

Alexander Ryabchun

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

1,305
citations

361413

20
h-index

345221

36
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45
all docs

45
docs citations

45
times ranked

1535
citing authors

#	ARTICLE	IF	CITATIONS
1	Life-like motion driven by artificial molecular machines. <i>Nature Reviews Chemistry</i> , 2019, 3, 536-551.	30.2	220
2	Cholesteric Liquid Crystal Materials for Tunable Diffractive Optics. <i>Advanced Optical Materials</i> , 2018, 6, 1800335.	7.3	160
3	Shape-Persistent Actuators from Hydrazone Photoswitches. <i>Journal of the American Chemical Society</i> , 2019, 141, 1196-1200.	13.7	135
4	Rotatable Diffraction Gratings Based on Cholesteric Liquid Crystals with Phototunable Helix Pitch. <i>Advanced Optical Materials</i> , 2015, 3, 1273-1279.	7.3	84
5	Mechanical adaptability of artificial muscles from nanoscale molecular action. <i>Nature Communications</i> , 2019, 10, 4819.	12.8	57
6	Helix Inversion Controlled by Molecular Motors in Multistate Liquid Crystals. <i>Advanced Materials</i> , 2020, 32, e2004420.	21.0	48
7	Reorientation behavior in the helical motility of light-responsive spiral droplets. <i>Nature Communications</i> , 2019, 10, 5238.	12.8	43
8	Novel Generation of Liquid Crystalline Photoactuators Based on Stretched Porous Polyethylene Films. <i>Macromolecular Rapid Communications</i> , 2012, 33, 991-997.	3.9	39
9	Knotting a molecular strand can invert macroscopic effects of chirality. <i>Nature Chemistry</i> , 2020, 12, 939-944.	13.6	38
10	Humidity-responsive actuators from integrating liquid crystal networks in an orienting scaffold. <i>Soft Matter</i> , 2017, 13, 8070-8075.	2.7	35
11	Novel Effective Approach for the Fabrication of PDMS-Based Elastic Volume Gratings. <i>Advanced Optical Materials</i> , 2016, 4, 169-176.	7.3	31
12	Liquid crystals photoalignment by films of side-chain azobenzene-containing polymers with different molecular structure. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2011, 218, 137-142.	3.9	29
13	A Novel Type of Crown Ether-Containing Metal Ions Optical Sensors Based on Polymer-Stabilized Cholesteric Liquid Crystalline Films. <i>Macromolecular Rapid Communications</i> , 2012, 33, 1875-1881.	3.9	29
14	Dual photorecording on cholesteric azobenzene-containing LC polymer films using helix pitch phototuning and holographic grating recording. <i>Journal of Materials Chemistry</i> , 2012, 22, 6245.	6.7	29
15	Electroinduced Diffraction Gratings in Cholesteric Polymer with Phototunable Helix Pitch. <i>Advanced Optical Materials</i> , 2015, 3, 1462-1469.	7.3	25
16	Ordering phenomena and photoorientation processes in photochromic thin films of LC chiral azobenzene-containing polymer systems. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2009, 206, 46-52.	3.9	24
17	Cholesteric Polymer Scaffolds Filled with Azobenzene-Containing Nematic Mixture with Phototunable Optical Properties. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 27227-27235.	8.0	24
18	Dynamic Diffractive Patterns in Helix-Inverting Cholesteric Liquid Crystals. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 10895-10904.	8.0	24

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19	Acceleration of lipid reproduction by emergence of microscopic motion. <i>Nature Communications</i> , 2021, 12, 2959.	12.8	24
20	Full- ϵ -Polymer Cholesteric Composites for Transmission and Reflection Holographic Gratings. <i>Advanced Optical Materials</i> , 2017, 5, 1700314.	7.3	22
21	New azobenzene-based chiral-photochromic substances with thermally stable Z-isomers and their use for the induction of a cholesteric mesophase with a phototunable helix pitch. <i>Journal of Materials Chemistry C</i> , 2014, 2, 8622-8629.	5.5	18
22	Stable Selective Gratings in LC Polymer by Photoinduced Helix Pitch Modulation. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 2554-2560.	8.0	18
23	A novel generation of photoactive comb-shaped polyamides for the photoalignment of liquid crystals. <i>Journal of Polymer Science Part A</i> , 2013, 51, 4031-4041.	2.3	17
24	Light-Fueled Nanoscale Surface Waving in Chiral Liquid Crystal Networks. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 4777-4784.	8.0	16
25	Liquid Crystalline Azobenzene-Containing Polymer as a Matrix for Distributed Feedback Lasers. <i>ACS Photonics</i> , 2014, 1, 885-893.	6.6	13
26	Photocontrollable Deformations of Polymer Particles in Elastic Matrix. <i>Advanced Optical Materials</i> , 2019, 7, 1901486.	7.3	13
27	Photochromic Composite for Random Lasing Based on Porous Polypropylene Infiltrated with Azobenzene-Containing Liquid Crystalline Mixture. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 26595-26602.	8.0	12
28	Influence of the cation type on the DFB lasing performance of dye-doped azobenzene-containing polyelectrolytes. <i>Journal of Materials Chemistry C</i> , 2014, 2, 8546-8553.	5.5	11
29	Motile behaviour of droplets in lipid systems. <i>Nature Reviews Chemistry</i> , 2022, 6, 377-388.	30.2	11
30	Polarization holographic grating recording in the cholesteric azobenzene-containing films with the phototunable helix pitch. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014, 52, 773-781.	2.1	8
31	Polarization Gratings in Azobenzene-Based Fully Liquid Crystalline Triblock Copolymer. <i>Macromolecular Rapid Communications</i> , 2019, 40, 1900412.	3.9	8
32	Fluorescent and photooptical properties of H-bonded LC composites based on stilbazole derivative. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2011, 221, 22-29.	3.9	6
33	Photoinduced reorientation processes in thin films of photochromic LC polymers on substrates with a photocontrollable command surface. <i>Polymer Science - Series A</i> , 2010, 52, 812-823.	1.0	5
34	Laser-induced holographic light scattering in a liquid-crystalline azobenzene-containing polymer. <i>Physical Review E</i> , 2012, 85, 011704.	2.1	5
35	Holographic Structuring of Elastomer Actuator: First True Monolithic Tunable Elastomer Optics. <i>Advanced Materials</i> , 2016, 28, 10217-10223.	21.0	5
36	Crown-ether and azobenzene-containing liquid crystalline polymers: An influence of macromolecular architecture on optical properties and photoorientation processes. <i>Journal of Polymer Science Part A</i> , 2011, 49, 625-633.	2.3	4

#	ARTICLE	IF	CITATIONS
37	Conventional elastomers doped with benzophenone derivatives as effective media for all-optical fabrication of tunable diffraction elements. RSC Advances, 2016, 6, 51791-51800.	3.6	4
38	Fluorescent and photo-optical properties of hydrogen-bonded polymer liquid-crystalline composites based on derivatives of stilbazole and crown ethers. Polymer Science - Series A, 2011, 53, 623-632.	1.0	3
39	Reactive mesogens for ultraviolet-transparent liquid crystal polymer networks. Liquid Crystals, 2020, 47, 1569-1581.	2.2	2
40	Liquid crystal phase modulator integration on the TriPleX photonic platform. , 2019, , .		0