceptionally flexible hydrogen-bonded organic framework with large-scale void regulation and adaptive guest accommodation abilities. <i>Nature Communications</i> , 2019, 10, 3074.	5.8	142
11	A sterically hindered asymmetric $D_2h$ thermally activated delayed fluorescence emitter for highly efficient non-doped organic light-emitting diodes. <i>Chemical Science</i> , 2019, 10, 8129-8134.	3.7	102
12	The methylation effect in prolonging the pure organic room temperature phosphorescence lifetime. <i>Chemical Science</i> , 2019, 10, 179-184.	3.7	107
13	Achieving Dual-Emissive and Time-Dependent Evolutive Organic Afterglow by Bridging Molecules with Weak Intermolecular Hydrogen Bonding. <i>Advanced Optical Materials</i> , 2019, 7, 1801593.	3.6	101
14	Simultaneous enhancement in performance and UV-light stability of organic-inorganic perovskite solar cells using a samarium-based down conversion material. <i>Journal of Materials Chemistry A</i> , 2019, 7, 322-329.	5.2	42
15	Two-photon-excited ultralong organic room temperature phosphorescence by dual-channel triplet harvesting. <i>Chemical Science</i> , 2019, 10, 7352-7357.	3.7	98
16	Facile Strategy for Intrinsic Low- $k$ Dielectric Polymers: Molecular Design Based on Secondary Relaxation Behavior. <i>Macromolecules</i> , 2019, 52, 4601-4609.	2.2	91
17	Highly-efficient fully non-doped white organic light-emitting diodes consisting entirely of thermally activated delayed fluorescence emitters. <i>Journal of Materials Chemistry C</i> , 2018, 6, 3226-3232.	2.7	43
18	Flexible Multifunctional Aromatic Polyimide Film: Highly Efficient Photoluminescence, Resistive Switching Characteristic, and Electroluminescence. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 11430-11435.	4.0	33

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19	Metal Oxide CrO <sub>x</sub> as a Promising Bilayer Electron Transport Material for Enhancing the Performance Stability of Planar Perovskite Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1700245.	3.1	16
20	Recent advances in mechano-responsive luminescence of tetraphenylethylene derivatives with aggregation-induced emission properties. <i>Materials Chemistry Frontiers</i> , 2018, 2, 861-890.	3.2	339
21	Mechano-induced persistent room-temperature phosphorescence from purely organic molecules. <i>Chemical Science</i> , 2018, 9, 3782-3787.	3.7	97
22	Efficient triplet harvesting in fluorescence—TADF hybrid warm-white organic light-emitting diodes with a fully non-doped device configuration. <i>Journal of Materials Chemistry C</i> , 2018, 6, 4257-4264.	2.7	41
23	An efficient yellow thermally activated delayed fluorescence emitter with universal applications in both doped and non-doped organic light-emitting diodes. <i>Materials Chemistry Frontiers</i> , 2018, 2, 1017-1023.	3.2	39
24	Metal Oxide CrO <sub>x</sub> as a Promising Bilayer Electron Transport Material for Enhancing the Performance Stability of Planar Perovskite Solar Cells (Solar RRL 6 <sup>th</sup> 2018). <i>Solar Rrl</i> , 2018, 2, 17700176.	3.1	0
25	Design, synthesis and photochromism studies of thienyl containing triarylethylene derivatives and their applications in real-time photoresponsive surfaces. <i>Journal of Materials Chemistry C</i> , 2018, 6, 8832-8838.	2.7	37
26	Alkyl Chain Introduction: In Situ Solar Renewable Colorful Organic Mechanoluminescence Materials. <i>Angewandte Chemie</i> , 2018, 130, 12909-12914.	1.6	20
27	Alkyl Chain Introduction: In Situ Solar Renewable Colorful Organic Mechanoluminescence Materials. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 12727-12732.	7.2	103
28	Weak interactions but potent effect: tunable mechanoluminescence by adjusting intermolecular C-H... interactions. <i>Chemical Science</i> , 2018, 9, 5787-5794.	3.7	118
29	Recent advances in organic thermally activated delayed fluorescence materials. <i>Chemical Society Reviews</i> , 2017, 46, 915-1016.	18.7	1,815
30	A new approach to switchable photochromic materials by combining photochromism and piezochromism together in an AIE-active molecule. <i>Materials Chemistry Frontiers</i> , 2017, 1, 1900-1904.	3.2	56
31	Hydrogen bonding-assisted loosely packed crystals of a diaminomaleonitrile-modified tetraphenylethylene compound and their photo- and mechano-responsive properties. <i>Journal of Materials Chemistry C</i> , 2017, 5, 11867-11872.	2.7	25
32	Hydrogen Bonding-Assisted Intermolecular Charge Transfer: A New Strategy to Design Single-Component White-Light-Emitting Materials. <i>Advanced Functional Materials</i> , 2017, 27, 1703918.	7.8	84
33	Intrinsic low dielectric constant polyimides: relationship between molecular structure and dielectric properties. <i>Journal of Materials Chemistry C</i> , 2017, 5, 12807-12815.	2.7	110
34	White-light emission from a single heavy atom-free molecule with room temperature phosphorescence, mechanochromism and thermochromism. <i>Chemical Science</i> , 2017, 8, 1909-1914.	3.7	168
35	Synthesis of Fluorene-Bridged Arylene Vinylene Fluorophores: Effects of End-Capping Groups on the Optical Properties, Aggregation Induced Emission. <i>Chinese Journal of Chemistry</i> , 2015, 33, 939-947.	2.6	10
36	Efficient green-red piezofluorochromism of bisanthracene-modified dibenzofulvene. <i>RSC Advances</i> , 2015, 5, 1079-1082.	1.7	22

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37	Water-Soluble Polymeric Photoswitching Dyads Impart Super-Resolution Lysosome Highlighters. <i>Macromolecules</i> , 2014, 47, 8594-8601.	2.2	40
38	Photocontrolled Intramolecular Charge/Energy Transfer and Fluorescence Switching of Tetraphenylethene- $\pi$ -Dithienylethene- $\pi$ -Perylenemonoimide Triad with Donor- $\pi$ -Bridge- $\pi$ -Acceptor Structure. <i>Chemistry - an Asian Journal</i> , 2014, 9, 104-109.	1.7	38
39	Spiropyran-based biodegradable polymer all-optical transistors integrate the switching and modulation of visible light frequency. <i>Chemical Communications</i> , 2014, 50, 2664.	2.2	18
40	Reversible Fluorescence Switching of Spiropyran-Conjugated Biodegradable Nanoparticles for Super-Resolution Fluorescence Imaging. <i>Macromolecules</i> , 2014, 47, 1543-1552.	2.2	75
41	Tetraphenylethene-decorated carbazoles: synthesis, aggregation-induced emission, photo-oxidation and electroluminescence. <i>Journal of Materials Chemistry C</i> , 2014, 2, 7001-7012.	2.7	53
42	General Synthetic Approach toward Geminal-Substituted Tetraarylethene Fluorophores with Tunable Emission Properties: X-ray Crystallography, Aggregation-Induced Emission and Piezofluorochromism. <i>Chemistry of Materials</i> , 2014, 26, 4433-4446.	3.2	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. <i>Chemical Communications</i> , 2014, 50, 12058-12060.	2.2	132
44	Condensed state fluorescence switching of hexaarylbiimidazole-tetraphenylethene conjugate for super-resolution fluorescence nanolocalization. <i>Frontiers of Optoelectronics</i> , 2013, 6, 458-467.	1.9	4
45	Optical properties and red to near infrared piezo-responsive fluorescence of a tetraphenylethene- $\pi$ -perylenebisimide- $\pi$ -tetraphenylethene triad. <i>Journal of Materials Chemistry C</i> , 2013, 1, 6709.	2.7	64
46	Aggregation-induced emission logic gates based on metal ion sensing of phenanthroline- $\pi$ -tetraphenylethene conjugates. <i>Journal of Materials Chemistry C</i> , 2013, 1, 7519.	2.7	41
47	Photoswitchable aggregation-induced emission of a dithienylethene- $\pi$ -tetraphenylethene conjugate for optical memory and super-resolution imaging. <i>RSC Advances</i> , 2013, 3, 8967.	1.7	97
48	Design, synthesis and optical properties of a green fluorescent photoswitchable hexaarylbiimidazole (HABI) with non-conjugated design. <i>RSC Advances</i> , 2013, 3, 9167.	1.7	19
49	Biodegradable polymer nanoparticles with photoswitchable fluorescence for super-resolution bioimaging. , 2013, , .		0
50	Spiropyran-Based Molecular Photoswitches. <i>Chinese Journal of Organic Chemistry</i> , 2013, 33, 927.	0.6	6
51	Optical Properties and Photo- $\pi$ -Oxidation of Tetraphenylethene- $\pi$ -Based Fluorophores. <i>Chemistry - A European Journal</i> , 2012, 18, 16037-16045.	1.7	91
52	Novel electron-type host material for unilateral homogeneous phosphorescent organic light-emitting diodes with low efficiency roll-off. <i>Journal of Materials Chemistry</i> , 2012, 22, 23129.	6.7	12
53	Carbazole oligomers revisited: new additions at the carbazole 1- and 8-positions. <i>RSC Advances</i> , 2012, 2, 10821.	1.7	40
54	Utilising tetraphenylethene as a dual activator for intramolecular charge transfer and aggregation induced emission. <i>Chemical Communications</i> , 2012, 48, 7711.	2.2	147

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55	Fluorescence quenching and enhancement of vitrifiable oligofluorenes end-capped with tetraphenylethene. <i>Journal of Materials Chemistry</i> , 2012, 22, 7515.	6.7	128
56	Modified 4,4'-Tri(N-carbazolyl)triphenylamine as a Versatile Bipolar Host for Highly Efficient Blue, Orange, and White Organic Light-Emitting Diodes. <i>Journal of Physical Chemistry C</i> , 2012, 116, 15041-15047.	1.5	45
57	Hierarchical mesostructures of biodegradable triblock copolymers via evaporation-induced self-assembly directed by alkali metal ions. <i>Colloid and Polymer Science</i> , 2012, 290, 1637-1646.	1.0	3
58	Controlled Synthesis and Ti-O Bond Stability of Star-Shaped Biodegradable Polyesters via Titanate-Initiated ROP of Cyclic Esters at Ambient Temperature. <i>Macromolecular Chemistry and Physics</i> , 2012, 213, 1499-1508.	1.1	8
59	Synthesis and characterization of biodegradable amphiphilic triblock copolymers methoxy-poly(ethylene glycol)-b-poly(L-lysine)-b-poly(L-lactic acid). <i>Journal of Polymer Research</i> , 2012, 19, 1.	1.2	12
60	PHOTOSWITCHABLE NANOFLUOROPHORES FOR INNOVATIVE BIOIMAGING. <i>Journal of Innovative Optical Health Sciences</i> , 2011, 04, 395-408.	0.5	10
61	Reversible Two-Photon Photoswitching and Two-Photon Imaging of Immunofunctionalized Nanoparticles Targeted to Cancer Cells. <i>Journal of the American Chemical Society</i> , 2011, 133, 365-372.	6.6	168
62	Grazing Incidence X-ray Diffraction of a Photoaligned Nematic Semiconductor. <i>Journal of Physical Chemistry B</i> , 2009, 113, 49-53.	1.2	14
63	Photopolymerization studies of a light-emitting liquid crystal with methacrylate reactive groups for electroluminescence. <i>Proceedings of SPIE</i> , 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. <i>Journal of Chemical Physics</i> , 2007, 127, 114901.	1.2	5
66	Distributed Bilayer Photovoltaics Based on Nematic Liquid Crystal Polymer Networks. <i>Chemistry of Materials</i> , 2007, 19, 5475-5484.	3.2	28
67	Electronic Charge Transport in Extended Nematic Liquid Crystals. <i>Chemistry of Materials</i> , 2006, 18, 2311-2317.	3.2	102
68	Organic electroluminescence using polymer networks from smectic liquid crystals. <i>Liquid Crystals</i> , 2006, 33, 459-467.	0.9	22
69	Heterocyclic reactive mesogens: synthesis, characterisation and mesomorphic behaviour. <i>Liquid Crystals</i> , 2005, 32, 951-965.	0.9	71
70	Charge-Transport in Crystalline Organic Semiconductors with Liquid Crystalline Order.. <i>ChemInform</i> , 2005, 36, no.	0.1	0
71	Charge-transport in crystalline organic semiconductors with liquid crystalline order. <i>Chemical Communications</i> , 2005, , 2921.	2.2	56
72	Light-emitting Polymerizable Liquid Crystals: Micron Scale Photolithographic Patterning and Green Electroluminescence.. <i>Materials Research Society Symposia Proceedings</i> , 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. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2005, 22, 760.	0.8	8
74	Linearly polarised organic light-emitting diodes (OLEDs): synthesis and characterisation of a novel hole-transporting photoalignment copolymer. <i>Journal of Materials Chemistry</i> , 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. <i>Physical Review E</i> , 2005, 71, 041706.	0.8	39
76	Synthesis and mesomorphic behaviour of novel light-emitting liquid crystals. <i>Liquid Crystals</i> , 2005, 32, 1251-1264.	0.9	29