

Chang-Hyun Jang

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

94
papers

1,427
citations

22
h-index

33
g-index

96
ext. papers

1,716
ext. citations

4.4
avg, IF

5.58
L-index

#	Paper	IF	Citations
94	Ultrasensitive colorimetric detection of amoxicillin based on Tris-HCl-induced aggregation of gold nanoparticles.. <i>Analytical Biochemistry</i> , 2022 , 114634	3.1	1
93	A Label-Free Liquid Crystal Biosensor Based on Specific DNA Aptamer Probes for Sensitive Detection of Amoxicillin Antibiotic. <i>Micromachines</i> , 2021 , 12,	3.3	6
92	An acetylcholinesterase-based biosensor for the detection of pesticides using liquid crystals confined in microcapillaries. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021 , 200, 111587	6	5
91	Cobalt-modified 2D porous organic polymer for highly efficient electrocatalytic removal of toxic urea and nitrophenol. <i>Chemosphere</i> , 2021 , 265, 129052	8.4	5
90	Simple, sensitive technique for Amylase detection facilitated by liquid crystal-based microcapillary sensors. <i>Microchemical Journal</i> , 2021 , 162, 105864	4.8	3
89	Liquid Crystal-Based Droplet Sensor for the Detection of Hg(II) Ions Using an Aptamer as the Recognition Element. <i>Biochip Journal</i> , 2021 , 15, 152-161	4	3
88	A Cationic Surfactant-Decorated Liquid Crystal-Based Aptasensor for Label-Free Detection of Malathion Pesticides in Environmental Samples. <i>Biosensors</i> , 2021 , 11,	5.9	7
87	Detection of arginase through the optical behaviour of liquid crystals due to the pH-dependent adsorption of stearic acid at the aqueous/liquid crystal interface. <i>Sensors and Actuators B: Chemical</i> , 2021 , 339, 129906	8.5	3
86	Liquid crystal-based aptasensor to detect ractopamine hydrochloride at a femtomolar level. <i>Microchemical Journal</i> , 2021 , 106861	4.8	0
85	A Liquid Crystal Sensor Supported on an Aptamer-Immobilized Surface for Specific Detection of Ochratoxin A. <i>IEEE Sensors Journal</i> , 2021 , 21, 27414-27421	4	0
84	Label-free liquid crystal-based biosensor for detection of dopamine using DNA aptamer as a recognition probe. <i>Analytical Biochemistry</i> , 2020 , 605, 113807	3.1	12
83	Label-free sensitive detection of MUC1 using a liquid crystal based-system. <i>Liquid Crystals</i> , 2020 , 47, 1784-1793	4.9	5
82	Sensitive and label-free liquid crystal-based optical sensor for the detection of malathion. <i>Analytical Biochemistry</i> , 2020 , 593, 113589	3.1	16
81	Label-free liquid crystal-based detection of As(III) ions using ssDNA as a recognition probe. <i>Microchemical Journal</i> , 2020 , 156, 104834	4.8	23
80	A label-free liquid crystal droplet-based sensor used to detect lead ions using single-stranded DNAzyme. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020 , 604, 125304	5.1	7
79	Liquid-crystal-droplet-based Monitoring System for Water-soluble Inorganic Acidic Gases from the Atmosphere. <i>Biochip Journal</i> , 2020 , 14, 258-267	4	5
78	Fabrication of Liquid Crystal Droplet Patterns for Monitoring Aldehyde Vapors. <i>ChemPlusChem</i> , 2019 , 84, 1554-1559	2.8	4

77	Simple and Label-Free Liquid Crystal-based Optical Sensor for Highly Sensitive and Selective Endotoxin Detection by Aptamer Binding and Separation. <i>ChemistrySelect</i> , 2019 , 4, 1416-1422	1.8	12
76	Nanoparticle-assisted optical sensor for clinical diagnosis of tuberculosis. <i>Microchemical Journal</i> , 2019 , 147, 941-947	4.8	4
75	Liquid crystal-based aptamer sensor for sensitive detection of bisphenol A. <i>Microchemical Journal</i> , 2019 , 146, 1064-1071	4.8	15
74	A Simple Liquid Crystal-based Aptasensor Using a Hairpin-shaped Aptamer for the Bare-Eye Detection of Carcinoembryonic Antigen. <i>Biochip Journal</i> , 2019 , 13, 352-361	4	9
73	Liquid crystal-based aptasensor for the detection of interferon- γ and its application in the diagnosis of tuberculosis using human blood. <i>Sensors and Actuators B: Chemical</i> , 2019 , 282, 574-579	8.5	37
72	Sensitive and selective method for detecting cysteine based on optical properties of liquid crystal. <i>Sensors and Actuators B: Chemical</i> , 2018 , 269, 135-142	8.5	22
71	Liquid crystal as sensing platforms for determining the effect of graphene oxide-based materials on phospholipid membranes and monitoring antibacterial activity. <i>Sensors and Actuators B: Chemical</i> , 2018 , 254, 72-80	8.5	22
70	Label-free optical detection of aflatoxin by using a liquid crystal-based immunosensor. <i>Microchemical Journal</i> , 2018 , 142, 335-342	4.8	9
69	Imaging DNA single-strand breaks generated by reactive oxygen species using a liquid crystal-based sensor. <i>Analytical Biochemistry</i> , 2018 , 556, 1-6	3.1	9
68	Lipase Functionalization of Silica-coated Biotemplated and Nonbiotemplated Magnetic Nanoparticles. <i>Bulletin of the Korean Chemical Society</i> , 2018 , 39, 1400-1405	1.2	1
67	Detection of catalase activity with aldehyde-doped liquid crystals confined in microcapillaries. <i>Analytical Biochemistry</i> , 2018 , 560, 19-23	3.1	4
66	Label-free optical detection of thrombin using a liquid crystal-based aptasensor. <i>Microchemical Journal</i> , 2018 , 141, 71-79	4.8	27
65	Liquid crystal-based capillary sensory platform for the detection of bile acids. <i>Chemistry and Physics of Lipids</i> , 2017 , 204, 10-14	3.7	9
64	Liquid-Crystal-Based Immunosensor for Diagnosis of Tuberculosis in Clinical Specimens. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 21209-21215	9.5	18
63	Visualization of cholyglycine hydrolase activities through nickel nanoparticle-assisted liquid crystal cells. <i>Sensors and Actuators B: Chemical</i> , 2017 , 239, 1268-1274	8.5	7
62	Micro-capillary sensor for imaging trypsin activity using confined nematic liquid crystals. <i>Journal of Molecular Liquids</i> , 2016 , 222, 596-600	6	6
61	Selective and direct detection of free amino acid using the optical birefringent patterns of confined nematic liquid crystals. <i>Liquid Crystals</i> , 2016 , 1-9	2.3	
60	Optimization of a Liquid Crystal-based Sensory Platform for Monitoring Enzymatic Glucose Oxidation. <i>Bulletin of the Korean Chemical Society</i> , 2016 , 37, 643-648	1.2	2

59	Optical imaging of cholyglycine by using liquid crystal droplet patterns on solid surfaces. <i>Journal of Materials Science</i> , 2016 , 51, 2033-2040	4.3	8
58	Diagnosis of tuberculosis using a liquid crystal-based optical sensor. <i>Macromolecular Research</i> , 2016 , 24, 123-130	1.9	12
57	Parallel Detection of Anti-Tuberculosis Antibodies upon a Liquid Crystal-based Optical Sensor. <i>Bulletin of the Korean Chemical Society</i> , 2016 , 37, 1644-1651	1.2	3
56	Real-space observation of internal ordering configurations of sessile liquid crystal micro-droplets. <i>Liquid Crystals</i> , 2016 , 43, 1293-1298	2.3	8
55	A new liquid crystal-based method to study disruption of phospholipid membranes by sodium deoxycholate. <i>Liquid Crystals</i> , 2016 , 1-9	2.3	0
54	Nematic liquid crystals confined in microcapillaries for imaging phenomena at liquid-liquid interfaces. <i>Soft Matter</i> , 2015 , 11, 6999-7004	3.6	16
53	Liquid crystal sensor for the detection of acetylcholine using acetylcholinesterase immobilized on a nanostructured polymeric surface. <i>Colloid and Polymer Science</i> , 2015 , 293, 2771-2779	2.4	7
52	Nematic liquid crystal micro-droplets on solid surfaces and their ordering transition in bulk aqueous solution. <i>Liquid Crystals</i> , 2015 , 42, 1436-1443	2.3	12
51	Detection of cholesterol molecules with a liquid crystal-based pH-driven sensor. <i>Journal of Materials Science</i> , 2015 , 50, 4741-4748	4.3	23
50	Imaging the oxidation effects of the Fenton reaction on phospholipids at the interface between aqueous phase and thermotropic liquid crystals. <i>Journal of Bioscience and Bioengineering</i> , 2015 , 120, 193-8	3.3	8
49	Anchoring Transitions of Liquid Crystals for Optical Amplification of Phospholipid Oxidation Inhibition by Ascorbic Acid. <i>Analytical Sciences</i> , 2015 , 31, 1329-33	1.7	3
48	Optical birefringence of liquid crystals for label-free optical biosensing diagnosis. <i>International Journal of Nanomedicine</i> , 2015 , 10 Spec Iss, 25-32	7.3	3
47	pH-Driven adsorption and desorption of fatty acid at the liquid crystal/water interface. <i>Liquid Crystals</i> , 2015 , 1-8	2.3	2
46	Detection of mRNA from Escherichia coli in drinking water on nanostructured polymeric surfaces using liquid crystals. <i>Colloid and Polymer Science</i> , 2014 , 292, 1163-1169	2.4	7
45	Imaging catalase reactions through interactions between liquid crystals and oil-in-water emulsions. <i>Liquid Crystals</i> , 2014 , 41, 163-168	2.3	6
44	Sensitive detection of trypsin using liquid-crystal droplet patterns modulated by interactions between poly-L-lysine and a phospholipid monolayer. <i>ChemPhysChem</i> , 2014 , 15, 2569-74	3.2	14
43	Label-free detection of viruses on a polymeric surface using liquid crystals. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014 , 116, 147-52	6	33
42	Detection of heavy-metal ions using liquid crystal droplet patterns modulated by interaction between negatively charged carboxylate and heavy-metal cations. <i>Talanta</i> , 2014 , 128, 44-50	6.2	40

41	A new strategy for imaging urease activity using liquid crystal droplet patterns formed on solid surfaces. <i>Sensors and Actuators B: Chemical</i> , 2014 , 193, 770-773	8.5	38
40	Real-time and sensitive detection of lipase using liquid crystal droplet patterns supported on solid surfaces. <i>Liquid Crystals</i> , 2014 , 41, 597-602	2.3	17
39	Highly sensitive and selective glucose sensor based on ultraviolet-treated nematic liquid crystals. <i>Biosensors and Bioelectronics</i> , 2014 , 59, 293-9	11.8	46
38	Liquid crystal-based detection of thrombin coupled to interactions between a polyelectrolyte and a phospholipid monolayer. <i>Analytical Biochemistry</i> , 2014 , 455, 13-9	3.1	22
37	Liquid Crystal Droplet Patterns to Monitor Catalase Activity at Femtomolar Levels. <i>Bulletin of the Korean Chemical Society</i> , 2014 , 35, 2704-2710	1.2	6
36	A simple strategy for detecting synthetic polymers on solid surfaces using liquid crystal. <i>Colloid and Polymer Science</i> , 2013 , 291, 2689-2696	2.4	3
35	Oriental behaviors of liquid crystals coupled to chitosan-disrupted phospholipid membranes at the aqueous-liquid crystal interface. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013 , 108, 142-6	6	18
34	Spontaneous formation of micrometer-scale liquid crystal droplet patterns on solid surfaces and their sensing applications. <i>Soft Matter</i> , 2013 , 9, 5779	3.6	35
33	Dynamic imaging of enzymatic events at polyelectrolyte-disrupted phospholipid membranes using liquid crystals. <i>Liquid Crystals</i> , 2013 , 40, 106-111	2.3	6
32	Liquid Crystal Based Optical Sensor for Imaging Trypsin Activity at Interfaces Between Aqueous Phases and Thermotropic Liquid Crystals. <i>Bulletin of the Korean Chemical Society</i> , 2013 , 34, 2973-2977	1.2	8
31	Using liquid crystals for the real-time detection of urease at aqueous/liquid crystal interfaces. <i>Journal of Materials Science</i> , 2012 , 47, 969-975	4.3	21
30	A new strategy for imaging biomolecular events through interactions between liquid crystals and oil-in-water emulsions. <i>Analyst, The</i> , 2012 , 137, 5204-7	5	16
29	Using liquid crystals for the label-free detection of catalase at aqueous-LC interfaces. <i>Journal of Biotechnology</i> , 2012 , 157, 223-7	3.7	36
28	Using liquid crystals to report molecular interactions between cationic antimicrobial peptides and lipid membranes. <i>Analyst, The</i> , 2012 , 137, 567-70	5	47
27	Imaging trypsin activity through changes in the orientation of liquid crystals coupled to the interactions between a polyelectrolyte and a phospholipid layer. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 1791-5	9.5	56
26	A simple strategy to monitor lipase activity using liquid crystal-based sensors. <i>Talanta</i> , 2012 , 99, 36-9	6.2	29
25	Measuring ligand-receptor binding events on polymeric surfaces with periodic wave patterns using liquid crystals. <i>Colloids and Surfaces B: Biointerfaces</i> , 2012 , 94, 89-94	6	16
24	High-Contrast Imaging of Biomolecular Interactions Using Liquid Crystals Supported on Roller Printed Protein Surfaces. <i>Bulletin of the Korean Chemical Society</i> , 2012 , 33, 3269-3273	1.2	0

23	Liquid crystal-based sensors for the detection of heavy metals using surface-immobilized urease. <i>Colloids and Surfaces B: Biointerfaces</i> , 2011 , 88, 622-6	6	63
22	Orientalional behaviour of ultraviolet-tailored 4-cyano-4'-pentylbiphenyl at the aqueous/liquid crystal interface. <i>Liquid Crystals</i> , 2011 , 38, 1209-1216	2.3	16
21	Imaging the Enzymatic Reaction of Urease Using Liquid Crystal-Based pH Sensor. <i>Bulletin of the Korean Chemical Society</i> , 2011 , 32, 4377-4381	1.2	12
20	Using liquid crystals to detect DNA hybridization on polymeric surfaces with continuous wavy features. <i>Nanotechnology</i> , 2010 , 21, 425502	3.4	25
19	Effective Parameters for the Precise Control of Thin Film Buckling on Elastomeric Substrates. <i>Bulletin of the Korean Chemical Society</i> , 2010 , 31, 419-422	1.2	9
18	Coexistence of Closely Packed $c(4\sqrt{2})$ and Striped Phases in Self-Assembled Monolayers of Decylthiocyanates on Au(111). <i>Bulletin of the Korean Chemical Society</i> , 2010 , 31, 901-904	1.2	3
17	Liquid Crystal-based Imaging of Biomolecular Interactions at Roller Printed Protein Surfaces. <i>Bulletin of the Korean Chemical Society</i> , 2010 , 31, 1223-1227	1.2	6
16	Liquid Crystal-based Imaging of Enzymatic Reactions at Aqueous-liquid Crystal Interfaces Decorated with Oligopeptide Amphiphiles. <i>Bulletin of the Korean Chemical Society</i> , 2010 , 31, 1262-1266	1.2	12
15	Nanoscale patterning of ionic self-assembled multilayers. <i>Nanotechnology</i> , 2009 , 20, 155301	3.4	5
14	Molecular-scale investigation of structural changes in cyclohexanethiol self-assembled monolayers on Au(111). <i>Journal of Nanoscience and Nanotechnology</i> , 2009 , 9, 7085-9	1.3	3
13	Influence of passivation with non-charged fluorinated ethylene propylene on the properties of pentacene organic thin film transistor. <i>Organic Electronics</i> , 2008 , 9, 899-902	3.5	6
12	Patterning polyelectrolyte multilayers by AFM nanolithography. <i>Macromolecular Research</i> , 2007 , 15, 263-266	1.9	1
11	Damage-free electrodes fabrication for top emitting organic light emitting diodes by transfer fabrication. <i>Applied Physics Letters</i> , 2007 , 91, 192505	3.4	6
10	Characterization of protein immobilization at silver surfaces by near edge X-ray absorption fine structure spectroscopy. <i>Langmuir</i> , 2006 , 22, 7719-25	4	37
9	Anchoring of nematic liquid crystals on viruses with different envelope structures. <i>Nano Letters</i> , 2006 , 6, 1053-8	11.5	89
8	Influence of 4-cyano-4'-biphenylcarboxylic acid on the orientational ordering of cyanobiphenyl liquid crystals at chemically functionalized surfaces. <i>Journal of Colloid and Interface Science</i> , 2006 , 304, 459-73	9.3	22
7	Using liquid crystals to report membrane proteins captured by affinity microcontact printing from cell lysates and membrane extracts. <i>Journal of the American Chemical Society</i> , 2005 , 127, 8912-3	16.4	66
6	Influence of Lyotropic Liquid Crystals on the Ability of Antibodies To Bind to Surface-Immobilized Antigens. <i>Chemistry of Materials</i> , 2005 , 17, 4774-4782	9.6	33

5	A Strategy for the Sequential Patterning of Proteins:□Catalytically Active Multiprotein Nanofabrication. <i>Nano Letters</i> , 2003 , 3, 691-694	11.5	31
4	Immobilized enzymes as catalytically-active tools for nanofabrication. <i>Journal of the American Chemical Society</i> , 2002 , 124, 12114-5	16.4	38
3	Detection of anti-SARS-CoV-2 antibody for the diagnosis of past-COVID-19 infection cases using a liquid-crystal-based immunosensor. <i>Liquid Crystals</i> ,1-12	2.3	0
2	Highly sensitive label-free liquid crystal-based aptasensor to detect alpha-fetoprotein. <i>Liquid Crystals</i> ,1-10	2.3	0
1	Sensitive detection of di-(2-ethylhexyl) phthalate using a liquid crystal-based aptasensor. <i>Liquid Crystals</i> ,1-10	2.3	