Arri PriimÃ¤gi

List of Publications by Year
in descending order

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146 papers	10,733 citations	50170 46 h-index	31759 101 g-index
156 all docs	156 docs citations	156 times ranked	10149 citing authors

#	Article	IF	Citations
1	Lightâ€Fueled Polymer Film Capable of Directional Crawling, Frictionâ€Controlled Climbing, and Selfâ€Sustained Motion on a Human Hair. Advanced Science, 2022, 9, e2103090.	5.6	26
2	Photoelastic plasmonic metasurfaces with ultra-large near infrared spectral tuning. Materials Horizons, 2022, 9, 942-951.	6.4	9
3	Protonation-induced fluorescence modulation of carbazole-based emitters. Materials Advances, 2022, 3, 1703-1712.	2.6	6
4	Surface Stability of Azobenzeneâ€Based Thin Films in Aqueous Environment: Lightâ€Controllable Underwater Blistering. Advanced Materials Interfaces, 2022, 9, .	1.9	0
5	Optically controlled grasping-slipping robot moving on tubular surfaces. Multifunctional Materials, 2022, 5, 024001.	2.4	5
6	Lightâ€Responsive Bilayer Cell Culture Platform for Reversible Cell Guidance. Small Science, 2022, 2, 2100099.	5.8	5
7	Optically Controlled Latching and Launching in Soft Actuators. Advanced Functional Materials, 2022, 32, .	7.8	24
8	Towards low-energy-light-driven bistable photoswitches: ortho-fluoroaminoazobenzenes. Photochemical and Photobiological Sciences, 2022, 21, 159-173.	1.6	15
9	Surface Stability of Azobenzeneâ€Based Thin Films in Aqueous Environment: Lightâ€Controllable Underwater Blistering (Adv. Mater. Interfaces 9/2022). Advanced Materials Interfaces, 2022, 9, .	1.9	0
10	Humidity-Controlled Tunable Emission in a Dye-Incorporated Metalâ€“Hydrogelâ€“Metal Cavity. ACS Photonics, 2022, 9, 2287-2294.	3.2	4
11	Nearâ€Infrared Lightâ€Driven Shapeâ€Morphing of Programmable Anisotropic Hydrogels Enabled by MXene Nanosheets. Angewandte Chemie - International Edition, 2021, 60, 3390-3396.	7.2	213
12	Nearâ€Infrared Lightâ€Driven Shapeâ€Morphing of Programmable Anisotropic Hydrogels Enabled by MXene Nanosheets. Angewandte Chemie, 2021, 133, 3432-3438.	1.6	20
13	Stimulus-driven liquid metal and liquid crystal network actuators for programmable soft robotics. Materials Horizons, 2021, 8, 2475-2484.	6.4	142
14	Expanding excitation wavelengths for azobenzene photoswitching into the near-infrared range via endothermic triplet energy transfer. Chemical Science, 2021, 12, 7504-7509.	3.7	23
15	Frontispiece: Nearâ€Infrared Lightâ€Driven Shapeâ€Morphing of Programmable Anisotropic Hydrogels Enabled by MXene Nanosheets. Angewandte Chemie - International Edition, 2021, 60, .	7.2	0
16	Frontispiz: Nearâ€Infrared Lightâ€Driven Shapeâ€Morphing of Programmable Anisotropic Hydrogels Enabled by MXene Nanosheets. Angewandte Chemie, 2021, 133, .	1.6	0
17	Multiscale Hierarchical Surface Patterns by Coupling Optical Patterning and Thermal Shrinkage. ACS Applied Materials & Interfaces, 2021, 13, 15563-15571.	4.0	9
18	Directional Growth of Human Neuronal Axons in a Microfluidic Device with Nanotopography on Azobenzeneâ€Based Material. Advanced Materials Interfaces, 2021, 8, 2100048.	1.9	22

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19	Halogenâ€Bonded Holeâ€Transport Material Suppresses Charge Recombination and Enhances Stability of Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101553.	10.2	44
20	Multistage Reversible T_g Photomodulation and Hardening of Hydrazone-Containing Polymers. Journal of the American Chemical Society, 2021, 143, 16348-16353.	6.6	26
21	Humidity- and Temperature-Tunable Metalâ€“Hydrogelâ€“Metal Reflective Filters. ACS Applied Materials & Interfaces, 2021, 13, 50564-50572.	4.0	11
22	Digital holographic microscopy for photolithographic surface patterning. , 2021, , .		0
23	Azobenzene Photoswitching with Near-Infrared Light Mediated by Molecular Oxygen. Journal of Physical Chemistry B, 2021, 125, 12568-12573.	1.2	7
24	Fluorination of pyrene-based organic semiconductors enhances the performance of light emitting diodes and halide perovskite solar cells. Organic Electronics, 2020, 77, 105524.	1.4	10
25	Kirigamiâ€Based Lightâ€Induced Shapeâ€Morphing and Locomotion. Advanced Materials, 2020, 32, e1906233.	11.1	147
26	Associative Learning by Classical Conditioning in Liquid Crystal Network Actuators. Matter, 2020, 2, 194-206.	5.0	51
27	Tunable Photomechanics in Diarylethene-Driven Liquid Crystal Network Actuators. ACS Applied Materials & Interfaces, 2020, 12, 47939-47947.	4.0	23
28	All-Optical Emission Control and Lasing in Plasmonic Lattices. ACS Photonics, 2020, 7, 2850-2858.	3.2	15
29	A bifacial colour-tunable system via combination of a cholesteric liquid crystal network and hydrogel. Journal of Materials Chemistry C, 2020, 8, 10191-10196.	2.7	11
30	Digital holographic microscopy for real-time observation of surface-relief grating formation on azobenzene-containing films. Scientific Reports, 2020, 10, 19642.	1.6	42
31	Reconfiguring Gaussian Curvature of Hydrogel Sheets with Photoswitchable Hostâ€“Guest Interactions. ACS Macro Letters, 2020, 9, 1172-1177.	2.3	24
32	N-Substituted Phenothiazines as Environmentally Friendly Hole-Transporting Materials for Low-Cost and Highly Stable Halide Perovskite Solar Cells. ACS Omega, 2020, 5, 23334-23342.	1.6	9
33	Azobenzene-based sinusoidal surface topography drives focal adhesion confinement and guides collective migration of epithelial cells. Scientific Reports, 2020, 10, 15329.	1.6	30
34	Fluorescence enhancement of quinolines by protonation. RSC Advances, 2020, 10, 29385-29393.	1.7	22
35	From Responsive Molecules to Interactive Materials. Advanced Materials, 2020, 32, e2000215.	11.1	7
36	Fast Switching of Bright Whiteness in Channeled Hydrogel Networks. Advanced Functional Materials, 2020, 30, 2000754.	7.8	53

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37	Design principles for non-reciprocal photomechanical actuation. Soft Matter, 2020, 16, 5951-5958.	1.2	17
38	Bioinspired underwater locomotion of light-driven liquid crystal gels. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5125-5133.	3.3	237
39	Effect of hydrogen-bond strength on photoresponsive properties of polymer-azobenzene complexes. Canadian Journal of Chemistry, 2020, 98, 531-538.	0.6	3
40	Viewpoint: Pavlovian Materialsâ€"Functional Biomimetics Inspired by Classical Conditioning. Advanced Materials, 2020, 32, e1906619.	11.1	21
41	Optically induced crossover from weak to strong coupling regime between surface plasmon polaritons and photochromic molecules. Optics Express, 2020, 28, 26509.	1.7	3
42	Thionation Enhances the Performance of Polymeric Dopantâ€Free Holeâ€Transporting Materials for Perovskite Solar Cells. Advanced Materials Interfaces, 2019, 6, 1901036.	1.9	36
43	Programmable responsive hydrogels inspired by classical conditioning algorithm. Nature Communications, 2019, 10, 3267.	5.8	47
44	Light-fuelled freestyle self-oscillators. Nature Communications, 2019, 10, 5057.	5.8	142
45	Mesogens with Aggregation-Induced Emission Formed by Hydrogen Bonding. , 2019, 1, 589-593.		19
46	Photoreversible Soft Azo Dye Materials: Toward Optical Control of Bioâ€Interfaces. Advanced Optical Materials, 2019, 7, 1900091.	3.6	63
47	Photocontrol of Supramolecular Azo-Containing Block Copolymer Thin Films during Dip-Coating: Toward Nanoscale Patterned Coatings. ACS Applied Nano Materials, 2019, 2, 3526-3537.	2.4	4
48	Halide Perovskite Nanocrystals for Nextâ€Generation Optoelectronics. Small, 2019, 15, e1900801.	5.2	48
49	Low-dimensional formamidinium lead perovskite architectures via controllable solvent intercalation. Journal of Materials Chemistry C, 2019, 7, 3945-3951.	2.7	23
50	Phenothiazine-Based Hole-Transporting Materials toward Eco-friendly Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 3021-3027.	2.5	49
51	An Artificial Nocturnal Flower via Humidityâ€Gated Photoactuation in Liquid Crystal Networks. Advanced Materials, 2019, 31, e1805985.	11.1	154
52	Photoresponsive Halogen-Bonded Liquid Crystals: The Role of Aromatic Fluorine Substitution. Chemistry of Materials, 2019, 31, 462-470.	3.2	60
53	Continuously tunable polymer membrane laser. Optics Express, 2019, 27, 25634.	1.7	11
54	Halogen-bond driven self-assembly of triangular macrocycles. New Journal of Chemistry, 2018, 42, 10467-10471.	1.4	22

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55	Supramolecular design principles for efficient photoresponsive polymerâ€“azobenzene complexes. Journal of Materials Chemistry C, 2018, 6, 2168-2188.	2.7	94
56	Thermal Isomerization of Hydroxyazobenzenes as a Platform for Vapor Sensing. ACS Macro Letters, 2018, 7, 381-386.	2.3	31
57	Lightâ€Driven, Caterpillarâ€Inspired Miniature Inching Robot. Macromolecular Rapid Communications, 2018, 39, 1700224.	2.0	180
58	Light Robots: Bridging the Gap between Microrobotics and Photomechanics in Soft Materials. Advanced Materials, 2018, 30, e1703554.	11.1	270
59	Programming Photoresponse in Liquid Crystal Polymer Actuators with Laser Projector. Advanced Optical Materials, 2018, 6, 1700949.	3.6	62
60	On the molecular optical nonlinearity of halogen-bond-forming azobenzenes. Physical Chemistry Chemical Physics, 2018, 20, 28810-28817.	1.3	9
61	Reconfigurable photoactuator through synergistic use of photochemical and photothermal effects. Nature Communications, 2018, 9, 4148.	5.8	233
62	Halogen-Bond-Assisted Photoluminescence Modulation in Carbazole-Based Emitter. Scientific Reports, 2018, 8, 14431.	1.6	23
63	ortho-Fluorination of azophenols increases the mesophase stability of photoresponsive hydrogen-bonded liquid crystals. Journal of Materials Chemistry C, 2018, 6, 9958-9963.	2.7	31
64	Microrobotics: Light Robots: Bridging the Gap between Microrobotics and Photomechanics in Soft Materials (Adv. Mater. 24/2018). Advanced Materials, 2018, 30, 1870174.	11.1	8
65	Benchmarking DFT methods with small basis sets for the calculation of halogen-bond strengths. Journal of Molecular Modeling, 2017, 23, 50.	0.8	51
66	Crystallisation-enhanced bulk hole mobility in phenothiazine-based organic semiconductors. Scientific Reports, 2017, 7, 46268.	1.6	28
67	Photoresponsive ionic liquid crystals assembled via halogen bond: en route towards light-controllable ion transporters. Faraday Discussions, 2017, 203, 407-422.	1.6	23
68	Selfâ€Regulating Iris Based on Lightâ€Actuated Liquid Crystal Elastomer. Advanced Materials, 2017, 29, 1701814.	11.1	288
69	A light-driven artificial flytrap. Nature Communications, 2017, 8, 15546.	5.8	499
70	Molding Optical Waveguides with Nematicons. Advanced Optical Materials, 2017, 5, 1700199.	3.6	16
71	Hierarchical Self-Assembly of Halogen-Bonded Block Copolymer Complexes into Upright Cylindrical Domains. CheM, 2017, 2, 417-426.	5.8	49
72	Halogen bonding stabilizes acis-azobenzene derivative in the solid state: a crystallographic study. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2017, 73, 227-233.	0.5	9

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73	Controlling azobenzene photoswitching through combined ortho-fluorination and -amination. Chemical Communications, 2017, 53, 12520-12523.	2.2	48
74	Supramolecular control of liquid crystals by doping with halogen-bonding dyes. RSC Advances, 2017, 7, 40237-40242.	1.7	18
75	Periodic Surface Structures Induced by a Single Laser Beam Irradiation. Macromolecular Materials and Engineering, 2017, 302, 1600329.	1.7	15
76	Surface-Relief Gratings in Halogen-Bonded Polymerâ€“Azobenzene Complexes: A Concentration-Dependence Study. Molecules, 2017, 22, 1844.	1.7	11
77	Hole-Transporting Materials for Printable Perovskite Solar Cells. Materials, 2017, 10, 1087.	1.3	94
78	Superfluorinated Ionic Liquid Crystals Based on Supramolecular, Halogenâ€Bonded Anions. Angewandte Chemie, 2016, 128, 6408-6412.	1.6	15
79	Photoresponsive Liquid-Crystalline Polymer Films Bilayered with an Inverse Opal Structure. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2016, 29, 145-148.	0.1	3
80	Structurally Controlled Dynamics in Azobenzene-Based Supramolecular Self-Assemblies in Solid State. Macromolecules, 2016, 49, 4095-4101.	2.2	29
81	Photoinduced nonlinear optical response in azobenzene-functionalized molecular glass. Optics Express, 2016, 24, 4964.	1.7	6
82	Efficient Light-Induced Phase Transitions in Halogen-Bonded Liquid Crystals. Chemistry of Materials, 2016, 28, 8314-8321.	3.2	46
83	Multicomponent Petasisâ€boronо Mannich Preparation of Alkylaminophenols and Antimicrobial Activity Studies. ChemMedChem, 2016, 11, 2015-2023.	1.6	31
84	Superfluorinated Ionic Liquid Crystals Based on Supramolecular, Halogenâ€Bonded Anions. Angewandte Chemie - International Edition, 2016, 55, 6300-6304.	7.2	56
85	Controlling the shape of Janus nanostructures through supramolecular modification of ABC terpolymer bulk morphologies. Polymer, 2016, 107, 456-465.	1.8	31
86	The Halogen Bond. Chemical Reviews, 2016, 116, 2478-2601.	23.0	2,906
87	Coordination networks incorporating halogen-bond donor sites and azobenzene groups. CrystEngComm, 2016, 18, 2251-2257.	1.3	8
88	Quenching nematicon fluctuations via photo-stabilization. Photonics Letters of Poland, 2016, 8, .	0.2	0
89	Supramolecular hierarchy among halogen and hydrogen bond donors in light-induced surface patterning. Journal of Materials Chemistry C, 2015, 3, 759-768.	2.7	87
90	Laser-pointer-induced self-focusing effect in hybrid-aligned dye-doped liquid crystals. Scientific Reports, 2015, 5, 9890.	1.6	16

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91	Halogen bonding enhances nonlinear optical response in poled supramolecular polymers. Journal of Materials Chemistry C, 2015, 3, 3003-3006.	2.7	44
92	From partial to complete optical erasure of azobenzeneâ€“polymer gratings: effect of molecular weight. Journal of Materials Chemistry C, 2015, 3, 11011-11016.	2.7	46
93	Photomechanical Energy Transfer to Photopassive Polymers through Hydrogen and Halogen Bonds. Macromolecules, 2015, 48, 7535-7542.	2.2	27
94	Halogen-Bonded Photoresponsive Materials. Topics in Current Chemistry, 2014, 359, 147-166.	4.0	25
95	Azobenzene-based difunctional halogen-bond donor: towards the engineering of photoresponsive co-crystals. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2014, 70, 149-156.	0.5	21
96	Azopolymerâ€based microâ€and nanopatterning for photonic applications. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 163-182.	2.4	256
97	Light-Driven Surface Patterning of Supramolecular Polymers with Extremely Low Concentration of Photoactive Molecules. ACS Macro Letters, 2014, 3, 1196-1200.	2.3	52
98	Effect of head group size on the photoswitching applications of azobenzene Disperse Red 1 analogues. Journal of Materials Chemistry C, 2014, 2, 7505-7512.	2.7	32
99	Large-area arrays of three-dimensional plasmonic subwavelength-sized structures from azopolymer surface-relief gratings. Materials Horizons, 2014, 1, 74-80.	6.4	28
100	Are Two Azo Groups Better than One? Investigating the Photoresponse of Polymer-Bisazobenzene Complexes. Chemistry of Materials, 2014, 26, 5089-5096.	3.2	57
101	Light-Fuelled Transport of Large Dendrimers and Proteins. Journal of the American Chemical Society, 2014, 136, 6850-6853.	6.6	37
102	Recent twists in photoactuation and photoalignment control. Journal of Materials Chemistry C, 2014, 2, 7155-7162.	2.7	142
103	High-Modulation-Depth Surface Relief Gratings Using sâ€“s Polarization Configuration in Supramolecular Polymerâ€“Azobenzene Complexes. Journal of Physical Chemistry C, 2014, 118, 23279-23284.	1.5	29
104	Facile strain analysis of largely bending films by a surface-labelled grating method. Scientific Reports, 2014, 4, 5377.	1.6	33
105	Photoinduced surface patterning of azobenzene-containing supramolecular dendrons, dendrimers and dendronized polymers. Optical Materials Express, 2013, 3, 711.	1.6	12
106	Polymer Stabilization Enhances the Orientational Optical Nonlinearity of Oligothiopheneâ€Doped Nematic Liquid Crystals. Advanced Optical Materials, 2013, 1, 787-791.	3.6	16
107	Ferroelectric liquid-crystalline polymers for photoinduced switching of nonlinear optical response. , 2013, , .		0
108	Nanoindentation study of light-induced softening of supramolecular and covalently functionalized azo polymers. Journal of Materials Chemistry C, 2013, 1, 2806.	2.7	34

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109	The Halogen Bond in the Design of Functional Supramolecular Materials: Recent Advances. Accounts of Chemical Research, 2013, 46, 2686-2695.	7.6	728
110	Liquid Crystals: Polymer Stabilization Enhances the Orientational Optical Nonlinearity of Oligothiophene-Doped Nematic Liquid Crystals (Advanced Optical Materials 11/2013). Advanced Optical Materials, 2013, 1, 786-786.	3.6	0
111	Concentration dependence of photoinduced birefringence and second-order susceptibility in all-optical poling. , 2012, , .		0
112	Highâ€Contrast Photoswitching of Nonlinear Optical Response in Crosslinked Ferroelectric Liquidâ€Crystalline Polymers. Advanced Materials, 2012, 24, 6410-6415.	11.1	52
113	Photoalignment and Surfaceâ€Reliefâ€Grating Formation are Efficiently Combined in Lowâ€Molecularâ€Weight Halogenâ€Bonded Complexes. Advanced Materials, 2012, 24, OP345-52.	11.1	80
114	Location of the Azobenzene Moieties within the Cross-Linked Liquid-Crystalline Polymers Can Dictate the Direction of Photoinduced Bending. ACS Macro Letters, 2012, 1, 96-99.	2.3	98
115	Surface-Relief Gratings and Stable Birefringence Inscribed Using Light of Broad Spectral Range in Supramolecular Polymer-Bisazobenzene Complexes. Journal of Physical Chemistry C, 2012, 116, 2363-2370.	1.5	57
116	Halogen Bonding versus Hydrogen Bonding in Driving Selfâ€Assembly and Performance of Lightâ€Responsive Supramolecular Polymers. Advanced Functional Materials, 2012, 22, 2572-2579.	7.8	178
117	Photoresponsive Supramolecular Polymers: Halogen Bonding versus Hydrogen Bonding in Driving Self-Assembly and Performance of Light-Responsive Supramolecular Polymers (Adv. Funct. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock	7.8	178
118	Azobenzene photomechanics: prospects and potential applications. Polymer Bulletin, 2012, 69, 967-1006.	1.7	339
119	Redoxâ€Active, Organometallic Surfaceâ€Relief Gratings from Azobenzeneâ€Containing Polyferrocenylsilane Block Copolymers. Advanced Materials, 2012, 24, 926-931.	11.1	59
120	Efficient surface structuring and photoalignment of supramolecular polymerâ€“azobenzene complexes through rational chromophore design. Journal of Materials Chemistry, 2011, 21, 15437.	6.7	55
121	Simultaneous Analysis of Optical and Mechanical Properties of Cross-Linked Azobenzene-Containing Liquid-Crystalline Polymer Films. ACS Applied Materials & Interfaces, 2011, 3, 4190-4196.	4.0	86
122	Single-layer one-dimensional nonpolarizing guided-mode resonance filters under normal incidence. Optics Letters, 2011, 36, 2411.	1.7	57
123	Optical Interference Lithography Using Azobenzeneâ€Functionalized Polymers for Microâ€and Nanopatterning of Silicon. Advanced Materials, 2011, 23, 4174-4177.	11.1	103
124	Different chromophore concentration dependence of photoinduced birefringence and second-order susceptibility in all-optical poling. Applied Physics Letters, 2011, 99, 183309.	1.5	7
125	Titanium dioxide coated photoinduced surface-relief grating as a resonant waveguide grating. , 2011, , .		0
126	PHOTOINDUCED BENDING UPON PULSED IRRADIATION IN AZOBENZENE-CONTAINING CROSSLINKED LIQUID-CRYSTALLINE POLYMERS. Journal of Nonlinear Optical Physics and Materials, 2011, 20, 405-413.	1.1	9

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145	Polymer-dye complexes: supramolecular route toward functional optical materials. , 2006, , .		2
146	Polymerâ''Dye Complexes:Â A Facile Method for High Doping Level and Aggregation Control of Dye Molecules. Chemistry of Materials, 2005, 17, 5798-5802.	3.2	114