

# Mathukumalli Madhu Mohan

## List of Publications by Year in descending order

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118  
papers

1,704  
citations

304368

22  
h-index

454577

30  
g-index

118  
all docs

118  
docs citations

118  
times ranked

454  
citing authors

#	ARTICLE	IF	CITATIONS
1	Double hydrogen bonded ferroelectric liquid crystals: A study of field induced transition (FiT). Solid State Communications, 2009, 149, 2090-2097.	0.9	57
2	Characterization of a new smectic ordering in supramolecular hydrogen bonded liquid crystals by X-ray, optical and dielectric studies. Journal of Molecular Liquids, 2013, 182, 79-90.	2.3	49
3	Thermal and dielectric studies of self-assembly systems formed by hydroquinone and alkyloxy benzoic acids. Physica B: Condensed Matter, 2011, 406, 1106-1113.	1.3	43
4	Synthesis and Characterization of Double Hydrogen Bonded Ferroelectric Liquid Crystals Exhibiting Reentrant Smectic Ordering. Ferroelectrics, 2009, 392, 81-97.	0.3	39
5	Characterization of a hydrogen bonded liquid crystal homologous series: Detailed FTIR studies in various mesophases. Journal of Molecular Structure, 2011, 994, 387-391.	1.8	38
6	Design, synthesis and application of hydrogen bonded smectic liquid crystal matrix encapsulated ZnO nanopikes. Journal of Materials Chemistry C, 2015, 3, 11907-11917.	2.7	37
7	Design and fabrication of an automated technique: measurement of spontaneous polarization in two new schiff base ferroelectric liquid crystals. Materials Research Bulletin, 1999, 34, 2167-2175.	2.7	36
8	Study of Intermolecular Hydrogen Bonding in p-n-Alkoxybenzoic Acids and Alkyl Aniline Homologous Series " Part I. Molecular Crystals and Liquid Crystals, 2009, 515, 39-48.	0.4	34
9	Double Hydrogen Bonded Liquid Crystals: A Study of Light Modulation and Field Induced Transition (FIT). Molecular Crystals and Liquid Crystals, 2010, 517, 113-126.	0.4	34
10	Design, synthesis and characterization of a linear hydrogen bonded homologous series. Physica B: Condensed Matter, 2012, 407, 859-867.	1.3	34
11	Emerging assembly of ZnO-nanowires/graphene dispersed liquid crystal for switchable device modulation. Organic Electronics, 2018, 56, 291-304.	1.4	34
12	A study of field induced transitions (FIT) in the nematic phase of an inter hydrogen bonded ferroelectric liquid crystal. Solid State Sciences, 2010, 12, 482-489.	1.5	29
13	Experimental evidence of an optical shutter in cholesteric phase of a double hydrogen bonded liquid crystal. Brazilian Journal of Physics, 2009, 39, .	0.7	29
14	Inter hydrogen bonded complexes of hexadecylaniline and alkoxy benzoic acids: a study of crystallization kinetics. Brazilian Journal of Physics, 2009, 39, 600-605.	0.7	28
15	Occurrence of Ambient Temperature and Reentrant Smectic Ordering in an Intermolecular Hydrogen Bonding between Alkyl Aniline and Alkoxy Benzoic Acids. Molecular Crystals and Liquid Crystals, 2010, 524, 131-143.	0.4	28
16	Thermal analysis of hydrogen bonded benzoic acid liquid crystals. Journal of Thermal Analysis and Calorimetry, 2013, 113, 811-820.	2.0	28
17	CdS nanowires encapsulated liquid crystal in-plane switching of LCD device. Journal of Materials Science: Materials in Electronics, 2018, 29, 10301-10310.	1.1	28
18	Systematic studies on eight homologous series of supramolecular hydrogen bonded liquid crystals. Phase Transitions, 2013, 86, 339-360.	0.6	27

#	ARTICLE	IF	CITATIONS
19	Characterization of Hydrogen Bonded Liquid Crystals Formed by Suberic Acid and Alkyl Benzoic Acids. <i>Molecular Crystals and Liquid Crystals</i> , 2013, 587, 60-79.	0.4	27
20	Thermal and Electrical Characterization of a Ferro Electric Liquid Crystal. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2008, 39, 1192-1195.	1.1	26
21	A Study of Reentrant Smectic Ordering in Hydrogen Bonded Ferroelectric Dodecyloxy Benzoic Acid and Tartaric Acid Liquid Crystal. <i>Molecular Crystals and Liquid Crystals</i> , 2010, 517, 43-62.	0.4	26
22	Evidence of re-entrant ferroelectric ordering in an achiral AFLC: a detailed study by spontaneous polarization. <i>Liquid Crystals</i> , 2000, 27, 1533-1537.	0.9	23
23	Study and characterization of the smectic X* phase in binary mixtures of thermotropic double hydrogen bonded ferroelectric liquid crystals. <i>Phase Transitions</i> , 2015, 88, 907-928.	0.6	23
24	Field induced intra-smectic C* transition in a novel AFLC compound. <i>Ferroelectrics</i> , 1999, 227, 105-121.	0.3	22
25	Optical, thermal and dielectric studies in linear hydrogen bonded liquid crystal homologous series. <i>Journal of Molecular Structure</i> , 2011, 1000, 69-76.	1.8	22
26	Thermal and Dielectric Investigations on Supramolecular Hydrogen Bonded Liquid Crystals. <i>Molecular Crystals and Liquid Crystals</i> , 2012, 569, 72-91.	0.4	22
27	Influence of ZnO nanostructures in liquid crystal interfaces for bistable switching applications. <i>Applied Surface Science</i> , 2015, 357, 1499-1510.	3.1	22
28	Study of optical shuttering action in supramolecular hydrogen bonded nematogens. <i>Phase Transitions</i> , 2012, 85, 973-994.	0.6	21
29	Influence of spacer and flexible chain on polymorphism in complementary hydrogen bonded liquid crystal dimers, SA:nOBAs. <i>Journal of Molecular Liquids</i> , 2015, 207, 294-308.	2.3	21
30	Synthesis of Novel Ferroelectric Liquid Crystals Derived from L-tyrosine. <i>Molecular Crystals and Liquid Crystals</i> , 1998, 325, 127-135.	0.3	20
31	Double Hydrogen Bonded Liquid Crystals Formed by Glutaric Acid. <i>Molecular Crystals and Liquid Crystals</i> , 2013, 574, 19-32.	0.4	20
32	Synthesis and Characterization of Supramolecular Hydrogen-Bonded Liquid Crystals Comprising of p-n-Alkyloxy Benzoic Acids with Suberic Acid and Pimelic Acid. <i>Molecular Crystals and Liquid Crystals</i> , 2013, 571, 40-56.	0.4	19
33	Thermal, Optical, and Dielectric Analysis of Hydrogen-Bonded Liquid Crystals Formed by Adipic and Alkyloxy Benzoic Acids. <i>Molecular Crystals and Liquid Crystals</i> , 2014, 592, 63-81.	0.4	19
34	Switchable, self-assembled CdS nanomaterials embedded in liquid crystal cell for high performance static memory device. <i>Materials Letters</i> , 2016, 169, 37-41.	1.3	19
35	Crystallization kinetics study on N-(p-n-alkyloxybenzylidene)-p-n-alkylanilines (nO.m compounds). <i>Liquid Crystals</i> , 2000, 27, 727-735.	0.9	18
36	Dispersion of multi walled carbon nanotubes in a hydrogen bonded liquid crystal. <i>Physica B: Condensed Matter</i> , 2010, 405, 4418-4423.	1.3	18

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37	Experimental and theoretical investigation of p-n alkoxy benzoic acid based liquid crystals – A DFT approach. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 123, 511-523.	2.0	18
38	Binary Mixtures of Hydrogen-Bonded Ferroelectric Liquid Crystals: Thermal Span Enhancement in Smectic X* Phase. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2015, 70, 757-774.	0.7	18
39	Smart in-plane switching of nanowires embedded liquid crystal matrix. <i>Organic Electronics</i> , 2017, 42, 256-268.	1.4	18
40	Crystallization Kinetics Study on Tilted Ordering in N-(p-n-Alkoxybenzylidene)-p-n-Alkylanilines (nO-m) Tj ETQq0 0 0 rgBT /Overlock 10 1 2008, 493, 17-30.	0.4	17
41	Influence of Terminal Groups on the Mesogenic Properties of Self-Assembly Systems. <i>Molecular Crystals and Liquid Crystals</i> , 2011, 548, 142-154.	0.4	17
42	Evaluation of Versatile CdS Nanomaterials Based Liquid Crystals Switchable Device. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 2401-2412.	0.9	17
43	Thermal analysis of hydrogen-bonded ferroelectric liquid crystals. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017, 128, 369-386.	2.0	17
44	Thermal Analysis of Supramolecular Hydrogen-Bonded Liquid Crystals Formed by Nonyloxy and Alkyl Benzoic Acids. <i>Molecular Crystals and Liquid Crystals</i> , 2013, 574, 96-113.	0.4	16
45	Design, synthesis and characterization of hydrogen bonded thermotropic liquid crystals. <i>Molecular Crystals and Liquid Crystals</i> , 2017, 648, 35-52.	0.4	16
46	Design, synthesis and characterization of a linear hydrogen bonded homologous series exhibiting reentrant smectic C ordering. <i>Journal of Physics and Chemistry of Solids</i> , 2012, 73, 1203-1212.	1.9	15
47	Dynamic application of novel electro-optic switchable device modulation by graphene oxide dispersed liquid crystal cell assembling CdS nanowires. <i>Organic Electronics</i> , 2016, 39, 25-37.	1.4	15
48	Investigations on smectic X* and re-entrant smectic C* orderings in hydrogen bonded ferroelectric liquid crystals. <i>Journal of Molecular Liquids</i> , 2019, 273, 504-524.	2.3	15
49	Study and Characterization of Double Hydrogen-Bonded Liquid Crystals Comprising p-n Alkoxy Benzoic Acids with Azelaic and Dodecane Dicarboxylic Acids. <i>Molecular Crystals and Liquid Crystals</i> , 2011, 537, 36-50.	0.4	14
50	Thermally controlled optical shutter in an inter-molecular hydrogen bonded liquid crystal. <i>Physica B: Condensed Matter</i> , 2011, 406, 4139-4144.	1.3	14
51	Study of thermal and electrical properties exhibited by two ferroelectric self assembly systems. <i>Journal of Molecular Structure</i> , 2011, 991, 60-67.	1.8	14
52	Design and characterization of hydrogen bonded ferroelectric liquid crystals: A study of light modulation in nematic and smectic orderings. <i>Optik</i> , 2012, 123, 1044-1050.	1.4	14
53	Comparison of mesomorphic properties exhibited by linear hydrogen bonded thermotropic liquid crystals. <i>Molecular Crystals and Liquid Crystals</i> , 2016, 631, 74-91.	0.4	14
54	A detailed study of hydrogen bonded ferroelectric mesogens formed between alkyl and alkyloxy benzoic acids with carbamyl glutamic acid. <i>Liquid Crystals</i> , 2018, 45, 431-449.	0.9	14

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55	Fabrication of Ferroelectric Liquid Crystal Thermistor. IEEE Transactions on Electron Devices, 2020, 67, 5063-5068.	1.6	14
56	Spontaneous polarization, tilt angle and dielectric measurements on a ferroelectric liquid crystal. Liquid Crystals, 1999, 26, 1609-1613.	0.9	14
57	Study of Optical Shutter in Cholesteric Phase of a Double Hydrogen-Bonded Ferroelectric Liquid Crystal with Two Chiral Carbons. Molecular Crystals and Liquid Crystals, 2010, 528, 163-177.	0.4	13
58	Optical modulation in nematic phase of halogen substituted hydrogen bonded liquid crystals. Phase Transitions, 2012, 85, 113-130.	0.6	13
59	Analysis of hydrogen-bonded liquid crystals formed between nitro-substituted benzoic acid and p-n-alkyloxy benzoic acids. Molecular Crystals and Liquid Crystals, 2016, 631, 47-63.	0.4	13
60	Thermal and optical characterization of a novel series of supramolecular liquid crystals. Physica B: Condensed Matter, 2012, 407, 3709-3716.	1.3	12
61	Thermal and Optical Properties of Self-Assembly Systems: Two Pairs of Distinct Structural Isomers. Molecular Crystals and Liquid Crystals, 2012, 557, 144-160.	0.4	12
62	Comparison of supramolecular hydrogen bonded liquid crystals. Phase Transitions, 2012, 85, 149-158.	0.6	12
63	Study of Self Assembly Systems Formed by Malic Acid and Alkyloxy Benzoic Acids. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2010, 65, 1156-1164.	0.7	11
64	Design, Synthesis and Characterization of Hydrogen-Bonded Ferroelectric Liquid Crystals. Molecular Crystals and Liquid Crystals, 2010, 524, 54-67.	0.4	11
65	Optical shuttering action in nematic phase of SMHBLC: observation of a ribbon-like texture. Phase Transitions, 2012, 85, 592-607.	0.6	11
66	Spontaneous polarization analysis in hydrogen bonded ferroelectric liquid crystals. Phase Transitions, 2014, 87, 491-508.	0.6	11
67	Linear Double Hydrogen-bonded Thermotropic Liquid Crystals Formed Between Oxaloacetic Acid and p-n-Alkyloxy Benzoic Acids. Molecular Crystals and Liquid Crystals, 2016, 626, 169-182.	0.4	11
68	Optical and thermal characterization of double hydrogen bonded liquid crystals: Binary mixtures. Ferroelectrics, 2018, 524, 102-137.	0.3	11
69	Spontaneous polarization, tilt angle and dielectric measurements on a ferroelectric liquid crystal. Liquid Crystals, 1999, 26, 1609-1613.	0.9	10
70	THERMAL, FERROELECTRIC AND DIELECTRIC STUDIES ON TWO DISTINCT STRUCTURAL ISOMERS: A FIELD INDUCED TRANSITION IN PSEUDO-NEMATIC PHASE. Molecular Crystals and Liquid Crystals, 2001, 366, 431-455.	0.3	10
71	Experimental Evidence of an Ambient Ferroelectric Phase and a Low Frequency-Induced Transition in an Achiral Mesogen. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2008, 63, 435-439.	0.7	10
72	Optical Shuttering and Filtering Action in Nematogens of Supra Molecular Hydrogen-Bonded Liquid Crystals. Molecular Crystals and Liquid Crystals, 2012, 557, 190-205.	0.4	10

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73	Thermal Analysis, Calorimetric and Electrical Polarization Studies in Smectic X* Phase of Hydrogen-Bonded Ferroelectric Liquid Crystals. <i>Molecular Crystals and Liquid Crystals</i> , 2015, 606, 12-35.	0.4	10
74	Chemical and optical characterization of linear hydrogen bonded thermotropic liquid crystal dimers. <i>Optik</i> , 2017, 143, 42-58.	1.4	10
75	Design, synthesis and characterization of hydrogen bonded liquid crystals formed between methyl malonic acid and p-n-alkyloxy/alkyl benzoic acids. <i>Molecular Crystals and Liquid Crystals</i> , 2017, 652, 23-40.	0.4	10
76	An Innovative Technique to Achieve Tunable Filtering Action by Ferroelectric Material in Infrared Region. <i>Journal of Electronic Materials</i> , 2020, 49, 2311-2316.	1.0	10
77	Investigations on Hydrogen-Bonded Liquid Crystals Formed by P-N Alkyl Benzoic Acids and Dodecane Dicarboxylic Acids. <i>Molecular Crystals and Liquid Crystals</i> , 2016, 626, 193-206.	0.4	9
78	Study of Optical and Dielectrical Properties in a Homologous Series of Bent Liquid Crystals Formed by Self Assembly Systems. <i>Ferroelectrics</i> , 2011, 425, 114-128.	0.3	8
79	A study on polymorphism of hydrogen-bonded thermotropic liquid crystals. <i>Phase Transitions</i> , 2016, 89, 928-943.	0.6	8
80	Dielectric Relaxations in Nematic Phase of Hydrogen Bonded Liquid Crystal Homologous Series. <i>Ferroelectrics</i> , 2011, 413, 156-169.	0.3	7
81	Study of Optical and Electrical Properties in Nematic Phase of Self Assembly Systems. <i>Molecular Crystals and Liquid Crystals</i> , 2011, 548, 73-85.	0.4	7
82	Design and Synthesis of Linear and Bow Shaped Ferroelectric Liquid Crystal Isomers Derived From L-Tyrosine. <i>Molecular Crystals and Liquid Crystals</i> , 2000, 350, 141-149.	0.3	6
83	Functionalized Graphene Oxide Dispersed Hydrogen Bonded Liquid Crystals Efficient Electro-Optical Switching. <i>Journal of Display Technology</i> , 2016, 12, 281-287.	1.3	6
84	Realization of memory effect in smectic X* phase. <i>Journal of Molecular Structure</i> , 2018, 1168, 302-308.	1.8	6
85	The measurement of electrostriction coefficients of some XH <sub>2</sub> PO <sub>4</sub> /H <sub>3</sub> BO <sub>3</sub> binaries by interferometric technique. <i>Bulletin of Materials Science</i> , 1995, 18, 599-602.	0.8	5
86	Crystallization Kinetics Study in Orthogonal Liquid Crystalline Phases Formed by Schiff's Base nO.m Compounds by Calorimetric and Dielectric Techniques – Part 2. <i>Molecular Crystals and Liquid Crystals</i> , 2009, 515, 49-63.	0.4	5
87	Ambient Smectic Ordering in Hydrogen-Bonded Liquid Crystal Homologous Series. <i>Molecular Crystals and Liquid Crystals</i> , 2011, 537, 22-35.	0.4	5
88	Birefringence Study in Hydrogen Bonded Complexes. <i>Molecular Crystals and Liquid Crystals</i> , 2014, 592, 163-180.	0.4	5
89	Dielectric Investigations in a Room Temperature Ferroelectric Liquid Crystal. <i>Molecular Crystals and Liquid Crystals</i> , 2019, 681, 32-44.	0.4	5
90	Studies on thermotropic hydrogen bonded binary mixtures. <i>Molecular Crystals and Liquid Crystals</i> , 2019, 690, 23-42.	0.4	5

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91	Phase-segregated hydrogen bonded thermotropic liquid crystal's optical shuttering response and electro-optical sensor application. <i>Materials Letters</i> , 2021, 305, 130821.	1.3	5
92	Crystal structure studies of mixed system of NaH <sub>2</sub> PO <sub>4</sub> and KH <sub>2</sub> PO <sub>4</sub> with H <sub>3</sub> BO <sub>3</sub> . <i>Bulletin of Materials Science</i> , 1992, 15, 385-387.	0.8	4
93	Electrical and Optical Studies of Hydrogen Bonded Ferroelectric Liquid Crystals Dispersed with MWCNT. <i>Journal of Dispersion Science and Technology</i> , 2012, 33, 111-116.	1.3	4
94	Dielectric and Optical Studies in Smectic C of A Novel Hydrogen Bonded Liquid Crystal Homologous Series. <i>Molecular Crystals and Liquid Crystals</i> , 2012, 562, 177-190.	0.4	4
95	Calorimetric investigations of hydrogen-bonded liquid crystal binary mixtures. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 134, 1799-1822.	2.0	4
96	Camphoric acid based ferroelectric hydrogen bonded liquid crystalline materials integration further dielectric relaxations and novel applications. <i>Journal of Molecular Structure</i> , 2021, 1232, 130022.	1.8	4
97	Dielectric responses and stimulative optical shuttering action of self-assembly supramolecular hydrogen bond liquid crystalline formation via x- and y-types benzoic acids. <i>Journal of Molecular Liquids</i> , 2021, 343, 117386.	2.3	4
98	X-ray data for the substitutional solid solution of the binary system ammonium dihydrogen phosphate with boric acid. <i>Bulletin of Materials Science</i> , 1994, 17, 205-207.	0.8	3
99	Liquid Crystal Research: Current Trends and Future Perspectives. <i>Advances in Condensed Matter Physics</i> , 2013, 2013, 1-2.	0.4	3
100	Analysis of optical and thermal properties of double hydrogen bonded liquid crystal binary mixtures. <i>Molecular Crystals and Liquid Crystals</i> , 2017, 652, 111-125.	0.4	3
101	Optical, thermal and electrical investigations in two homologous series of hydrogen bonded ferroelectric liquid crystals. <i>Molecular Crystals and Liquid Crystals</i> , 2018, 675, 1-18.	0.4	3
102	Investigation on two homologous series of ferroelectric hydrogen bond liquid crystals derived from camphoric acid and alkyloxy/alkyl benzoic acids. <i>Journal of Molecular Structure</i> , 2021, 1231, 129678.	1.8	3
103	Diversified Applications Of Hydrogen Bond Liquid Crystals. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1084, 012089.	0.3	3
104	Investigations of CdS Nanostructures Encapsulated in Soft Self-Assembled Thermotropic Liquid Crystals Matrix. <i>Science of Advanced Materials</i> , 2016, 8, 1331-1344.	0.1	3
105	Characterisation of ferroelectric lithium ammonium sulphate binary systems. <i>Materials Research Bulletin</i> , 2005, 40, 850-860.	2.7	2
106	Crystallization kinetics study on tilted ordering in N-(p-n-alkoxybenzylidene)-p-n-alkylanilines (nO.m) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 1310-1315.	1.3	2
107	Design, Synthesis and Analysis of Chlorohydroquinone Derivatives' Liquid Crystalline Complexes. <i>Molecular Crystals and Liquid Crystals</i> , 2014, 593, 78-92.	0.4	2
108	Influence of MWCNT on the properties of hydrogen bonded liquid crystals. <i>Molecular Crystals and Liquid Crystals</i> , 2017, 652, 172-184.	0.4	2

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109	Detection of phase transitions in liquid crystals through optical, thermal and electrical techniques. <i>Optik</i> , 2022, 258, 168951.	1.4	2
110	Dilatometric and dielectric studies on phase transition of potassium dihydrogen phosphate-boric acid binary system. <i>Bulletin of Materials Science</i> , 1997, 20, 637-642.	0.8	1
111	Study of Field Induced Transition (FiT) and Analysis of Crystallization Kinetics in the Nematic Phase of an Interhydrogen Bonded Nanoliquid Crystals. <i>Journal of Dispersion Science and Technology</i> , 2012, 33, 623-630.	1.3	1
112	Analysis of linear hydrogen bonded liquid crystal binary mixtures formed between palmitic acid and p-n-alkoxy benzoic acids. <i>Ferroelectrics</i> , 2020, 554, 110-133.	0.3	1
113	Comprehension of logic gates through liquid crystals. <i>Optik</i> , 2020, 223, 165611.	1.4	1
114	Liquid crystalline light modulation mechanism and shuttering applications. , 2022, , 141-160.		1
115	Thermomechanical studies on phase transition of KNO <sub>2</sub> -H <sub>3</sub> BO <sub>3</sub> binary. <i>Bulletin of Materials Science</i> , 1996, 19, 657-660.	0.8	0
116	Calorimetric study of smectic x* and validation of dynamic memory in ferroelectric binary complexes. <i>Journal of Thermal Analysis and Calorimetry</i> , 0, , 1.	2.0	0
117	Crystallization Kinetics Study on Orthogonal Ordering in N-(p-n-Alkoxybenzylidene)-p-n-Alkylanilines (nO.m Compounds) by Thermal and Electrical Techniques. Part I. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2009, 64, 354-360.	0.7	0
118	Superior fast switching of surface-stabilized liquid crystal switchable devices employing graphene dispersion. , 2022, , 185-199.		0