

Chang-Hyun Jang

List of Publications by Citations

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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 | Anchoring of nematic liquid crystals on viruses with different envelope structures. <i>Nano Letters</i> , 2006 , 6, 1053-8 | 11.5 | 89 |
| 93 | 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 |
| 92 | 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 |
| 91 | 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 |
| 90 | Using liquid crystals to report molecular interactions between cationic antimicrobial peptides and lipid membranes. <i>Analyst, The</i> , 2012 , 137, 567-70 | 5 | 47 |
| 89 | 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 |
| 88 | 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 |
| 87 | 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 |
| 86 | Immobilized enzymes as catalytically-active tools for nanofabrication. <i>Journal of the American Chemical Society</i> , 2002 , 124, 12114-5 | 16.4 | 38 |
| 85 | 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 |
| 84 | Liquid crystal-based aptasensor for the detection of interferon- β 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 |
| 83 | 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 |
| 82 | 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 |
| 81 | 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 |
| 80 | 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 |
| 79 | A Strategy for the Sequential Patterning of Proteins: Catalytically Active Multiprotein Nanofabrication. <i>Nano Letters</i> , 2003 , 3, 691-694 | 11.5 | 31 |
| 78 | A simple strategy to monitor lipase activity using liquid crystal-based sensors. <i>Talanta</i> , 2012 , 99, 36-9 | 6.2 | 29 |

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| 77 | Label-free optical detection of thrombin using a liquid crystal-based aptasensor. <i>Microchemical Journal</i> , 2018 , 141, 71-79 | 4.8 | 27 |
| 76 | Using liquid crystals to detect DNA hybridization on polymeric surfaces with continuous wavy features. <i>Nanotechnology</i> , 2010 , 21, 425502 | 3.4 | 25 |
| 75 | 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 |
| 74 | 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 |
| 73 | 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 |
| 72 | 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 |
| 71 | 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 |
| 70 | 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 |
| 69 | 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 |
| 68 | Liquid-Crystal-Based Immunosensor for Diagnosis of Tuberculosis in Clinical Specimens. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 21209-21215 | 9.5 | 18 |
| 67 | Orientational 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 |
| 66 | 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 |
| 65 | Nematic liquid crystals confined in microcapillaries for imaging phenomena at liquid-liquid interfaces. <i>Soft Matter</i> , 2015 , 11, 6999-7004 | 3.6 | 16 |
| 64 | Sensitive and label-free liquid crystal-based optical sensor for the detection of malathion. <i>Analytical Biochemistry</i> , 2020 , 593, 113589 | 3.1 | 16 |
| 63 | 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 |
| 62 | 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 |
| 61 | Orientational 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 |
| 60 | Liquid crystal-based aptamer sensor for sensitive detection of bisphenol A. <i>Microchemical Journal</i> , 2019 , 146, 1064-1071 | 4.8 | 15 |

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| 59 | 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 |
| 58 | 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 |
| 57 | 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 |
| 56 | 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 |
| 55 | Diagnosis of tuberculosis using a liquid crystal-based optical sensor. <i>Macromolecular Research</i> , 2016 , 24, 123-130 | 1.9 | 12 |
| 54 | 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 |
| 53 | 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 |
| 52 | 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 |
| 51 | Label-free optical detection of aflatoxin by using a liquid crystal-based immunosensor. <i>Microchemical Journal</i> , 2018 , 142, 335-342 | 4.8 | 9 |
| 50 | 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 |
| 49 | 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 |
| 48 | 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 |
| 47 | 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 |
| 46 | 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 |
| 45 | 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 |
| 44 | Real-space observation of internal ordering configurations of sessile liquid crystal micro-droplets. <i>Liquid Crystals</i> , 2016 , 43, 1293-1298 | 2.3 | 8 |
| 43 | 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 |
| 42 | 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 |

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| 41 | 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 |
| 40 | 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 |
| 39 | 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 |
| 38 | Micro-capillary sensor for imaging trypsin activity using confined nematic liquid crystals. <i>Journal of Molecular Liquids</i> , 2016 , 222, 596-600 | 6 | 6 |
| 37 | Imaging catalase reactions through interactions between liquid crystals and oil-in-water emulsions. <i>Liquid Crystals</i> , 2014 , 41, 163-168 | 2.3 | 6 |
| 36 | Dynamic imaging of enzymatic events at polyelectrolyte-disrupted phospholipid membranes using liquid crystals. <i>Liquid Crystals</i> , 2013 , 40, 106-111 | 2.3 | 6 |
| 35 | 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 |
| 34 | 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 |
| 33 | 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 |
| 32 | 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 |
| 31 | 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 |
| 30 | Label-free sensitive detection of MUC1 using a liquid crystal based-system. <i>Liquid Crystals</i> , 2020 , 47, 1784-1793 | 3.4 | 6 |
| 29 | Nanoscale patterning of ionic self-assembled multilayers. <i>Nanotechnology</i> , 2009 , 20, 155301 | 3.4 | 5 |
| 28 | 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 |
| 27 | 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 |
| 26 | 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 |
| 25 | Fabrication of Liquid Crystal Droplet Patterns for Monitoring Aldehyde Vapors. <i>ChemPlusChem</i> , 2019 , 84, 1554-1559 | 2.8 | 4 |
| 24 | Nanoparticle-assisted optical sensor for clinical diagnosis of tuberculosis. <i>Microchemical Journal</i> , 2019 , 147, 941-947 | 4.8 | 4 |

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| 23 | Detection of catalase activity with aldehyde-doped liquid crystals confined in microcapillaries. <i>Analytical Biochemistry</i> , 2018 , 560, 19-23 | 3.1 | 4 |
| 22 | 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 |
| 21 | 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 |
| 20 | 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 |
| 19 | 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 |
| 18 | Coexistence of Closely Packed $c(4 \times 2)$ 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 | 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 |
| 16 | Simple, sensitive technique for α -amylase detection facilitated by liquid crystal-based microcapillary sensors. <i>Microchemical Journal</i> , 2021 , 162, 105864 | 4.8 | 3 |
| 15 | 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 |
| 14 | 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 |
| 13 | 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 |
| 12 | pH-Driven adsorption and desorption of fatty acid at the liquid crystal/water interface. <i>Liquid Crystals</i> , 2015 , 1-8 | 2.3 | 2 |
| 11 | Patterning polyelectrolyte multilayers by AFM nanolithography. <i>Macromolecular Research</i> , 2007 , 15, 263-266 | 1.9 | 1 |
| 10 | 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 |
| 9 | Ultrasensitive colorimetric detection of amoxicillin based on Tris-HCl-induced aggregation of gold nanoparticles. <i>Analytical Biochemistry</i> , 2022 , 114634 | 3.1 | 1 |
| 8 | 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 |
| 7 | 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 |
| 6 | 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 |

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| 5 | Liquid crystal-based aptasensor to detect ractopamine hydrochloride at a femtomolar level. <i>Microchemical Journal</i> , 2021 , 106861 | 4.8 | o |
| 4 | Highly sensitive label-free liquid crystal-based aptasensor to detect alpha-fetoprotein. <i>Liquid Crystals</i> , 1-10 | 2.3 | o |
| 3 | 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 | o |
| 2 | 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 | |
| 1 | Sensitive detection of di-(2-ethylhexyl) phthalate using a liquid crystal-based aptasensor. <i>Liquid Crystals</i> , 1-10 | 2.3 | |