Xiaodi Su

List of Publications by Year
in descending order

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124 papers	5,520 citations	61857 43 h-index	88477 70 g-index
124 all docs	124 docs citations	124 times ranked	7280 citing authors

#	Article	IF	Citations
1	Carbon-Supported Pt and PtRu Nanoparticles as Catalysts for a Direct Methanol Fuel Cell. Journal of Physical Chemistry B, 2004, 108, 8234-8240.	1.2	641
2	Colorimetric Detection of DNA Using Unmodified Metallic Nanoparticles and Peptide Nucleic Acid Probes. Analytical Chemistry, 2009, 81, 6122-6129.	3.2	195
3	Surface Plasmon Resonance Spectroscopy and Quartz Crystal Microbalance Study of Streptavidin Film Structure Effects on Biotinylated DNA Assembly and Target DNA Hybridization. Langmuir, 2005, 21, 348-353.	1.6	172
4	Comparison of surface plasmon resonance spectroscopy and quartz crystal microbalance techniques for studying DNA assembly and hybridization. Biosensors and Bioelectronics, 2005, 21, 719-726.	5.3	149
5	Detection of Point Mutation and Insertion Mutations in DNA Using a Quartz Crystal Microbalance and MutS, a Mismatch Binding Protein. Analytical Chemistry, 2004, 76, 489-494.	3.2	135
6	Preparation and characterization of Pt/C and PtRu/C electrocatalysts for direct ethanol fuel cells. Journal of Power Sources, 2005, 149, 1-7.	4.0	134
7	Antimicrobial functionalization of silicone surfaces with engineered short peptides having broad spectrum antimicrobial and salt-resistant properties. Acta Biomaterialia, 2014, 10, 258-266.	4.1	134
8	Control of Metal Nanoparticles Aggregation and Dispersion by PNA and PNAâ^'DNA Complexes, and Its Application for Colorimetric DNA Detection. ACS Nano, 2009, 3, 2751-2759.	7.3	132
9	DNA-templated silver nanoclusters: structural correlation and fluorescence modulation. Nanoscale, 2016, 8, 17729-17746.	2.8	127
10	Comparative Study of Random and Oriented Antibody Immobilization as Measured by Dual Polarization Interferometry and Surface Plasmon Resonance Spectroscopy. Langmuir, 2012, 28, 997-1004.	1.6	118
11	QCM-D Analysis of Binding Mechanism of Phage Particles Displaying a Constrained Heptapeptide with Specific Affinity to SiO2and TiO2. Analytical Chemistry, 2006, 78, 4872-4879.	3.2	112
12	Fine-tuning of gold nanorod dimensions and plasmonic properties using the Hofmeister effects. Journal of Materials Chemistry C, 2016, 4, 53-61.	2.7	102
13	Recent advances in non-toxic quantum dots and their biomedical applications. Progress in Natural Science: Materials International, 2019, 29, 628-640.	1.8	85
14	Understanding Ligand Binding Effects on the Conformation of Estrogen Receptor Î±-DNA Complexes: A Combinational Quartz Crystal Microbalance with Dissipation and Surface Plasmon Resonance Study. Biophysical Journal, 2007, 92, 4415-4423.	0.2	82
15	Self-Assembled Monolayer-Based Piezoelectric Crystal Immunosensor for the Quantification of Total Human Immunoglobulin E. Analytical Biochemistry, 1999, 273, 66-72.	1.1	81
16	Cyclodextrin functionalized mesoporous silica films on quartz crystal microbalance for enhanced gas sensing. Sensors and Actuators B: Chemical, 2006, 119, 220-226.	4.0	81
17	Evaluation of two- and three-dimensional streptavidin binding platforms for surface plasmon resonance spectroscopy studies of DNA hybridization and proteinâ€“DNA binding. Biosensors and Bioelectronics, 2007, 22, 2700-2706.	5.3	75
18	Study of Single-Stranded DNA Binding Proteinâ€“Nucleic Acids Interactions using Unmodified Gold Nanoparticles and Its Application for Detection of Single Nucleotide Polymorphisms. Analytical Chemistry, 2011, 83, 4251-4257.	3.2	74

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19	Characterization of Proteinâ^'DNA Interactions Using Surface Plasmon Resonance Spectroscopy with Various Assay Schemes. Biochemistry, 2007, 46, 2127-2135.	1.2	73
20	Epitope-Functionalized Gold Nanoparticles for Rapid and Selective Detection of SARS-CoV-2 IgG Antibodies. ACS Nano, 2021, 15, 12286-12297.	7.3	73
21	Nanosized Pt and PtRu colloids as precursors for direct methanol fuel cell catalysts. Journal of Materials Chemistry, 2003, 13, 3049.	6.7	70
22	Design and Application of Piezoelectric Quartz Crystal-based Immunoassay.. Analytical Sciences, 2000, 16, 107-114.	0.8	69
23	PEGylated Antiâ€MUC1 Aptamerâ€Doxorubicin Complex for Targeted Drug Delivery to MCF7 Breast Cancer Cells. Macromolecular Bioscience, 2011, 11, 1331-1335.	2.1	68
24	Sensing of circulating cancer biomarkers with metal nanoparticles. Nanoscale, 2019, 11, 22152-22171.	2.8	68
25	Quartz tuning fork biosensor. Biosensors and Bioelectronics, 2002, 17, 111-117.	5.3	66
26	Sensing of Transcription Factor through Controlled-Assembly of Metal Nanoparticles Modified with Segmented DNA Elements. ACS Nano, 2010, 4, 5101-5110.	7.3	66
27	Protein-based fluorescent metal nanoclusters for small molecular drug screening. Chemical Communications, 2014, 50, 13805-13808.	2.2	64
28	Surface plasmon resonance spectroscopy study of interfacial binding of thrombin to antithrombin DNA aptamers. Journal of Colloid and Interface Science, 2007, 315, 99-106.	5.0	62
29	Enzyme-Based Colorimetric Detection of Nucleic Acids Using Peptide Nucleic Acid-Immobilized Microwell Plates. Analytical Chemistry, 2007, 79, 7192-7197.	3.2	61
30	Piezoelectric quartz crystal based label-free analysis for allergy disease. Biosensors and Bioelectronics, 2000, 15, 629-639.	5.3	60
31	Comparison of surface plasmon resonance spectroscopy and quartz crystal microbalance for human IgE quantification. Sensors and Actuators B: Chemical, 2004, 100, 309-314.	4.0	60
32	Comparison of DNA, aminoethylglycyl PNA and pyrrolidinyl PNA as probes for detection of DNA hybridization using surface plasmon resonance technique. Biosensors and Bioelectronics, 2010, 25, 1064-1069.	5.3	60
33	Gold-Nanoparticle-Based Assay for Instantaneous Detection of Nuclear Hormone Receptorâ^'Response Elements Interactions. Analytical Chemistry, 2010, 82, 2759-2765.	3.2	60
34	SPR study of DNA hybridization with DNA and PNA probes under stringent conditions. Biosensors and Bioelectronics, 2009, 24, 1717-1722.	5.3	59
35	Sensors, Biosensors, and Analytical Technologies for Aquaculture Water Quality. Research, 2020, 2020, 8272705.	2.8	59
36	Probing the Interaction between Peptides and Metal Oxides Using Point Mutants of a TiO₂-Binding Peptide. Langmuir, 2008, 24, 6852-6857.	1.6	58

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37	Tuning the Cellular Uptake Properties of Luminescent Heterobimetallic Iridium(III)â€“Ruthenium(II) DNA Imaging Probes. Chemistry - A European Journal, 2014, 20, 14004-14011.	1.7	53
38	Combinational Application of Surface Plasmon Resonance Spectroscopy and Quartz Crystal Microbalance for Studying Nuclear Hormone Receptorâ˜Response Element Interactions. Analytical Chemistry, 2006, 78, 5552-5558.	3.2	51
39	Context-Dependent Adsorption Behavior of Cyclic and Linear Peptides on Metal Oxide Surfaces. Langmuir, 2009, 25, 1588-1593.	1.6	48
40	Enzyme immobilization on poly(ethylene-co-acrylic acid) films studied by quartz crystal microbalance with dissipation monitoring. Journal of Colloid and Interface Science, 2005, 287, 35-42.	5.0	47
41	Au nanoparticle- and silver-enhancement reaction-amplified microgravimetric biosensor. Chemical Communications, 2001, , 755-756.	2.2	46
42	Nanomaterialsâ€based biosensors for detection of microorganisms and microbial toxins. Biotechnology Journal, 2017, 12, .	1.8	46
43	Lithographic Processes for the Scalable Fabrication of Micro- and Nanostructures for Biochips and Biosensors. ACS Sensors, 2021, 6, 2002-2024.	4.0	46
44	Determination of liquid density with a low frequency mechanical sensor based on quartz tuning fork. Sensors and Actuators B: Chemical, 2002, 84, 123-128.	4.0	44
45	Multiplatform genome-wide identification and modeling of functional human estrogen receptor binding sites. Genome Biology, 2006, 7, R82.	13.9	44
46	Surface Modification Studies of Edge-Oriented Molybdenum Sulfide Nanosheets. Langmuir, 2004, 20, 6914-6920.	1.6	42
47	Affinity analysis of DNA aptamerâ€“peptide interactions using gold nanoparticles. Analytical Biochemistry, 2012, 421, 725-731.	1.1	42
48	Femtomol SPR detection of DNAâ€“PNA hybridization with the assistance of DNA-guided polyaniline deposition. Biosensors and Bioelectronics, 2008, 23, 1715-1720.	5.3	37
49	DNA assembly on streptavidin modified surface: A study using quartz crystal microbalance with dissipation or resistance measurements. Sensors and Actuators B: Chemical, 2008, 131, 371-378.	4.0	36
50	High sensitivity molecule detection by plasmonic nanoantennas with selective binding at electromagnetic hotspots. Nanoscale, 2014, 6, 1416-1422.	2.8	36
51	Serological determination of Helicobacter pylori infection using sandwiched and enzymatically amplified piezoelectric biosensor. Analytica Chimica Acta, 2001, 429, 27-36.	2.6	34
52	Nanomaterial-based biosensors using dual transducing elements for solution phase detection. Analyst, The, 2015, 140, 2916-2943.	1.7	34
53	Serum Albumin Binding Inhibits Nuclear Uptake of Luminescent Metalâ€Complexâ€Based DNA Imaging Probes. Chemistry - A European Journal, 2015, 21, 11865-11871.	1.7	33
54	Antibody/antigen affinity behavior in liquid environment with electrical impedance analysis of quartz crystal microbalances. Biophysical Chemistry, 2002, 99, 31-41.	1.5	31

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55	Functionalized mesoporous silica films for gas sensing applications. Journal of Electroceramics, 2006, 16, 503-505.	0.8	31
56	Phthalocyanine/silica hybrid films on QCM for enhanced nitric oxide sensing. Sensors and Actuators B: Chemical, 2008, 129, 184-187.	4.0	31
57	Surface Plasmon Resonance Study of Cooperative Interactions of Estrogen Receptor Î± and Transcriptional Factor Sp1 with Composite DNA Elements. Analytical Chemistry, 2009, 81, 3344-3349.	3.2	31
58	Soft-Lithography-Mediated Submicrometer Patterning of Self-Assembled Monolayer of Hemoglobin on ITO Surfaces. Langmuir, 2000, 16, 5221-5226.	1.6	30
59	Determination of Monoenzyme- and Bienzyme-Stimulated Precipitation by a Cuvette-Based Surface Plasmon Resonance Instrument. Analytical Biochemistry, 2001, 299, 241-246.	1.1	30
60	A plasmonic nanosensor with inverse sensitivity for circulating cell-free DNA quantification. Chemical Communications, 2015, 51, 14524-14527.	2.2	30
61	Piezoelectric quartz crystal based screening test for porcine reproductive and respiratory syndrome virus infection in pigs. Analyst, The, 2000, 125, 725-730.	1.7	29
62	Polyethylene-co-acrylic Acid as Coating for Biosensor Application:â€‰ A Quartz Crystal Microbalance Study. Langmuir, 2002, 18, 9932-9936.	1.6	28
63	Covalent DNA Immobilization on Polymer-Shielded Silver-Coated Quartz Crystal Microbalance Using Photobiotin-Based UV Irradiation. Biochemical and Biophysical Research Communications, 2002, 290, 962-966.	1.0	28
64	DNA-Directed Assembly of Nanogold Dimers: A Unique Dynamic Light Scattering Sensing Probe for Transcription Factor Detection. Scientific Reports, 2016, 5, 18293.	1.6	28
65	Piezoelectric quartz crystal based veterinary diagnosis for Salmonella enteritidis infection in chicken and egg. Sensors and Actuators B: Chemical, 2001, 75, 29-35.	4.0	26
66	UV-Vis Spectroscopy and Dynamic Light Scattering Study of Gold Nanorods Aggregation. Nucleic Acid Therapeutics, 2013, 23, 273-280.	2.0	26
67	Conductive polymer-modified boron-doped diamond for DNA hybridization analysis. Chemical Physics Letters, 2004, 388, 483-487.	1.2	25
68	Four-Channel QCA Using Mesoporous Silica Films for Gas Sensing Applications. IEEE Sensors Journal, 2006, 6, 1676-1682.	2.4	25
69	Sensors and Analytical Technologies for Air Quality: Particulate Matters and Bioaerosols. Chemistry - an Asian Journal, 2020, 15, 4241-4255.	1.7	24
70	Fast Screening of Ligand-Protein Interactions based on Ligand-Induced Protein Stabilization of Gold Nanoparticles. Analytical Chemistry, 2014, 86, 2361-2370.	3.2	23
71	Dinuclear osmium(ii) probes for high-resolution visualisation of cellular DNA structure using electron microscopy. Chemical Communications, 2014, 50, 14494-14497.	2.2	23
72	Mesoporous silica thin films prepared by argon plasma treatment of solâ€“gel-derived precursor. Applied Surface Science, 2005, 245, 304-309.	3.1	22

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73	Surface plasmon resonance study of PNA interactions with double-stranded DNA. Biosensors and Bioelectronics, 2011, 26, 1918-1923.	5.3	22
74	Tunable plasmonic colorimetric assay with inverse sensitivity for extracellular DNA quantification. Chemical Communications, 2018, 54, 11260-11263.	2.2	21
75	A two-step antibody strategy for surface plasmon resonance spectroscopy detection of proteinâ€“DNA interactions in nuclear extracts. Analytical Biochemistry, 2008, 376, 137-143.	1.1	18
76	Investigative Study of Nucleic Acid-Gold Nanoparticle Interactions Using Laser-based Techniques, Electron Microscopy, and Resistive Pulse Sensing with a Nanopore. Australian Journal of Chemistry, 2011, 64, 1229.	0.5	18
77	Quartz Crystal Microbalance with Integrated Surface Plasmon Grating Coupler. Analytical Chemistry, 2008, 80, 5246-5250.	3.2	17
78	Engineering Structural Diversity in Gold Nanocrystals by Ligand-Mediated Interface Control. Chemistry of Materials, 2015, 27, 8032-8040.	3.2	17
79	Fluorescence sensing of protein-DNA interactions using conjugated polymers and graphene oxide. Sensors and Actuators B: Chemical, 2018, 271, 97-103.	4.0	17
80	Wide-field single metal nanoparticle spectroscopy for high throughput localized surface plasmon resonance sensing. Lab on A Chip, 2011, 11, 1895.	3.1	16
81	Hybrid Sensor Using Gold Nanoparticles and Conjugated Polyelectrolytes for Studying Sequence Rule in Proteinâ€“DNA Interactions. ACS Applied Materials & Interfaces, 2013, 5, 12725-12734.	4.0	16
82	A study of DNA design dependency of segmented DNA-induced gold nanoparticle aggregation towards versatile bioassay development. RSC Advances, 2013, 3, 21604.	1.7	16
83	End-on Covalent Antibody Immobilization on Dual Polarization Interferometry Sensor Chip for Enhanced Immuno-sensing. Plasmonics, 2014, 9, 851-858.	1.8	16
84	Study of the Effect of Anisotropic Gold Nanoparticles on Plasmonic Coupling with a Photosensitizer for Antimicrobial Film. ACS Applied Bio Materials, 2020, 3, 315-326.	2.3	16
85	Detecting bacterial infections in wounds: a review of biosensors and wearable sensors in comparison with conventional laboratory methods. Analyst, The, 2022, 147, 1756-1776.	1.7	16
86	Disposable, low cost, silver-coated, piezoelectric quartz crystal biosensor and electrode protection. Analyst, The, 2000, 125, 2268-2273.	1.7	15
87	Designer Tridentate Mucin 1 Aptamer for Targeted Drug Delivery. Journal of Pharmaceutical Sciences, 2012, 101, 1672-1677.	1.6	15
88	Plasmonic metal nanostructure array by glancing angle deposition for biosensing application. Sensors and Actuators B: Chemical, 2013, 183, 310-318.	4.0	15
89	Selective and enhanced nitric oxide detection using hemoprotein/silica hybrids. Sensors and Actuators B: Chemical, 2008, 133, 241-243.	4.0	14
90	A plasmonic multi-logic gate platform based on sequence-specific binding of estrogen receptors and gold nanorods. Nanoscale, 2016, 8, 19973-19977.	2.8	14

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91	Preparation of mesoporous silica films using solâ€“gel process and argon plasma treatment. Chemical Physics Letters, 2004, 395, 70-74.	1.2	13
92	Surface plasmon resonance spectroscopy and quartz crystal microbalance study of muts binding with single thymine-guanine mismatched DNA. Frontiers in Bioscience - Landmark, 2005, 10, 268.	3.0	13
93	Growth of anisotropic gold nanoparticles in photoresponsive fluid for UV sensing and erythema prediction. Nanomedicine, 2016, 11, 2845-2860.	1.7	13
94	Light-induced detuning of a quartz crystal wafer with temperature-compensated cut. Journal of Applied Physics, 2008, 103, .	1.1	11
95	Interrogating Oestrogen Receptorâ€“DNA Interactions using Metallic Nanoparticles and Surface Plasmon Resonance Technique. Australian Journal of Chemistry, 2011, 64, 1288.	0.5	11
96	Study sequence rules of estrogen receptor Î±â€“DNA interactions using dual polarization interferometry and computational modeling. Analytical Biochemistry, 2013, 433, 121-128.	1.1	11
97	Hybrid assembly of DNA-coated gold nanoparticles with water soluble conjugated polymers for studying proteinâ€“DNA interaction and ligand inhibition. RSC Advances, 2014, 4, 8883.	1.7	11
98	Purification and characterization of heparan sulfate from human primary osteoblasts. Journal of Cellular Biochemistry, 2009, 108, 1132-1142.	1.2	10
99	Studying Proteinâ€“DNA Complexes Using Gold Nanoparticles by Exploiting Particle Aggregation, Refractive Index Change, and Fluorescence Quenching and Enhancement Principles. Plasmonics, 2014, 9, 753-763.	1.8	10
100	Amplification-free and direct fluorometric determination of telomerase activity in cell lysates using chimeric DNA-templated silver nanoclusters. Mikrochimica Acta, 2019, 186, 81.	2.5	10
101	Surface Plasmon Resonance Spectroscopy and Electrochemistry Study of 4-Nitro-1,2-phenylenediamine:â€‰ A Switchable Redox Polymer with Nitro Functional Groups. Langmuir, 2006, 22, 3929-3935.	1.6	9
102	Interrogating Cooperative Interactions of Transcription Factors with Composite DNA Elements Using Gold Nanoparticles. Science of Advanced Materials, 2014, 6, 1460-1466.	0.1	9
103	Quantifying the binding between proteins and open chromatin-like DNA sequences with gold nanorods. Chemical Communications, 2019, 55, 15041-15044.	2.2	8
104	A portable SERS sensor for pyocyanin detection in simulated wound fluid and through swab sampling. Analyst, The, 2021, 146, 6924-6934.	1.7	8
105	Identification of a Wellsâ€“Dawson polyoxometalate-based AP-2Î³ inhibitor with pro-apoptotic activity. Biochemical Journal, 2018, 475, 1965-1977.	1.7	7
106	Studying forkhead box protein A1â€“DNA interaction and ligand inhibition using gold nanoparticles, electrophoretic mobility shift assay, and fluorescence anisotropy. Analytical Biochemistry, 2014, 448, 95-104.	1.1	6
107	Engineering LacI for Selfâ€Assembly of Inorganic Nanoparticles on DNA Scaffold through the Understanding of LacI Binding to Solid Surfaces. Advanced Functional Materials, 2009, 19, 1186-1192.	7.8	5
108	Study of nucleic acidâ€”gold nanorod interactions and detecting nucleic acid hybridization using gold nanorod solutions in the presence of sodium citrate. Biointerphases, 2010, 5, FA98-FA104.	0.6	5

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109	A Rapid and Quantitative Fluorimetric Method for Protein-Targeting Small Molecule Drug Screening. Journal of Visualized Experiments, 2015, , e53261.	0.2	5
110	Structure-selective differentiation of deletion mutations in circulating tumor DNA using dual probe-based isothermal amplification. Chemical Communications, 2021, 57, 6796-6799.	2.2	5
111	Hybrid Plasmonics and Two-Dimensional Materials: Theory and Applications. Journal of Molecular and Engineering Materials, 2020, 08, 2030001.	0.9	4
112	Spacer effect of cooperative binding of estrogen receptor Î± and specificity protein 1 to composite DNA: A surface plasmon resonance study. Sensors and Actuators B: Chemical, 2014, 195, 635-642.	4.0	3
113	The Plasmonic Ruler Goes 3D!. ChemPhysChem, 2011, 12, 2707-2708.	1.0	2
114	Surface Plasmon Resonance Study of Cooperative Interactions of Estrogen Receptor Î± and Specificity Protein 1 with Composite DNA Elements. Methods in Molecular Biology, 2016, 1366, 261-270.	0.4	2
115	A Nanoplasmonicâ€Fluorescent Ruler for Detection of Siteâ€Specific Protein Binding to Composite DNA of Multiple Sites. Particle and Particle Systems Characterization, 2014, 31, 1281-1290.	1.2	1
116	Identification of lysine K18 acetylation on histone H3 peptide using gold nanoparticlesâ€™ aggregation behaviour. Amino Acids, 2016, 48, 1023-1031.	1.2	1
117	Gold Nanoparticleâ€based â€œMix and Measureâ€Fluorimetric Assays to Quantify Antibody Titer. Chemistry - an Asian Journal, 2021, 16, 3188-3193.	1.7	1
118	Gold Nanoparticle-Based FÃ¶rster Resonance Energy Transfer (FRET) Analysis of Estrogen Receptor: DNA Interaction. Methods in Molecular Biology, 2016, 1366, 219-232.	0.4	1
119	Lithographic Patterning of Nanoscale Arrays of the Oxidase Enzyme CotA: Effects on Activity and Stability. Advanced Materials Technologies, 0, , 2200490.	3.0	1
120	Studying nuclear hormone receptor-response element interactions using surface plasmon resonance imaging technique. , 2009, , .		0
121	SURFACE PLASMON RESONANCE SPECTROSCOPY AND QUARTZ CRYSTAL MICROBALANCE STUDY OF PROTEIN-DNA INTERACTIONS IN HORMONE RECEPTOR BIOLOGY. Cosmos, 2009, 05, 79-95.	0.4	0
122	Noble Metal Nanoparticles as Colorimetric Probes for Biological Analysis. , 2010, , 183-214.		0
123	Determining ERÎ² Binding Affinity to Singly Mutant ERE Using Dual Polarization Interferometry. Journal of Molecular and Engineering Materials, 2016, 04, 1640008.	0.9	0
124	Determination of DNA Binding Behavior of FoxA1 Constructs Using a Gold Nanoparticle-Based High Throughput Assay. Journal of Molecular and Engineering Materials, 2016, 04, 1640012.	0.9	0