

# Quan Cheng

## List of Publications by Year in descending order

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77  
papers

3,330  
citations

126907

33  
h-index

149698

56  
g-index

79  
all docs

79  
docs citations

79  
times ranked

4350  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly Stable Silver Nanoplates for Surface Plasmon Resonance Biosensing. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 5629-5633.	13.8	313
2	New trends in instrumental design for surface plasmon resonance-based biosensors. <i>Biosensors and Bioelectronics</i> , 2011, 26, 1815-1824.	10.1	270
3	Direct quantification of cancerous exosomes via surface plasmon resonance with dual gold nanoparticle-assisted signal amplification. <i>Biosensors and Bioelectronics</i> , 2019, 135, 129-136.	10.1	154
4	Surface Plasmon Resonance: Material and Interface Design for Universal Accessibility. <i>Analytical Chemistry</i> , 2018, 90, 19-39.	6.5	113
5	An enzyme-free surface plasmon resonance biosensor for real-time detecting microRNA based on allosteric effect of mismatched catalytic hairpin assembly. <i>Biosensors and Bioelectronics</i> , 2016, 77, 435-441.	10.1	90
6	Sensitivity comparison of surface plasmon resonance and plasmon-waveguide resonance biosensors. <i>Sensors and Actuators B: Chemical</i> , 2011, 156, 169-175.	7.8	86
7	Nanoscale Classification of Gold Substrates for Surface Plasmon Resonance Analysis of Protein Toxins with Supported Lipid Membranes. <i>Analytical Chemistry</i> , 2006, 78, 596-603.	6.5	85
8	A novel surface plasmon resonance biosensor for enzyme-free and highly sensitive detection of microRNA based on multi component nucleic acid enzyme (MNAzyme)-mediated catalyzed hairpin assembly. <i>Biosensors and Bioelectronics</i> , 2016, 80, 98-104.	10.1	79
9	Regenerable Tethered Bilayer Lipid Membrane Arrays for Multiplexed Label-Free Analysis of Lipid-Protein Interactions on Poly(dimethylsiloxane) Microchips Using SPR Imaging. <i>Analytical Chemistry</i> , 2009, 81, 1146-1153.	6.5	78
10	An enzyme-free surface plasmon resonance biosensing strategy for detection of DNA and small molecule based on nonlinear hybridization chain reaction. <i>Biosensors and Bioelectronics</i> , 2017, 87, 345-351.	10.1	77
11	Efficient label-free chemiluminescent immunosensor based on dual functional cupric oxide nanorods as peroxidase mimics. <i>Biosensors and Bioelectronics</i> , 2018, 100, 304-311.	10.1	77
12	Detection of Membrane-Binding Proteins by Surface Plasmon Resonance with an All-Aqueous Amplification Scheme. <i>Analytical Chemistry</i> , 2012, 84, 3179-3186.	6.5	76
13	Surface plasmon resonance biosensor for highly sensitive detection of microRNA based on DNA super-sandwich assemblies and streptavidin signal amplification. <i>Analytica Chimica Acta</i> , 2015, 874, 59-65.	5.4	73
14	Interface design and multiplexed analysis with surface plasmon resonance (SPR) spectroscopy and SPR imaging. <i>The Analyst</i> , 2010, 135, 2759.	3.5	67
15	Analysis of $\hat{1}/4$ -Contact Printed Protein Patterns by SPR Imaging with a LED Light Source. <i>Langmuir</i> , 2004, 20, 11141-11148.	3.5	64
16	Microgravimetric immunosensor for direct detection of aerosolized influenza A virus particles. <i>Sensors and Actuators B: Chemical</i> , 2007, 126, 691-699.	7.8	64
17	Dual-Mode Optical Sensing of Organic Vapors and Proteins with Polydiacetylene (PDA)-Embedded Electrospun Nanofibers. <i>Langmuir</i> , 2014, 30, 9616-9622.	3.5	63
18	High-sensitive and multiplex biosensing assay of NSCLC-derived exosomes via different recognition sites based on SPRi array. <i>Biosensors and Bioelectronics</i> , 2020, 154, 112066.	10.1	63

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19	Highly Sensitive Detection of Protein Toxins by Surface Plasmon Resonance with Biotinylation-Based Inline Atom Transfer Radical Polymerization Amplification. <i>Analytical Chemistry</i> , 2010, 82, 3679-3685.	6.5	57
20	Advances in Optical Sensing and Bioanalysis Enabled by 3D Printing. <i>ACS Sensors</i> , 2018, 3, 2475-2491.	7.8	56
21	Platinum Nanoparticle-decorated Graphene Oxide@Polystyrene Nanospheres for Label-free Electrochemical Immunosensing of Tumor Markers. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 4392-4399.	6.7	55
22	Surface Plasmon Resonance Imaging Analysis of Protein-Receptor Binding in Supported Membrane Arrays on Gold Substrates with Calcinated Silicate Films. <i>Journal of the American Chemical Society</i> , 2006, 128, 9590-9591.	13.7	53
23	Photocatalytically Patterned TiO <sub>2</sub> Arrays for On-Plate Selective Enrichment of Phosphopeptides and Direct MALDI MS Analysis. <i>Analytical Chemistry</i> , 2011, 83, 1624-1631.	6.5	52
24	Protein and Small Molecule Recognition Properties of Deep Cavitands in a Supported Lipid Membrane Determined by Calcination-Enhanced SPR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2010, 132, 10383-10390.	13.7	51
25	Development of a "Membrane Cloaking" Method for Amperometric Enzyme Immunoassay and Surface Plasmon Resonance Analysis of Proteins in Serum Samples. <i>Analytical Chemistry</i> , 2007, 79, 899-907.	6.5	49
26	Desorption and ionization mechanisms and signal enhancement in surface assisted laser desorption ionization mass spectrometry (SALDI-MS). <i>Applied Spectroscopy Reviews</i> , 2020, 55, 220-242.	6.7	49
27	MoS <sub>2</sub> /Ag nanohybrid: A novel matrix with synergistic effect for small molecule drugs analysis by negative-ion matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. <i>Analytica Chimica Acta</i> , 2016, 937, 87-95.	5.4	48
28	Detection of low levels of Escherichia coli in fresh spinach by surface plasmon resonance spectroscopy with a TMB-based enzymatic signal enhancement method. <i>Sensors and Actuators B: Chemical</i> , 2010, 145, 613-619.	7.8	47
29	Plasmonic Sensing with 3D Printed Optics. <i>Analytical Chemistry</i> , 2017, 89, 12626-12630.	6.5	42
30	Ultrathin Calcinated Films on a Gold Surface for Highly Effective Laser Desorption/Ionization of Biomolecules. <i>Analytical Chemistry</i> , 2010, 82, 5088-5094.	6.5	39
31	Patterned Resonance Plasmonic Microarrays for High-Performance SPR Imaging. <i>Analytical Chemistry</i> , 2011, 83, 3147-3152.	6.5	39
32	On-Plate Desalting and SALDI-MS Analysis of Peptides with Hydrophobic Silicate Nanofilms on a Gold Substrate. <i>Analytical Chemistry</i> , 2010, 82, 9211-9220.	6.5	38
33	Calcinated gold nanoparticle arrays for on-chip, multiplexed and matrix-free mass spectrometric analysis of peptides and small molecules. <i>Nanoscale</i> , 2016, 8, 1665-1675.	5.6	37
34	Plasmonic Biosensing with Aluminum Thin Films under the Kretschmann Configuration. <i>Analytical Chemistry</i> , 2020, 92, 8654-8659.	6.5	36
35	Determination of the invA gene of Salmonella using surface plasmon resonance along with streptavidin aptamer amplification. <i>Mikrochimica Acta</i> , 2015, 182, 289-296.	5.0	32
36	FRET Detection of Proteins Using Fluorescently Doped Electrospun Nanofibers and Pattern Recognition. <i>Langmuir</i> , 2011, 27, 6401-6408.	3.5	31

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37	Graphene Oxide Nanoprisms for Sensitive Detection of Environmentally Important Aromatic Compounds with SERS. <i>ACS Sensors</i> , 2017, 2, 817-827.	7.8	30
38	Functional lipid microstructures immobilized on a gold electrode for voltammetric biosensing of cholera toxin. <i>Analyst</i> , The, 2004, 129, 309.	3.5	29
39	Silver decahedral nanoparticles empowered SPR imaging-SELEX for high throughput screening of aptamers with real-time assessment. <i>Biosensors and Bioelectronics</i> , 2018, 109, 206-213.	10.1	29
40	Fabrication and Characterization of a Sialoside-Based Carbohydrate Microarray Biointerface for Protein Binding Analysis with Surface Plasmon Resonance Imaging. <i>ACS Applied Materials &amp; Interfaces</i> , 2009, 1, 1755-1762.	8.0	28
41	Characterizing Stability Properties of Supported Bilayer Membranes on Nanoglassified Substrates Using Surface Plasmon Resonance. <i>Langmuir</i> , 2008, 24, 8127-8133.	3.5	23
42	Fabrication of Fracture-Free Nanoglassified Substrates by Layer-by-Layer Deposition with a Paint Gun Technique for Real-Time Monitoring of Protein-Lipid Interactions. <i>Langmuir</i> , 2009, 25, 3075-3082.	3.5	23
43	On-Demand Formation of Supported Lipid Membrane Arrays by Trehalose-Assisted Vesicle Delivery for SPR Imaging. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 17122-17130.	8.0	23
44	DNA Linkers and Diluents for Ultrastable Gold Nanoparticle Bioconjugates in Multiplexed Assay Development. <i>Analytical Chemistry</i> , 2017, 89, 4272-4279.	6.5	23
45	Ultrasensitive Detection of Bacterial Protein Toxins on Patterned Microarray via Surface Plasmon Resonance Imaging with Signal Amplification by Conjugate Nanoparticle Clusters. <i>ACS Sensors</i> , 2018, 3, 1639-1646.	7.8	23
46	Development of Air-Stable, Supported Membrane Arrays with Photolithography for Study of Phosphoinositide-Protein Interactions Using Surface Plasmon Resonance Imaging. <i>Analytical Chemistry</i> , 2008, 80, 6397-6404.	6.5	22
47	Thermoresponsive Arrays Patterned via Photoclick Chemistry: Smart MALDI Plate for Protein Digest Enrichment, Desalting, and Direct MS Analysis. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 1324-1333.	8.0	21
48	Antifouling Lipid Membranes over Protein A for Orientation-Controlled Immunosensing in Undiluted Serum and Plasma. <i>ACS Sensors</i> , 2019, 4, 1774-1782.	7.8	21
49	Expanding the scope of chemiluminescence in bioanalysis with functional nanomaterials. <i>Journal of Materials Chemistry B</i> , 2019, 7, 7257-7266.	5.8	21
50	Etched Glass Microarrays with Differential Resonance for Enhanced Contrast and Sensitivity of Surface Plasmon Resonance Imaging Analysis. <i>Analytical Chemistry</i> , 2011, 83, 5936-5943.	6.5	19
51	A Membrane-Bound Synthetic Receptor that Promotes Growth of a Polymeric Coating at the Bilayer-Water Interface. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 7748-7751.	13.8	18
52	Detection of Multiple Sclerosis Biomarkers in Serum by Ganglioside Microarrays and Surface Plasmon Resonance Imaging. <i>ACS Sensors</i> , 2020, 5, 3617-3626.	7.8	18
53	Mix and Match: Coassembly of Amphiphilic Dendrimers and Phospholipids Creates Robust, Modular, and Controllable Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 1029-1035.	8.0	17
54	Multiplex immunoassay of chicken cytokines via highly-sensitive chemiluminescent imaging array. <i>Analytica Chimica Acta</i> , 2019, 1049, 213-218.	5.4	17

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55	Nanoglassified, Optically-Active Monolayer Films of Gold Nanoparticles for in Situ Orthogonal Detection by Localized Surface Plasmon Resonance and Surface-Assisted Laser Desorption/Ionization-MS. <i>Analytical Chemistry</i> , 2014, 86, 11942-11945.	6.5	16
56	Labeled Protein Recognition at a Membrane Bilayer Interface by Embedded Synthetic Receptors. <i>Langmuir</i> , 2014, 30, 10161-10166.	3.5	16
57	Lipidomic Profiling of Algae with Microarray MALDI-MS toward Ecotoxicological Monitoring of Herbicide Exposure. <i>Environmental Science &amp; Technology</i> , 2021, 55, 10558-10568.	10.0	16
58	Quantitation of Alpha-Glucosidase Activity Using Fluorinated Carbohydrate Array and MALDI-TOF-MS. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 2872-2878.	8.0	14
59	Plasmonic Gold Templates Enhancing Single Cell Lipidomic Analysis of Microorganisms. <i>Analytical Chemistry</i> , 2020, 92, 6213-6217.	6.5	14
60	Amino Acid-Based Imidazole Ionic Liquid: A Novel Soft Matrix for Electrochemical Biosensing Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 4157-4166.	6.7	14
61	Anionic deep cavitands enable the adhesion of unmodified proteins at a membrane bilayer. <i>Soft Matter</i> , 2014, 10, 9651-9656.	2.7	13
62	Chemoselective ligation reaction of N-acetylglucosamine (NAG) with hydrazide functional probes to determine galactosyltransferase activity by MALDI mass spectrometry. <i>Analyst</i> , 2017, 142, 2654-2662.	3.5	13
63	Protein Recognition by a Self-Assembled Deep Cavitand Monolayer on a Gold Substrate. <i>Langmuir</i> , 2012, 28, 1391-1398.	3.5	11
64	Bioinspired assemblies and plasmonic interfaces for electrochemical biosensing. <i>Journal of Electroanalytical Chemistry</i> , 2016, 781, 136-146.	3.8	10
65	Tunable Enhancement of a Graphene/Polyaniline/Poly(ethylene oxide) Composite Electrospun Nanofiber Gas Sensor. <i>Journal of Analysis and Testing</i> , 2017, 1, 1.	5.1	10
66	Gold nanoparticle-coupled liposomes for enhanced plasmonic biosensing. <i>Sensors and Actuators Reports</i> , 2020, 2, 100023.	4.4	10
67	Cell and Protein Recognition at a Supported Bilayer Interface via In Situ Cavitand-Mediated Functional Polymer Growth. <i>Langmuir</i> , 2015, 31, 11152-11157.	3.5	9
68	Graphene Oxide Nanocarriers for Fluorescent Sensing of Calcium Ion Accumulation and Direct Assessment of Ion-Induced Enzymatic Activities in Cells. <i>ACS Applied Nano Materials</i> , 2019, 2, 5594-5603.	5.0	7
69	Selective protein recognition in supported lipid bilayer arrays by tailored, dual-mode deep cavitand hosts. <i>Soft Matter</i> , 2017, 13, 3966-3974.	2.7	6
70	Plasmon-Enhanced Fluorescence in Electrospun Nanofibers of Polydiacetylenes Infused with Silver Nanoparticles. <i>Langmuir</i> , 2021, 37, 14920-14929.	3.5	5
71	Plasmonic nanodisc arrays on calcinated titania for multimodal analysis of phosphorylated peptides. <i>RSC Advances</i> , 2017, 7, 48068-48076.	3.6	3
72	The determination of Sulfobutylether $\beta$ -Cyclodextrin Sodium (SBECD) by LC-MS/MS and its application in remdesivir pharmacokinetics study for pediatric patients. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2022, 212, 114646.	2.8	3

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73	Probing Herbicide Toxicity to Algae ( <i>Selenastrum capricornutum</i> ) by Lipid Profiling with Machine Learning and Microchip/MALDI-TOF Mass Spectrometry. <i>Chemical Research in Toxicology</i> , 2022, 35, 606-615.	3.3	3
74	Surface plasmon resonance imaging (SPRi) in combination with machine learning for microarray analysis of multiple sclerosis biomarkers in whole serum. <i>Biosensors and Bioelectronics: X</i> , 2022, 10, 100127.	1.7	3
75	Assembly and Characterization of Protein Resistant Planar Bilayers in PDMS Microfluidic Devices. <i>Materials Research Society Symposia Proceedings</i> , 2003, 774, 721.	0.1	1
76	Surface Plasmon Resonance Spectroscopic Study on Pore-Forming Behavior of Streptolysin O on Supported Phospholipid Bilayers. <i>Materials Research Society Symposia Proceedings</i> , 2003, 774, 7191.	0.1	0
77	Functional Amphiphilic and Bolaamphiphilic Poly(diacetylene) Assemblies with Controlled Optical and Morphological Properties. <i>ACS Symposium Series</i> , 2004, , 96-109.	0.5	0