

Chenghui Liu

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1616910/publications.pdf>

Version: 2024-02-01

108
papers

4,436
citations

101384

36
h-index

110170

64
g-index

111
all docs

111
docs citations

111
times ranked

4688
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrasensitive Detection of microRNAs by Exponential Isothermal Amplification. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 5498-5501.	7.2	452
2	Monodisperse, size-tunable and highly efficient $\text{NaYF}_4:\text{Yb},\text{Er}(\text{Tm})$ up-conversion luminescent nanospheres: controllable synthesis and their surface modifications. <i>Journal of Materials Chemistry</i> , 2009, 19, 3546.	6.7	221
3	Graphene Surface-Anchored Fluorescence Sensor for Sensitive Detection of MicroRNA Coupled with Enzyme-Free Signal Amplification of Hybridization Chain Reaction. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 6450-6453.	4.0	202
4	Efficient fluorescence resonance energy transfer between upconversion nanophosphors and graphene oxide: a highly sensitive biosensing platform. <i>Chemical Communications</i> , 2011, 47, 4661.	2.2	194
5	Selective determination of cysteine by resonance light scattering technique based on self-assembly of gold nanoparticles. <i>Analytical Biochemistry</i> , 2006, 351, 18-25.	1.1	165
6	One-Step Homogeneous Detection of DNA Hybridization with Gold Nanoparticle Probes by Using a Linear Light-Scattering Technique. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 8022-8025.	7.2	163
7	Morphology- and phase-controlled synthesis of monodisperse lanthanide-doped NaGdF_4 nanocrystals with multicolor photoluminescence. <i>Journal of Materials Chemistry</i> , 2009, 19, 489-496.	6.7	156
8	Silver Nanoparticle-Based Ultrasensitive Chemiluminescent Detection of DNA Hybridization and Single-Nucleotide Polymorphisms. <i>Analytical Chemistry</i> , 2006, 78, 3738-3744.	3.2	119
9	Controlled synthesis of hexagon shaped lanthanide-doped LaF_3 nanoplates with multicolor upconversion fluorescence. <i>Journal of Materials Chemistry</i> , 2007, 17, 3875.	6.7	114
10	Rolling circle extension-actuated loop-mediated isothermal amplification (RCA-LAMP) for ultrasensitive detection of microRNAs. <i>Biosensors and Bioelectronics</i> , 2019, 128, 17-22.	5.3	98
11	Precise Quantitation of MicroRNA in a Single Cell with Droplet Digital PCR Based on Ligation Reaction. <i>Analytical Chemistry</i> , 2016, 88, 11384-11389.	3.2	90
12	New CRISPR-Derived microRNA Sensing Mechanism Based on Cas12a Self-Powered and Rolling Circle Transcription-Unleashed Real-Time crRNA Recruiting. <i>Analytical Chemistry</i> , 2020, 92, 6702-6708.	3.2	88
13	Highly Sensitive and Specific Multiplexed MicroRNA Quantification Using Size-Coded Ligation Chain Reaction. <i>Analytical Chemistry</i> , 2014, 86, 1076-1082.	3.2	81
14	The Effects of Cold Plasma-Activated Water Treatment on the Microbial Growth and Antioxidant Properties of Fresh-Cut Pears. <i>Food and Bioprocess Technology</i> , 2019, 12, 1842-1851.	2.6	78
15	Dual-Readout Fluorescent Assay of Protein Kinase Activity by Use of TiO_2 -Coated Magnetic Microspheres. <i>Analytical Chemistry</i> , 2013, 85, 4813-4821.	3.2	74
16	Development of chemiluminescence detection of gold nanoparticles in biological conjugates for immunoassay. <i>Analytica Chimica Acta</i> , 2005, 551, 85-91.	2.6	67
17	Lab on a single microbead: an ultrasensitive detection strategy enabling microRNA analysis at the single-molecule level. <i>Chemical Science</i> , 2015, 6, 6213-6218.	3.7	66
18	One-step detection of microRNA with high sensitivity and specificity via target-triggered loop-mediated isothermal amplification (TT-LAMP). <i>Chemical Communications</i> , 2017, 53, 11040-11043.	2.2	66

#	ARTICLE	IF	CITATIONS
19	Simple and sensitive detection of microRNAs with ligase chain reaction. <i>Chemical Communications</i> , 2010, 46, 2432.	2.2	65
20	A novel restriction endonuclease Glal for rapid and highly sensitive detection of DNA methylation coupled with isothermal exponential amplification reaction. <i>Chemical Science</i> , 2018, 9, 1344-1351.	3.7	65
21	Upconversion Nanophosphor: An Efficient Phosphopeptides-Recognizing Matrix and Luminescence Resonance Energy Transfer Donor for Robust Detection of Protein Kinase Activity. <i>Analytical Chemistry</i> , 2014, 86, 6095-6102.	3.2	64
22	Identification of a selective DNA ligase for accurate recognition and ultrasensitive quantification of <i>N⁶</i> -methyladenosine in RNA at one-nucleotide resolution. <i>Chemical Science</i> , 2018, 9, 3354-3359.	3.7	59
23	Ultrasensitive detection of telomerase activity in a single cell using stem-loop primer-mediated exponential amplification (SPEA) with near zero nonspecific signal. <i>Chemical Science</i> , 2016, 7, 4945-4950.	3.7	56
24	Boosting Luminescence Energy Transfer Efficiency in Upconversion Nanoparticles with an Energy-Concentrating Zone. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 12117-12122.	7.2	56
25	A chemiluminescent metalloimmunoassay based on silver deposition on colloidal gold labels. <i>Analytical Biochemistry</i> , 2006, 359, 247-252.	1.1	55
26	Highly sensitive detection of CpG methylation in genomic DNA by AuNP-based colorimetric assay with ligase chain reaction. <i>Chemical Communications</i> , 2015, 51, 3371-3374.	2.2	54
27	A cytometric bead assay for sensitive DNA detection based on enzyme-free signal amplification of hybridization chain reaction. <i>Biosensors and Bioelectronics</i> , 2013, 49, 380-386.	5.3	53
28	Effect of atmospheric cold plasma treatment on antioxidant activities and reactive oxygen species production in postharvest blueberries during storage. <i>Journal of the Science of Food and Agriculture</i> , 2020, 100, 5586-5595.	1.7	52
29	Self-aggregation of oligonucleotide-functionalized gold nanoparticles and its applications for highly sensitive detection of DNA. <i>Chemical Communications</i> , 2010, 46, 5548.	2.2	48
30	NIR-Mediated Nanohybrids of Upconversion Nanophosphors and Fluorescent Conjugated Polymers for High-Efficiency Antibacterial Performance Based on Fluorescence Resonance Energy Transfer. <i>Advanced Healthcare Materials</i> , 2016, 5, 2967-2971.	3.9	45
31	Rare Earth Ion Mediated Fluorescence Accumulation on a Single Microbead: An Ultrasensitive Strategy for the Detection of Protein Kinase Activity at the Single-Cell Level. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 15186-15190.	7.2	43
32	Fluorescent water-soluble probes based on dendritic PEG substituted perylene bisimides: synthesis, photophysical properties, and live cell images. <i>Journal of Materials Chemistry</i> , 2012, 22, 6176.	6.7	42
33	Surface modification of hydrophobic NaYF ₄ :Yb,Er upconversion nanophosphors and their applications for immunoassay. <i>Science China Chemistry</i> , 2011, 54, 1292-1297.	4.2	39
34	Phosphorylation-induced hybridization chain reaction on beads: an ultrasensitive flow cytometric assay for the detection of T4 polynucleotide kinase activity. <i>Chemical Communications</i> , 2015, 51, 5832-5835.	2.2	38
35	A hyperbranched transcription-activated CRISPR-Cas12a signal amplification strategy for sensitive microRNA sensing. <i>Chemical Communications</i> , 2020, 56, 13445-13448.	2.2	38
36	One-pot synthesis of water-soluble and carboxyl-functionalized $\text{NaYF}_4\text{:Yb,Er(Tm)}$ upconversion nanocrystals and their application for bioimaging. <i>Journal of Materials Chemistry</i> , 2012, 22, 12186.	6.7	36

#	ARTICLE	IF	CITATIONS
37	A versatile platform for highly sensitive detection of kinase activity based on metal ion-mediated FRET using an anionic conjugated polymer. <i>Chemical Communications</i> , 2013, 49, 3887.	2.2	36
38	Flow Cytometry-Assisted Mix-and-Read Assay for Ultrasensitive Detection of Protein Kinase Activity by use of Zr ⁴⁺ -Functionalized Mesoporous SiO ₂ Microspheres. <i>Analytical Chemistry</i> , 2013, 85, 10956-10961.	3.2	35
39	An ultrasensitive flow cytometric immunoassay based on bead surface-initiated template-free DNA extension. <i>Chemical Science</i> , 2018, 9, 6605-6613.	3.7	34
40	A Versatile Photoinduced Electron Transfer-Based Upconversion Fluorescent Biosensing Platform for the Detection of Disease Biomarkers and Nerve Agent. <i>Advanced Functional Materials</i> , 2019, 29, 1903191.	7.8	34
41	Multiplex ligation-dependent probe amplification (MLPA) for ultrasensitive multiplexed microRNA detection using ribonucleotide-modified DNA probes. <i>Chemical Communications</i> , 2013, 49, 10013.	2.2	32
42	A three-way junction structure-based isothermal exponential amplification strategy for sensitive detection of 3'-terminal 2'-O-methylated plant microRNA. <i>Chemical Communications</i> , 2017, 53, 1124-1127.	2.2	32
43	Real-time fluorescence ligase chain reaction for sensitive detection of single nucleotide polymorphism based on fluorescence resonance energy transfer. <i>Biosensors and Bioelectronics</i> , 2015, 74, 705-710.	5.3	31
44	Detection of T4 polynucleotide kinase activity based on cationic conjugated polymer-mediated fluorescence resonance energy transfer. <i>Biosensors and Bioelectronics</i> , 2015, 66, 316-320.	5.3	30
45	Highly sensitive and multiplexed analysis of CpG methylation at single-base resolution with ligation-based exponential amplification. <i>Chemical Science</i> , 2015, 6, 1866-1872.	3.7	26
46	Portable and sensitive detection of protein kinase activity by using commercial personal glucose meter. <i>Sensors and Actuators B: Chemical</i> , 2015, 210, 508-512.	4.0	26
47	Chemiluminescent detection of DNA hybridization using gold nanoparticles as labels. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 387, 613-618.	1.9	25
48	An Enzyme-Free MicroRNA Assay Based On Fluorescence Counting of Click Chemical Ligation-Illuminated Magnetic Nanoparticles with Total Internal Reflection Fluorescence Microscopy. <i>ACS Sensors</i> , 2018, 3, 2667-2674.	4.0	25
49	Amplification-Free and Mix-and-Read Analysis of Multiplexed MicroRNAs on a Single Plasmonic Microbead. <i>Nano Letters</i> , 2021, 21, 6718-6724.	4.5	25
50	Click Chemistry-Actuated Digital DNA Walker Confined on a Single Particle toward Absolute MicroRNA Quantification. <i>Analytical Chemistry</i> , 2021, 93, 1620-1626.	3.2	25
51	Size and morphology controllable synthesis of oil-dispersible LaF ₃ :Yb,Er upconversion fluorescent nanocrystals via a solid-liquid two-phase approach. <i>Scripta Materialia</i> , 2008, 58, 89-92.	2.6	24
52	An enzyme-free signal amplification strategy for sensitive detection of microRNA via catalyzed hairpin assembly. <i>Analytical Methods</i> , 2014, 6, 9477-9482.	1.3	24
53	A versatile size-coded flow cytometric bead assay for simultaneous detection of multiple microRNAs coupled with a two-step cascading signal amplification. <i>Chemical Communications</i> , 2017, 53, 2926-2929.	2.2	24
54	miRNA and Degradome Sequencing Identify miRNAs and Their Target Genes Involved in the Browning Inhibition of Fresh-Cut Apples by Hydrogen Sulfide. <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 8462-8470.	2.4	23

#	ARTICLE	IF	CITATIONS
55	Phosphorylation-regulated crosslinking of gold nanoparticles: a new strategy for colorimetric detection of protein kinase activity. <i>Analyst, The</i> , 2015, 140, 5685-5691.	1.7	22
56	Click Chemical Ligation-Initiated On-Bead DNA Polymerization for the Sensitive Flow Cytometric Detection of 3'-Terminal 2'-O-Methylated Plant MicroRNA. <i>Analytical Chemistry</i> , 2018, 90, 5390-5397.	3.2	20
57	Robust detection of tyrosine phosphatase activity by coupling chymotrypsin-assisted selective peptide cleavage and a graphene oxide-based fluorescent platform. <i>Chemical Communications</i> , 2014, 50, 8161.	2.2	19
58	Boosting Luminance Energy Transfer Efficiency in Upconversion Nanoparticles with an Energy-Concentrating Zone. <i>Angewandte Chemie</i> , 2019, 131, 12245-12250.	1.6	19
59	Plasmon-Enhanced Surface-Enhanced Raman Scattering Mapping Concentrated on a Single Bead for Ultrasensitive and Multiplexed Immunoassay. <i>Analytical Chemistry</i> , 2020, 92, 12387-12393.	3.2	19
60	Microchamber-Free Digital Flow Cytometric Analysis of T4 Polynucleotide Kinase Phosphatase Based on Single-Enzyme-to-Single-Bead Space-Confined Reaction. <i>Analytical Chemistry</i> , 2021, 93, 14828-14836.	3.2	19
61	CE immunoassay with enhanced chemiluminescence detection of erythropoietin using silica dioxide nanoparticles as pseudostationary phase. <i>Electrophoresis</i> , 2009, 30, 3092-3098.	1.3	18
62	An enzyme-free flow cytometric bead assay for the sensitive detection of microRNAs based on click nucleic acid ligation-mediated signal amplification. <i>Analyst, The</i> , 2017, 142, 2967-2973.	1.7	18
63	A Clamp-Based One-Step Droplet Digital Reverse Transcription PCR (ddRT-PCR) for Precise Quantitation of Messenger RNA Mutation in Single Cells. <i>ACS Sensors</i> , 2018, 3, 1795-1801.	4.0	18
64	Effects of Ozonated Water on Microbial Growth, Quality Retention and Pesticide Residue Removal of Fresh-cut Onions. <i>Ozone: Science and Engineering</i> , 2020, 42, 399-407.	1.4	18
65	Digital quantitative analysis of microRNA in single cell based on ligation-depended polymerase colony (Polony). <i>Biosensors and Bioelectronics</i> , 2017, 95, 146-151.	5.3	17
66	Effects of hydrogen sulfide on the surface whitening and physiological responses of fresh-cut carrots. <i>Journal of the Science of Food and Agriculture</i> , 2018, 98, 4726-4732.	1.7	17
67	Sensitive detection of uracil-DNA glycosylase (UDG) activity based on terminal deoxynucleotidyl transferase-assisted formation of fluorescent copper nanoclusters (CuNCs). <i>Talanta</i> , 2019, 195, 320-326.	2.9	16
68	A versatile fluorescence turn-on assay for highly sensitive detection of tyrosine phosphatase activity. <i>Chemical Communications</i> , 2014, 50, 13983-13986.	2.2	14
69	Light-Triggered Disruption of PAG-Based Amphiphilic Random Copolymer Micelles. <i>Langmuir</i> , 2015, 31, 7758-7763.	1.6	14
70	Solvent-assisted selective synthesis of NaLaF ₄ and LaF ₃ fluorescent nanocrystals via a facile solvothermal approach. <i>Journal of Alloys and Compounds</i> , 2011, 509, 1964-1968.	2.8	12
71	Highly sensitive detection of protein kinase activity using upconversion luminescent nanoparticles. <i>RSC Advances</i> , 2014, 4, 14546.	1.7	12
72	A general and versatile fluorescence turn-on assay for detecting the activity of protein tyrosine kinases based on phosphorylation-inhibited tyrosyl oxidation. <i>Chemical Communications</i> , 2016, 52, 12570-12573.	2.2	12

#	ARTICLE	IF	CITATIONS
73	An emulsion-free digital flow cytometric platform for the precise quantification of microRNA based on single molecule extension-illuminated microbeads (dFlowSeim). <i>Chemical Communications</i> , 2020, 56, 7179-7182.	2.2	12
74	Programming the <i>trans</i> -cleavage Activity of CRISPR-Cas13a by Single-Strand DNA Blocker and Its Biosensing Application. <i>Analytical Chemistry</i> , 2022, 94, 3987-3996.	3.2	11
75	Copper ion-induced fluorescence band shift of CdTe quantum dots: a highly specific strategy for visual detection of Cu ²⁺ with a portable UV lamp. <i>Analyst</i> , 2015, 140, 7859-7863.	1.7	10
76	Recent advances in exosome analysis assisted by functional nucleic acid-based signal amplification technologies. <i>TrAC - Trends in Analytical Chemistry</i> , 2022, 149, 116549.	5.8	10
77	Enzyme-free and multiplexed microRNA detection using microRNA-initiated DNA molecular motor. <i>Science China Chemistry</i> , 2016, 59, 83-88.	4.2	9
78	Label-free detection of histone based on cationic conjugated polymer-mediated fluorescence resonance energy transfer. <i>Talanta</i> , 2018, 180, 150-155.	2.9	9
79	A Versatile Dynamic Light Scattering Strategy for the Sensitive Detection of Plant MicroRNAs Based on Click Chemistry-Amplified Aggregation of Gold Nanoparticles. <i>Chemistry - A European Journal</i> , 2019, 25, 1701-1705.	1.7	9
80	Highly specific quantification of mRNA mutation in single cells based on RNase H cleavage-assisted reverse transcription (RT)-PCR. <i>Chinese Chemical Letters</i> , 2020, 31, 1095-1098.	4.8	8
81	Nucleic Acid Substrate-Independent DNA Polymerization on the Exosome Membrane: A Mechanism Study and Application in Exosome Analysis. <i>Analytical Chemistry</i> , 2022, 94, 2172-2179.	3.2	8
82	Ultrasensitive genotyping with target-specifically generated circular DNA templates and RNA FRET probes. <i>Chemical Communications</i> , 2015, 51, 11556-11559.	2.2	7
83	High-sensitive sensing of plant microRNA by integrating click chemistry with an unusual on-bead poly(T)-promoted transcription amplification. <i>Analytica Chimica Acta</i> , 2020, 1111, 16-22.	2.6	7
84	Integrated Single Microbead-Arrayed μ -Fluidic Platform for the Automated Detection of Multiplexed Biomarkers. <i>ACS Sensors</i> , 2020, 5, 798-806.	4.0	7
85	Facile Clamp-Assisted Ligation Strategy for Direct Discrimination and Background-Free Quantification of Site-Specific 5-Formylcytosine. <i>Analytical Chemistry</i> , 2020, 92, 3477-3482.	3.2	7
86	Colorimetric and fluorometric dual-readout protein kinase assay by tuning the active surface of nanoceria. <i>Chemical Communications</i> , 2021, 57, 8154-8157.	2.2	7
87	Target Extension-Activated DNA Walker on Nanoparticles for Digital Counting-Based Analysis of MicroRNA. <i>Chinese Journal of Chemistry</i> , 2021, 39, 1471-1476.	2.6	7
88	One bead three targets: An enzyme-free platform enabling simultaneous detection of multiplex MicroRNAs on a single microbead. <i>Sensors and Actuators B: Chemical</i> , 2019, 301, 127119.	4.0	6
89	Specific detection of RNA mutation at single-base resolution by coupling the isothermal exponential amplification reaction (EXPAR) with chimeric DNA probe-aided precise RNA disconnection at the mutation site. <i>Chemical Communications</i> , 2019, 55, 6934-6937.	2.2	6
90	A terminal extension-actuated isothermal exponential amplification strategy toward the ultrasensitive and versatile detection of enzyme activity in a single cell. <i>Talanta</i> , 2020, 211, 120704.	2.9	6

#	ARTICLE	IF	CITATIONS
91	Double Strand-Specific Nuclease-Assisted Sensitive Detection of MicroRNA. <i>Acta Chimica Sinica</i> , 2014, 72, 395.	0.5	6
92	All on size-coded single bead set: a modular enrich-amplify-amplify strategy for attomolar level multi-immunoassay. <i>Chemical Science</i> , 2022, 13, 3501-3506.	3.7	6
93	The Garbage Enzyme with Chinese Hoenylocust Fruits Showed Better Properties and Application than When Using the Garbage Enzyme Alone. <i>Foods</i> , 2021, 10, 2656.	1.9	5
94	Single Microbead-anchored Fluorescent Immunoassay (SMFIA): A Facile and Versatile Platform Allowing Simultaneous Detection of Multiple Antigens. <i>Chemistry - an Asian Journal</i> , 2017, 12, 2894-2898.	1.7	4
95	Chemically Enhanced Live Probiotic for In Vivo Tumor Targeting and Inhibition. <i>ACS Applied Polymer Materials</i> , 2022, 4, 1368-1376.	2.0	4
96	Sensitive detection of hexokinase activity by use of Zr ⁴⁺ -coated magnetic beads coupled with phenylboronic acid-functionalized upconversion nanophosphors. <i>Analyst, The</i> , 2014, 139, 5582-5586.	1.7	3
97	Target-Regulated Ce ³⁺ /Ce ⁴⁺ Redox Switch for Fluorescence Turn-on Detection of H ₂ O ₂ and Glucose. <i>ChemistrySelect</i> , 2017, 2, 9181-9185.	0.7	3
98	Trends of Bead Counting-Based Technologies Toward the Detection of Disease-Related Biomarkers. <i>Frontiers in Chemistry</i> , 2020, 8, 600317.	1.8	3
99	Nanoparticle Tracking Analysis-Based <i>In Vitro</i> Detection of Critical Biomarkers. <i>ACS Applied Nano Materials</i> , 2020, 3, 2881-2888.	2.4	3
100	Precise quantification of N1-Methyladenosine with a site-specific RNase H cleavage-assisted isothermal amplification strategy. <i>Sensors and Actuators B: Chemical</i> , 2022, 354, 131200.	4.0	2
101	Multifunctional fluorescent probe for effective visualization, inhibition, and detoxification of β -amyloid aggregation <i>via</i> covalent binding. <i>Chemical Communications</i> , 2022, 58, 3957-3960.	2.2	2
102	Detection of reverse transcription-PCR products by a simple and rapid light scattering technique. <i>Analyst, The</i> , 2011, 136, 4467.	1.7	1
103	A Versatile Dual-emission Fluorescent Microhybrid Enabling Visual Detection of Glucose and Other Oxidases-based Biocatalytic Systems. <i>Advanced Materials Technologies</i> , 2016, 1, .	3.0	1
104	One-step detection of T4 polynucleotide kinase activity based on single particle-confined enzyme reaction and digital particle counting. <i>Chinese Chemical Letters</i> , 2023, 34, 107673.	4.8	1
105	Biosensors: A Versatile Dual-emission Fluorescent Microhybrid Enabling Visual Detection of Glucose and Other Oxidases-based Biocatalytic Systems (<i>Adv. Mater. Technol.</i> 2/2016). <i>Advanced Materials Technologies</i> , 2016, 1, .	3.0	0
106	A General Fluorescence Turn-on Sulfotransferase Assay through the Detection of Free Phosphate Ions by Using A Calcein/Ce ³⁺ System. <i>ChemistrySelect</i> , 2018, 3, 9753-9758.	0.7	0
107	On-bead enzyme-catalyzed signal amplification for the high-sensitive detection of disease biomarkers. <i>Methods in Enzymology</i> , 2020, 630, 179-197.	0.4	0
108	Quantification of Site-Specific 5-Formylcytosine by Integrating Peptide Nucleic Acid-Clamped Ligation with Loop-Mediated Isothermal Amplification. <i>Springer Protocols</i> , 2022, , 77-91.	0.1	0