Dong Ki Yoon

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6885436/publications.pdf

Version: 2024-02-01

133 papers	3,018 citations	147801 31 h-index	233421 45 g-index
138 all docs	138 docs citations	138 times ranked	2682 citing authors

#	Article	IF	Citations
1	Internal structure visualization and lithographic use of periodic toroidal holes in liquid crystals. Nature Materials, 2007, 6, 866-870.	27.5	179
2	Smectic Liquid Crystal Defects for Selfâ€Assembling of Building Blocks and Their Lithographic Applications. Advanced Functional Materials, 2011, 21, 610-627.	14.9	94
3	Chirality-Preserving Growth of Helical Filaments in the B4 Phase of Bent-Core Liquid Crystals. Journal of the American Chemical Society, 2011, 133, 12656-12663.	13.7	75
4	Solventâ€Free Directed Patterning of a Highly Ordered Liquid Crystalline Organic Semiconductor via Templateâ€Assisted Selfâ€Assembly for Organic Transistors. Advanced Materials, 2013, 25, 6219-6225.	21.0	73
5	Confined Self-Assembly of Toric Focal Conic Domains (The Effects of Confined Geometry on the) Tj ETQq1 1 0.784314 rgBT /Overlock	3.5	71
6	Organization of the polarization splay modulated smectic liquid crystal phase by topographic confinement. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21311-21315.	7.1	70
7	Block copolymer multiple patterning integrated with conventional ArFlithography. Soft Matter, 2010, 6, 120-125.	2.7	64
8	Mussel-Inspired Anisotropic Nanocellulose and Silver Nanoparticle Composite with Improved Mechanical Properties, Electrical Conductivity and Antibacterial Activity. Polymers, 2016, 8, 102.	4.5	60
9	Optically Selective Microlens Photomasks Using Selfâ€Assembled Smectic Liquid Crystal Defect Arrays. Advanced Materials, 2010, 22, 2416-2420.	21.0	57
10	Multistep hierarchical self-assembly of chiral nanopore arrays. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14342-14347.	7.1	53
11	Surface Order in Thin Films of Self-Assembled Columnar Liquid Crystals. Macromolecules, 2002, 35, 3717-3721.	4.8	51
12	Mosaics of topological defects in micropatterned liquid crystal textures. Science Advances, 2018, 4, eaau8064.	10.3	50
13	Digital DNA detection based on a compact optofluidic laser with ultra-low sample consumption. Lab on A Chip, 2016, 16, 4770-4776.	6.0	47
14	Supramolecular Nanotubules as a Catalytic Regulator for Palladium Cations: Applications in Selective Catalysis. Angewandte Chemie - International Edition, 2017, 56, 11511-11514.	13.8	47
15	Chiral nematic self-assembly of minimally surface damaged chitin nanofibrils and its load bearing functions. Scientific Reports, 2016, 6, 23245.	3.3	46
16	Morphogenesis of liquid crystal topological defects during the nematic-smectic A phase transition. Nature Communications, 2017, 8, 15453.	12.8	46
17	Fabrication of two-dimensional dimple and conical microlens arrays from a highly periodic toroidal-shaped liquid crystal defect array. Journal of Materials Chemistry, 2010, 20, 6557.	6.7	45
18	Growth pathways of silver nanoplates in kinetically controlled synthesis: bimodal versus unimodal growth. RSC Advances, 2015, 5, 14266-14272.	3.6	43

#	Article	IF	Citations
19	Orientation of a Helical Nanofilament (B4) Liquidâ€Crystal Phase: Topographic Control of Confinement, Shear Flow, and Temperature Gradients. Advanced Materials, 2011, 23, 1962-1967.	21.0	42
20	Switchable Photonic Crystals Using One-Dimensional Confined Liquid Crystals for Photonic Device Application. ACS Applied Materials & Interfaces, 2017, 9, 3186-3191.	8.0	42
21	Self-assembled periodic liquid crystal defects array for soft lithographic template. Soft Matter, 2010, 6, 1426.	2.7	41
22	Fabrication of a Superhydrophobic Surface from a Smectic Liquidâ€Crystal Defect Array. Advanced Functional Materials, 2009, 19, 3008-3013.	14.9	39
23	Spontaneous Chirality Induction and Enantiomer Separation in Liquid Crystals Composed of Achiral Rod-Shaped 4-Arylbenzoate Esters. Journal of the American Chemical Society, 2009, 131, 15055-15060.	13.7	38
24	Alignment of helical nanofilaments on the surfaces of various self-assembled monolayers. Soft Matter, 2013, 9, 6185.	2.7	38
25	Arrangement and SERS Applications of Nanoparticle Clusters Using Liquid Crystalline Template. ACS Applied Materials & Interfaces, 2017, 9, 7787-7792.	8.0	38
26	Recent advances in the fabrication of nanotemplates from supramolecular self-organization. Journal of Materials Chemistry, 2009, 19, 9091.	6.7	37
27	Liquid crystal phases in confined geometries. Liquid Crystals, 2016, 43, 1951-1972.	2.2	37
28	Highly Oriented Liquid Crystal Semiconductor for Organic Field-Effect Transistors. ACS Central Science, 2018, 4, 1495-1502.	11.3	37
29	Microstructure arrays of DNA using topographic control. Nature Communications, 2019, 10, 2512.	12.8	36
30	Large-Area, Highly Aligned Cylindrical Perfluorinated Supramolecular Dendrimers Using Magnetic Fields. Advanced Materials, 2006, 18, 509-513.	21.0	32
31	Structural transitions and guest/host complexing of liquid crystal helical nanofilaments induced by nanoconfinement. Science Advances, 2017, 3, e1602102.	10.3	32
32	In-Plane Switching Mode for Liquid Crystal Displays Using a DNA Alignment Layer. ACS Applied Materials & Interfaces, 2015, 7, 13627-13632.	8.0	31
33	Highly Polarized Fluorescent Illumination Using Liquid Crystal Phase. ACS Applied Materials & Interfaces, 2016, 8, 3143-3149.	8.0	31
34	Orthogonal Liquid Crystal Alignment Layer: Templating Speed-Dependent Orientation of Chromonic Liquid Crystals. ACS Applied Materials & Interfaces, 2017, 9, 18355-18361.	8.0	31
35	Directed self-assembly of a helical nanofilament liquid crystal phase for use as structural color reflectors. NPG Asia Materials, 2019, 11, .	7.9	30
36	Reconfigurable Periodic Liquid Crystal Defect Array via Modulation of Electric Field. Advanced Materials Technologies, 2019, 4, 1900454.	5.8	29

#	Article	IF	Citations
37	Tomographic measurement of dielectric tensors at optical frequency. Nature Materials, 2022, 21, 317-324.	27.5	29
38	Self-assembled hydrophobic surface generated from a helical nanofilament (B4) liquid crystal phase. Soft Matter, 2013, 9, 2793.	2.7	28
39	Controlling Gaussian and mean curvatures at microscale by sublimation and condensation of smectic liquid crystals. Nature Communications, 2016, 7, 10236.	12.8	28
40	Control of Periodic Zigzag Structures of DNA by a Simple Shearing Method. Advanced Materials, 2017, 29, 1604247.	21.0	28
41	Three-dimensional textures and defects of soft material layering revealed by thermal sublimation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19263-19267.	7.1	27
42	Photomodulated Supramolecular Chirality in Achiral Photoresponsive Rodlike Compounds Nanosegregated from the Helical Nanofilaments of Achiral Bent-Core Molecules. ACS Applied Materials & Interfaces, 2015, 7, 22686-22691.	8.0	27
43	Simple Solvent Engineering for High-Mobility and Thermally Robust Conjugated Polymer Nanowire Field-Effect Transistors. ACS Applied Materials & Interfaces, 2018, 10, 29824-29830.	8.0	25
44	Surface Ordering of a Perfluorinated, Self-Assembled, Dendrimer on a Water Subphase. Langmuir, 2005, 21, 4989-4995.	3.5	24
45	Supramolecular Crystalline Sheets with Ordered Nanopore Arrays from Self-Assembly of Rigid-Rod Building Blocks. Angewandte Chemie - International Edition, 2004, 43, 6465-6468.	13.8	23
46	Photoluminescence Properties of a Perfluorinated Supramolecular Columnar Liquid Crystal with a Pyrene Core:Â Effects of the Ordering and Orientation of the Columns. Journal of Physical Chemistry B, 2006, 110, 20836-20842.	2.6	23
47	Highly Aligned Plasmonic Gold Nanorods in a DNA Matrix. Advanced Functional Materials, 2017, 27, 1703790.	14.9	23
48	Nanoscratching technique for highly oriented liquid crystal materials. Scientific Reports, 2018, 8, 9460.	3.3	23
49	Self-Organization of a Fan-Shaped Dendrimer at the Airâ^'Water Interface. Langmuir, 2003, 19, 1154-1158.	3.5	22
50	Periodic arrays of liquid crystalline torons in microchannels. RSC Advances, 2015, 5, 19279-19283.	3.6	22
51	Charge Transportation and Chirality in Liquid Crystalline Helical Network Phases of Achiral BTBTâ€Derived Polycatenar Molecules. Advanced Functional Materials, 2021, 31, 2102271.	14.9	22
52	Liquid-crystal periodic zigzags from geometrical and surface-anchoring-induced confinement: Origin and internal structure from mesoscopic scale to molecular level. Physical Review E, 2010, 82, 041705.	2.1	21
53	Alignment of the columnar liquid crystal phase of nano-DNA by confinement in channels. Liquid Crystals, 2012, 39, 571-577.	2.2	20
54	Supramolecular Nanopumps with Chiral Recognition for Moving Organic Pollutants from Water. ACS Applied Materials & Interfaces, 2019, 11, 31220-31226.	8.0	20

#	Article	IF	Citations
55	Advances in Soft Materials for Sustainable Electronics. Engineering, 2021, 7, 564-580.	6.7	20
56	Circularly Polarized Light Can Override and Amplify Asymmetry in Supramolecular Helices. Journal of the American Chemical Society, 2022, 144, 2657-2666.	13.7	20
57	Self assembled plate-like structures of single-walled carbon nanotubes by non-covalent hybridization with smectic liquid crystals. Carbon, 2010, 48, 774-780.	10.3	19
58	Synergistic assembly of nanoparticles in smectic liquid crystals. Soft Matter, 2015, 11, 7367-7375.	2.7	19
59	Direct Visualization of Optical Activity in Chiral Substances Using a Helical Nanofilament (B4) Liquid Crystal Phase. Advanced Optical Materials, 2019, 7, 1901399.	7.3	19
60	Mechanochromic Responses of Cholesteric Liquid Crystal Droplets with Nanoscale Periodic Helical Structures Showing Reversible and Tunable Structural Color. ACS Applied Polymer Materials, 2022, 4, 463-468.	4.4	19
61	Curvatures of smectic liquid crystals and their applications. Journal of Information Display, 2018, 19, 7-23.	4.0	18
62	Controllable liquid crystal defect arrays induced by an in-plane electric field and their lithographic applications. Journal of Materials Chemistry C, 2019, 7, 1713-1719.	5.5	18
63	Periodic Arrays of Chiral Domains Generated from the Self-Assembly of Micropatterned Achiral Lyotropic Chromonic Liquid Crystal. ACS Central Science, 2020, 6, 1964-1970.	11.3	18
64	Molecular Orientation Control of Liquid Crystal Organic Semiconductor for High-Performance Organic Field-Effect Transistors. ACS Applied Materials & Interfaces, 2021, 13, 11125-11133.	8.0	18
65	Physico-chemical confinement of helical nanofilaments. Soft Matter, 2015, 11, 3653-3659.	2.7	17
66	Grooving of nanoparticles using sublimable liquid crystal for transparent omniphobic surface. Journal of Colloid and Interface Science, 2018, 513, 585-591.	9.4	17
67	Orientation Control of Helical Nanofilament Phase and Its Chiroptical Applications. Crystals, 2020, 10, 675.	2.2	17
68	Alignment of Perfluorinated Supramolecular Columns on the Surfaces of Various Self-Assembled Monolayers. Macromolecules, 2005, 38, 5152-5157.	4.8	16
69	Multidimensional Helical Nanostructures in Multiscale Nanochannels. Langmuir, 2015, 31, 8156-8161.	3.5	16
70	Fabrication of periodic nanoparticle clusters using a soft lithographic template. Journal of Materials Chemistry C, 2015, 3, 4598-4602.	5.5	16
71	Topological defects and geometric memory across the nematicâ€“smectic A liquid crystal phase transition. Soft Matter, 2019, 15, 5835-5841.	2.7	16
72	Highly Oriented and Ordered Water-Soluble Semiconducting Polymers in a DNA Matrix. Chemistry of Materials, 2020, 32, 688-696.	6.7	16

#	Article	IF	Citations
73	Fabrication of Chiral M13 Bacteriophage Film by Evaporationâ€Induced Selfâ€Assembly. Small, 2021, 17, e2008097.	10.0	16
74	Linkage-length dependent structuring behaviour of bent-core molecules in helical nanostructures. Soft Matter, 2016, 12, 3326-3330.	2.7	15
75	Optofluidic ring resonator laser with an edible liquid laser gain medium. Optics Express, 2017, 25, 14043.	3.4	15
76	Nanoscratch-Directed Self-Assembly of Block Copolymer Thin Films. ACS Applied Materials & Interfaces, 2021, 13, 5772-5781.	8.0	15
77	Programmable Liquid Crystal Defect Arrays via Electric Field Modulation for Mechanically Functional Liquid Crystal Networks. ACS Applied Materials & Interfaces, 2021, 13, 36253-36261.	8.0	15
78	Twisted-nematic-mode liquid crystal display with a DNA alignment layer. Journal of Information Display, 2015, 16, 129-135.	4.0	14
79	Security use of the chiral photonic film made of helical liquid crystal structures. Nanoscale, 2020, 12, 21629-21634.	5.6	14
80	Orientation control over bent-core smectic liquid crystal phases. Liquid Crystals, 2014, 41, 328-341.	2.2	13
81	Orientation Control of Smectic Liquid Crystals via a Combination Method of Topographic Patterning and In-Plane Electric Field Application for a Linearly Polarized Illuminator. ACS Applied Materials & Interfaces, 2016, 8, 27942-27948.	8.0	13
82	Molecular Orientation of Liquid Crystals on Topographic Nanopatterns. ACS Applied Materials & Interfaces, 2016, 8, 17707-17712.	8.0	13
83	Orientation Control of Semiconducting Polymers Using Microchannel Molds. ACS Nano, 2020, 14, 12951-12961.	14.6	13
84	Creation of a superhydrophobic surface from a sublimed smectic liquid crystal. RSC Advances, 2014, 4, 26946-26950.	3.6	12
85	Creation of liquid-crystal periodic zigzags by surface treatment and thermal annealing. Soft Matter, 2015, 11, 8584-8589.	2.7	12
86	Directed Self-Assembly of Topological Defects of Liquid Crystals. Langmuir, 2018, 34, 2551-2556.	3.5	12
87	Role of Stimuli on Liquid Crystalline Defects: From Defect Engineering to Switchable Functional Materials. Materials, 2020, 13, 5466.	2.9	12
88	Switchable Plasmonic Film Using Nanoconfined Liquid Crystals. ACS Applied Materials & Interfaces, 2017, 9, 25057-25061.	8.0	11
89	Direct observation of liquid crystal phases under nanoconfinement: A grazing incidence X-ray diffraction study. Liquid Crystals, 2017, 44, 713-721.	2.2	11
90	Nanoconfinement of the Lowâ€Temperature Dark Conglomerate: Structural Control from Focal Conics to Helical Nanofilaments. Chemistry - A European Journal, 2019, 25, 7438-7442.	3.3	11

#	Article	IF	Citations
91	Fabrication of Arrays of Topological Solitons in Patterned Chiral Liquid Crystals for Realâ€Time Observation of Morphogenesis. Advanced Materials, 2022, 34, .	21.0	11
92	Selfâ€Regulated Smectic Emulsion with Switchable Lasing Application. Small, 2019, 15, 1903818.	10.0	10
93	Interesting phase behaviors and ion-conducting properties of dicationic N-alkylimidazolium tetrafluoroborate salts. RSC Advances, 2019, 9, 3972-3978.	3.6	10
94	Generation of 2D DNA Microstructures via Topographic Control and Shearing. Small, 2020, 16, e2002449.	10.0	10
95	Regioregularity-Dependent Crystalline Structures and Thermal Transitions in Poly(3-dodecylthiophene)s. Chemistry of Materials, 2021, 33, 3312-3320.	6.7	10
96	Spiral layer undulation defects in B7 liquid crystals. Soft Matter, 2013, 9, 11303.	2.7	9
97	Thermal phase transition behaviours of the blue phase of bent-core nematogen and chiral dopant mixtures under different boundary conditions. Soft Matter, 2014, 10, 8224-8228.	2.7	9
98	Nucleation and growth of a helical nanofilament (B4) liquid-crystal phase confined in nanobowls. Soft Matter, 2015, 11, 7778-7782.	2.7	9
99	Fast Fabrication of Sub-200-nm Nanogrooves Using Liquid Crystal Material. ACS Applied Materials & Interfaces, 2016, 8, 11851-11856.	8.0	9
100	The Renewable and Sustainable Conversion of Chitin into a Chiral Nitrogenâ€Doped Carbonâ€Sheath Nanofiber for Enantioselective Adsorption. ChemSusChem, 2019, 12, 3236-3242.	6.8	9
101	Optoelectrical and mechanical properties of multiwall carbon nanotube-integrated DNA thin films. Nanotechnology, 2019, 30, 245704.	2.6	9
102	Fabrication of Bilayer Dichroic Films Using Liquid Crystal Materials for Multiplex Applications. ACS Applied Materials & Interfaces, 2020, 12, 45315-45321.	8.0	8
103	Hierarchically Fabricated Amyloid Fibers via Evaporation-Induced Self-Assembly. ACS Nano, 2021, 15, 20261-20266.	14.6	8
104	Chiral Optoelectronic Functionalities via DNAâ€“Organic Semiconductor Complex. ACS Nano, 2021, 15, 20353-20363.	14.6	7
105	Nanoconfined heliconical structure of twist-bend nematic liquid crystal phase. Liquid Crystals, 2019, 46, 316-325.	2.2	6
106	Bilayer-folded lamellar mesophase induced by random polymer sequence. Nature Communications, 2022, 13, 2433.	12.8	6
107	Cybotactic behavior in the de Vries smectic-A* liquid-crystal structure formed by a silicon-containing molecule. Physical Review E, 2014, 89, 032502.	2.1	5
108	Direct transfer of multilayer graphene grown on a rough metal surface using PDMS adhesion engineering. Nanotechnology, 2016, 27, 365705.	2.6	5

#	Article	IF	Citations
109	Manipulation of Supramolecular Columnar Structures of Hâ€Bonded Donorâ€Acceptor Units through Geometrical Nanoconfinement. ChemPhysChem, 2019, 20, 890-897.	2.1	5
110	Light-Driven Fabrication of a Chiral Photonic Lattice of the Helical Nanofilament Liquid Crystal Phase. ACS Applied Materials & Interfaces, 2022, 14, 4409-4416.	8.0	5
111	Recyclable Periodic Nanostructure Formed by Sublimable Liquid Crystals for Robust Cell Alignment. Langmuir, 2022, 38, 3765-3774.	3.5	5
112	Precise orientation control of a liquid crystal organic semiconductor via anisotropic surface treatment. NPG Asia Materials, 2022, 14, .	7.9	5
113	Surface alignment and control of a dendritic liquid crystal in ultrathin films. Liquid Crystals, 2003, 30, 559-563.	2.2	4
114	A solution processible semiconducting polymer interlayer for blue light-emitting diodes. Nanotechnology, 2007, 18, 175608.	2.6	4
115	Airflow-aligned helical nanofilament (B4) phase in topographic confinement. Scientific Reports, 2016, 6, 29111.	3.3	4
116	Formation of periodic zigzag patterns in the twist-bend nematic liquid crystal phase by surface treatment. Liquid Crystals, 2017, , 1-9.	2.2	4
117	Nanofluidic chip for liquid TEM cell fabricated by parylene and silicon nitride direct bonding. Nanotechnology, 2017, 28, 375301.	2.6	4
118	Directing Polymorphism in the Helical Nanofilament Phase. Chemistry - A European Journal, 2021, 27, 7108-7113.	3.3	4
119	Dendritic growth in a two-dimensional smectic E freely suspended film. Molecular Systems Design and Engineering, 2020, 5, 815-819.	3.4	3
120	Orientation control of a synthetic columnar perfluorinated supramolecular dendrimer: Surface anchoring and magnetic-field induced alignments. Physica B: Condensed Matter, 2006, 385-386, 801-803.	2.7	2
121	Electro-tunable liquid crystal laser based on high-Q Fabry-PÃ©rot microcavity. Optics Express, 2017, 25, 874.	3.4	2
122	Security use of bilayer dichroic films made of liquid crystal polymer networks. Journal of Information Display, 2021, 22, 173-178.	4.0	2
123	Controlled nucleation in evaporative crystallization using confined- vapor driven solutal Marangoni effect. Soft Matter, 2022, , .	2.7	2
124	Optofluidic ring resonator laser with biocompatible liquid gain medium. , 2018, , .		1
125	Switchable Lasing: Selfâ€Regulated Smectic Emulsion with Switchable Lasing Application (Small 49/2019). Small, 2019, 15, 1970268.	10.0	1
126	Toward Organic Light Emitting Diode Satisfying Simultaneously Highly Enhanced Light Extraction and Lowly Ambient Light Reflection. Advanced Materials Technologies, 2022, 7, .	5.8	1

#	Article	IF	Citations
127	Orientation control of lyotropic chromonic liquid crystals in the capillary bridge. Journal of Materials Chemistry C, 2022, 10, 6878-6884.	5.5	1
128	Surface ordering of a rod-coil block molecule on the water subphase. Current Applied Physics, 2008, 8, 651-655.	2.4	0
129	Energy Transfer in a Ï€-Conjugated Liquid Crystalline Molecule with Two Chromophores of Rigid Biphenyl Core and Pyrene Head Moieties. Journal of Nanoscience and Nanotechnology, 2009, 9, 6968-73.	0.9	0
130	Fabrication of disordered porous structures by solvent-assisted reorganisation of liquid crystal materials. Liquid Crystals, 2016, 43, 1198-1207.	2.2	0
131	Frontispiece: Nanoconfinement of the Lowâ€Temperature Dark Conglomerate: Structural Control from Focal Conics to Helical Nanofilaments. Chemistry - A European Journal, 2019, 25, .	3.3	0
132	2D DNA Microstructures: Generation of 2D DNA Microstructures via Topographic Control and Shearing (Small 34/2020). Small, 2020, 16, 2070189.	10.0	0
133	M13 Bacteriophage: Fabrication of Chiral M13 Bacteriophage Film by Evaporationâ€Induced Selfâ€Assembly (Small 26/2021). Small, 2021, 17, 2170133.	10.0	0