

Wen-Yih Chen

List of Publications by Year in descending order

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papers

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citations

126907

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h-index

138484

58
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111
all docs

111
docs citations

111
times ranked

4947
citing authors

#	ARTICLE	IF	CITATIONS
1	Sulfobetaine-grafted poly(vinylidene fluoride) ultrafiltration membranes exhibit excellent antifouling property. <i>Journal of Membrane Science</i> , 2009, 339, 151-159.	8.2	230
2	A Highly Stable Nonbiofouling Surface with Well-Packed Grafted Zwitterionic Polysulfobetaine for Plasma Protein Repulsion. <i>Langmuir</i> , 2008, 24, 5453-5458.	3.5	213
3	Field-Effect Transistor Biosensors for Biomedical Applications: Recent Advances and Future Prospects. <i>Sensors</i> , 2019, 19, 4214.	3.8	155
4	Preparation of poly(vinylidene fluoride) microfiltration membrane with uniform surface-copolymerized poly(ethylene glycol) methacrylate and improvement of blood compatibility. <i>Journal of Membrane Science</i> , 2008, 309, 165-174.	8.2	138
5	Hemocompatible Mixed-Charge Copolymer Brushes of Pseudozwitterionic Surfaces Resistant to Nonspecific Plasma Protein Fouling. <i>Langmuir</i> , 2010, 26, 3522-3530.	3.5	137
6	Effect of Temperature on Hydrophobic Interaction between Proteins and Hydrophobic Adsorbents: Studies by Isothermal Titration Calorimetry and the van't Hoff Equation. <i>Langmuir</i> , 2003, 19, 9395-9403.	3.5	132
7	Dual-Thermoresponsive Phase Behavior of Blood Compatible Zwitterionic Copolymers Containing Nonionic Poly(<i>N</i> -isopropyl acrylamide). <i>Biomacromolecules</i> , 2009, 10, 2092-2100.	5.4	121
8	Tunable Bioadhesive Copolymer Hydrogels of Thermoresponsive Poly(<i>N</i> -isopropyl acrylamide) Containing Zwitterionic Polysulfobetaine. <i>Biomacromolecules</i> , 2010, 11, 1101-1110.	5.4	121
9	Modification of Silicone Elastomer with Zwitterionic Silane for Durable Antifouling Properties. <i>Langmuir</i> , 2014, 30, 11386-11393.	3.5	121
10	Studies of the binding mechanism between aptamers and thrombin by circular dichroism, surface plasmon resonance and isothermal titration calorimetry. <i>Colloids and Surfaces B: Biointerfaces</i> , 2011, 88, 552-558.	5.0	102
11	Effect of Block Size and Sequence on the Micellization of ABC Triblock Methacrylic Polyampholytes. <i>Macromolecules</i> , 1995, 28, 8604-8611.	4.8	97
12	Biofouling Resistance of Ultrafiltration Membranes Controlled by Surface Self-Assembled Coating with PEGylated Copolymers. <i>Langmuir</i> , 2012, 28, 1399-1407.	3.5	90
13	Microcalorimetric studies of interactions between proteins and hydrophobic ligands in hydrophobic interaction chromatography: effects of ligand chain length, density and the amount of bound protein. <i>Journal of Chromatography A</i> , 2000, 872, 37-47.	3.7	89
14	Microcalorimetric Studies on the Interaction Mechanism between Proteins and Hydrophobic Solid Surfaces in Hydrophobic Interaction Chromatography: Effects of Salts, Hydrophobicity of the Sorbent, and Structure of the Protein. <i>Analytical Chemistry</i> , 2001, 73, 3875-3883.	6.5	89
15	Microcalorimetric studies of the interaction mechanisms between proteins and Q-Sepharose at pH near the isoelectric point (pI). <i>Journal of Chromatography A</i> , 2001, 912, 281-289.	3.7	80
16	Preparation of a DNA Aptamer-Pt Complex and Its Use in the Colorimetric Sensing of Thrombin and Anti-Thrombin Antibodies. <i>Analytical Chemistry</i> , 2008, 80, 6580-6586.	6.5	75
17	Recent trends and some applications of isothermal titration calorimetry in biotechnology. <i>Biotechnology Journal</i> , 2010, 5, 85-98.	3.5	73
18	Microcalorimetrics Studies of the Thermodynamics and Binding Mechanism between <i>N</i> -Tyrosinamide and Aptamer. <i>Journal of Physical Chemistry B</i> , 2008, 112, 6665-6673.	2.6	65

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19	The investigation of recognition interaction between phenylboronate monolayer and glycosylated hemoglobin using surface plasmon resonance. <i>Analytical Biochemistry</i> , 2008, 375, 90-96.	2.4	63
20	Interactions of Imidazole and Proteins with Immobilized Cu(II) Ions: Effects of Structure, Salt Concentration, and pH in Affinity and Binding Capacity. <i>Journal of Colloid and Interface Science</i> , 1996, 180, 135-143.	9.4	62
21	Isothermal Titration Microcalorimetric Studies of the Effect of Temperature on Hydrophobic Interaction between Proteins and Hydrophobic Adsorbents. <i>Journal of Colloid and Interface Science</i> , 2000, 229, 600-606.	9.4	57
22	Sensitive metal layer assisted guided mode resonance biosensor with a spectrum inverted response and strong asymmetric resonance field distribution. <i>Optics Express</i> , 2012, 20, 14584.	3.4	55
23	Thermodynamic analysis of the interaction between proteins and solid surfaces: application to liquid chromatography. <i>Journal of Molecular Recognition</i> , 2002, 15, 55-93.	2.1	54
24	Bioadhesive Control of Plasma Proteins and Blood Cells from Umbilical Cord Blood onto the Interface Grafted with Zwitterionic Polymer Brushes. <i>Langmuir</i> , 2012, 28, 4309-4317.	3.5	50
25	Kinetics and enthalpy measurements of interaction between β -amyloid and liposomes by surface plasmon resonance and isothermal titration microcalorimetry. <i>Colloids and Surfaces B: Biointerfaces</i> , 2007, 58, 231-236.	5.0	49
26	Investigation of the Mechanism of β -Amyloid Fibril Formation by Kinetic and Thermodynamic Analyses. <i>Langmuir</i> , 2008, 24, 5802-5808.	3.5	48
27	Molecular recognition in imprinted polymers: thermodynamic investigation of analyte binding using microcalorimetry. <i>Journal of Chromatography A</i> , 2001, 923, 1-6.	3.7	43
28	Isothermal titration calorimetry for drug design: Precision of the enthalpy and binding constant measurements and comparison of the instruments. <i>Analytical Biochemistry</i> , 2016, 515, 61-64.	2.4	43
29	Microcalorimetric Studies of the Interactions of Lysozyme with Immobilized Metal Ions: Effects of Ion, pH Value, and Salt Concentration. <i>Journal of Colloid and Interface Science</i> , 1999, 214, 373-379.	9.4	42
30	Investigating the effects of sodium dodecyl sulfate on the aggregative behavior of hen egg-white lysozyme at acidic pH. <i>Colloids and Surfaces B: Biointerfaces</i> , 2010, 81, 141-151.	5.0	39
31	Examining the levels of ganglioside and cholesterol in cell membrane on attenuation the cytotoxicity of beta-amyloid peptide. <i>Colloids and Surfaces B: Biointerfaces</i> , 2008, 65, 172-177.	5.0	38
32	Microcalorimetric investigation of the interaction of polysorbate surfactants with unilamellar phosphatidylcholines liposomes. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2003, 213, 7-14.	4.7	36
33	Microcalorimetric Studies of the Interactions of Lysozyme with Immobilized Cu(II): Effects of pH Value and Salt Concentration. <i>Journal of Colloid and Interface Science</i> , 1997, 190, 49-54.	9.4	35
34	Computational Selection of RNA Aptamer against Angiopoietin-2 and Experimental Evaluation. <i>BioMed Research International</i> , 2015, 2015, 1-8.	1.9	33
35	Neutralized chimeric DNA probe for detection of single nucleotide polymorphism on surface plasmon resonance biosensor. <i>Biosensors and Bioelectronics</i> , 2018, 99, 170-175.	10.1	30
36	Signal Enhancement of Silicon Nanowire Field-Effect Transistor Immunosensors by RNA Aptamer. <i>ACS Omega</i> , 2019, 4, 14765-14771.	3.5	30

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37	Isothermal titration calorimetry for characterization of recombinant proteins. <i>Current Opinion in Biotechnology</i> , 2019, 55, 9-15.	6.6	30
38	Thermodynamic basis of chiral recognition in a DNA aptamer. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 9744.	2.8	29
39	Rapid analysis of abused drugs using nanostructured silicon surface assisted laser desorption/ionization mass spectrometry. <i>Analyst</i> , 2012, 137, 654-661.	3.5	28
40	Improved DNA detection by utilizing electrically neutral DNA probe in field-effect transistor measurements as evidenced by surface plasmon resonance imaging. <i>Biosensors and Bioelectronics</i> , 2013, 41, 795-801.	10.1	28
41	Microcalorimetric Studies of the Interactions of Imidazole with Immobilized Cu(II): Effects of pH Value and Salt Concentration. <i>Journal of Colloid and Interface Science</i> , 1996, 183, 236-242.	9.4	26
42	Molecular dynamics simulation of the induced fit binding process of DNA aptamer and L-argininamide. <i>Biotechnology Journal</i> , 2012, 7, 1367-1375.	3.5	25
43	Exploring the effect of cholesterol in lipid bilayer membrane on the melittin penetration mechanism. <i>Analytical Biochemistry</i> , 2007, 367, 49-55.	2.4	24
44	Use of Biotinylated Chitosan for Substrate-Mediated Gene Delivery. <i>Bioconjugate Chemistry</i> , 2012, 23, 1587-1599.	3.6	24
45	Strategy of Fc-Recognizable Peptide Ligand Design for Oriented Immobilization of Antibody. <i>Analytical Chemistry</i> , 2014, 86, 2931-2938.	6.5	24
46	A Guided Mode Resonance Aptasensor for Thrombin Detection. <i>Sensors</i> , 2011, 11, 8953-8965.	3.8	23
47	Uncertainty in protein-ligand binding constants: asymmetric confidence intervals versus standard errors. <i>European Biophysics Journal</i> , 2021, 50, 661-670.	2.2	23
48	The curing reaction of poly(ether-sulfone)-modified epoxy resin. <i>Macromolecular Chemistry and Physics</i> , 1995, 196, 3447-3458.	2.2	21
49	Predicting Future Prospects of Aptamers in Field-Effect Transistor Biosensors. <i>Molecules</i> , 2020, 25, 680.	3.8	21
50	An investigation into the influence of secondary structures on DNA hybridization using surface plasmon resonance biosensing. <i>Chemical Physics Letters</i> , 2004, 397, 429-434.	2.6	19
51	Repeatability, precision, and accuracy of the enthalpies and Gibbs energies of a protein-ligand binding reaction measured by isothermal titration calorimetry. <i>European Biophysics Journal</i> , 2019, 48, 139-152.	2.2	19
52	The sorption of lysozyme and ribonuclease onto ferromagnetic nickel powder 1. Adsorption of single components. <i>Colloids and Surfaces B: Biointerfaces</i> , 1995, 5, 25-34.	5.0	18
53	Optimization of DNA-directed immobilization on mixed oligo(ethylene glycol) monolayers for immunodetection. <i>Analytical Biochemistry</i> , 2012, 423, 26-35.	2.4	18
54	Kosmotrope-like Hydration Behavior of Polyethylene Glycol from Microcalorimetry and Binding Isotherm Measurements. <i>Langmuir</i> , 2013, 29, 4259-4265.	3.5	18

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55	Characterization of the Interaction of Galectin-1 with Sodium Arsenite. <i>Chemical Research in Toxicology</i> , 2006, 19, 469-474.	3.3	17
56	The regulation of DNA adsorption and release through chitosan multilayers. <i>Carbohydrate Polymers</i> , 2014, 99, 394-402.	10.2	17
57	Improved biomarker quantification of silicon nanowire field-effect transistor immunosensors with signal enhancement by RNA aptamer: Amyloid beta as a case study. <i>Sensors and Actuators B: Chemical</i> , 2021, 329, 129150.	7.8	16
58	A replaceable liposomal aptamer for the ultrasensitive and rapid detection of biotin. <i>Scientific Reports</i> , 2016, 6, 21369.	3.3	15
59	Designed phosphate-methylated oligonucleotides as PCR primers for SNP discrimination. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 3871-3880.	3.7	15
60	The Effects of Amino Acid Sequence on the Partition of Peptides in Aqueous Two-Phase System.. <i>Journal of Chemical Engineering of Japan</i> , 1994, 27, 688-690.	0.6	14
61	A method to predict the transdermal permeability of amino acids and dipeptides through porcine skin. <i>Journal of Controlled Release</i> , 1996, 38, 229-234.	9.9	14
62	The role of electroosmotic flow on in-vitro transdermal iontophoresis. <i>Journal of Controlled Release</i> , 1997, 43, 23-33.	9.9	14
63	Determination of the Second Virial Coefficient of the Interaction between Microemulsion Droplets by Microcalorimetry. <i>Langmuir</i> , 2000, 16, 300-302.	3.5	14
64	Microcalorimetric studies of the mechanism of interaction between designed peptides and hydrophobic adsorbents. <i>Journal of Colloid and Interface Science</i> , 2003, 263, 23-28.	9.4	14
65	Synergetic improvements of sensitivity and specificity of nanowire field effect transistor gene chip by designing neutralized DNA as probe. <i>Scientific Reports</i> , 2018, 8, 12598.	3.3	14
66	Neutralized chimeric DNA probe for the improvement of GC-rich RNA detection specificity on the nanowire field-effect transistor. <i>Scientific Reports</i> , 2019, 9, 11056.	3.3	14
67	Improve sample preparation process for miRNA isolation from the culture cells by using silica fiber membrane. <i>Scientific Reports</i> , 2020, 10, 21132.	3.3	14
68	The effects of denaturants on protein conformation and behavior at air/solution interface. <i>Colloids and Surfaces B: Biointerfaces</i> , 2005, 41, 1-6.	5.0	13
69	Permeation of blood cells from umbilical cord blood through surface-modified polyurethane foaming membranes. <i>Journal of Membrane Science</i> , 2009, 339, 184-188.	8.2	13
70	A novel application of indolicidin for gene delivery. <i>International Journal of Pharmaceutics</i> , 2013, 456, 293-300.	5.2	13
71	Revisiting the streptavidin-biotin binding by using an aptamer and displacement isothermal calorimetry titration. <i>Journal of Molecular Recognition</i> , 2015, 28, 125-128.	2.1	13
72	The Combination of Computational and Biosensing Technologies for Selecting Aptamer against Prostate Specific Antigen. <i>BioMed Research International</i> , 2017, 2017, 1-11.	1.9	13

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73	Renaturation and Interaction of Ribonuclease A with AOT Surfactant in Reverse Micelles. <i>Biotechnology Progress</i> , 2002, 18, 1443-1446.	2.6	11
74	Molecular Dynamics Simulations of Human Cystatin C and Its L68Q Variant to Investigate the Domain Swapping Mechanism. <i>Journal of Biomolecular Structure and Dynamics</i> , 2007, 25, 135-144.	3.5	11
75	Novel Enzymatic Properties of DNA ⁺ Pt Complexes. <i>Biomacromolecules</i> , 2007, 8, 2684-2688.	5.4	11
76	A Polarization Control System for Intensity-Resolved Guided Mode Resonance Sensors. <i>Sensors</i> , 2014, 14, 5198-5206.	3.8	11
77	Protein separation by hydrophobic interaction chromatography using methacrylic block copolymers as displacers. <i>Journal of Chromatography A</i> , 1998, 824, 35-43.	3.7	10
78	Molecular Dynamics Simulations To Investigate the Domain Swapping Mechanism of Human Cystatin C. <i>Biotechnology Progress</i> , 2008, 23, 577-584.	2.6	10
79	Salt bridge exchange binding mechanism between streptavidin and its DNA aptamer – thermodynamics and spectroscopic evidences. <i>Journal of Molecular Recognition</i> , 2013, 26, 149-159.	2.1	10
80	Reduction of interstrand charge repulsion of DNA duplexes by salts and by neutral phosphotriesters – Contrary effects for harnessing duplex formation. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2020, 110, 1-7.	5.3	10
81	Optimizing surface modification of silicon nanowire field-effect transistors by polyethylene glycol for MicroRNA detection. <i>Colloids and Surfaces B: Biointerfaces</i> , 2022, 209, 112142.	5.0	10
82	Dynamic fluorescence imaging analysis to investigate the cholesterol recruitment in lipid monolayer during the interaction between I ² -amyloid (I ² -40) and lipid monolayers. <i>Colloids and Surfaces B: Biointerfaces</i> , 2009, 74, 59-66.	5.0	9
83	Hydrostatic pressure enhances mitomycin C induced apoptosis in urothelial carcinoma cells. <i>Urologic Oncology: Seminars and Original Investigations</i> , 2014, 32, 26.e17-26.e24.	1.6	9
84	Effects of solute–matrix interaction on monitoring the conformational changes of immobilized proteins by surface plasmon resonance sensor. <i>Talanta</i> , 2005, 67, 862-867.	5.5	8
85	Daunomycin interaction with DNA: Microcalorimetric studies of the thermodynamics and binding mechanism. <i>Biotechnology Journal</i> , 2010, 5, 1069-1077.	3.5	8
86	Microcalorimetric Study of the Effect of Hexa-histidine Tag and Denaturant on the Interaction Mechanism between Protein and Metal-Chelating Gel. <i>Journal of Colloid and Interface Science</i> , 2001, 238, 333-339.	9.4	7
87	The consideration of indolicidin modification to balance its hemocompatibility and delivery efficiency. <i>International Journal of Pharmaceutics</i> , 2015, 494, 498-505.	5.2	7
88	Studies of the interactions mechanism between DNA and silica surfaces by Isothermal Titration Calorimetry. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2020, 116, 62-66.	5.3	7
89	Paper-Based Devices for Capturing Exosomes and Exosomal Nucleic Acids From Biological Samples. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, 836082.	4.1	7
90	Preservation of Hematopoietic Stem and Progenitor Cells from Umbilical Cord Blood Stored in a Surface Derivatized with Polymer Nanosegments. <i>Biomacromolecules</i> , 2008, 9, 634-639.	5.4	5

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91	Increasing the λ -Red mediated gene deletion efficiency in Escherichia coli using methyl phosphotriester-modified DNA. Journal of the Taiwan Institute of Chemical Engineers, 2022, 137, 104297.	5.3	5
92	In-Silico Selection of Aptamer Targeting SARS-CoV-2 Spike Protein. International Journal of Molecular Sciences, 2022, 23, 5810.	4.1	5
93	Combination of Aptamer Amplifier and Antigen-Binding Fragment Probe as a Novel Strategy to Improve Detection Limit of Silicon Nanowire Field-Effect Transistor Immunosensors. Sensors, 2021, 21, 650.	3.8	4
94	Thermodynamics and mechanism of ssDNA hybridization below the melting temperature by isothermal titration calorimetry. Thermochimica Acta, 2005, 433, 83-87.	2.7	3
95	Preparation of fractioned DNA aptamer-Pt complex through ultrafiltration and the colorimetric sensing of thrombin. Journal of Membrane Science, 2009, 328, 97-103.	8.2	3
96	Structural stability-chromatographic retention relationship on exenatide diastereomer separation. Analytical and Bioanalytical Chemistry, 2012, 404, 2437-2444.	3.7	3
97	Real-time changes in the AC magnetic susceptibility of reagents during immunomagnetic reduction assays. AIP Advances, 2022, 12, 065220.	1.3	3
98	Peroxidase Activity of DNA Aptamer-Pt Complexes Prepared with Cisplatin. Journal of Biomaterials Science, Polymer Edition, 2010, 21, 67-82.	3.5	2
99	Using isothermal titration calorimetry to real-time monitor the heat of metabolism: A case study using PC12 cells and Al^{2+} (1×10^{-4}). Colloids and Surfaces B: Biointerfaces, 2011, 83, 307-312.	5.0	2
100	Phosphate-Methylated Oligonucleotides as a Novel Primer for PCR and RT-PCR. Methods in Molecular Biology, 2022, 2392, 261-273.	0.9	2
101	In vitro study of enzymatic degradation of biological tissues fixed by glutaraldehyde or epoxy compound. Journal of Biomaterials Science, Polymer Edition, 1997, 8, 587-600.	3.5	1
102	Separation of hematopoietic stem and progenitor cells from human peripheral blood through polyurethane foaming membranes modified with several amino acids. Journal of Applied Polymer Science, 2009, 114, 671-679.	2.6	1
103	Real-time monitoring DNA hybridization by guided resonant mode biosensor. , 2011, , .		1
104	Investigating interactions between proteins and nucleic acids by computational approaches. , 2017, , 98-117.		1
105	Nanostructured Silicon Substrate for Desorption/Ionization on Silicon Mass Spectrometry Coupled with Titanium Oxide and Zinc Oxide Coated Magnetic Nanoparticles for Phosphopeptide Analysis. Journal of Nanoscience and Nanotechnology, 2017, 17, 2054-2060.	0.9	1
106	Molecular self-interactions of ribonuclease A revealed by isothermal titration calorimetry and self-interaction chromatography - Effects of anisotropy of protein surface charges. Journal of the Taiwan Institute of Chemical Engineers, 2019, 96, 74-81.	5.3	1
107	Switching the Inhibitor-Enzyme Recognition Profile via Chimeric Carbonic Anhydrase XII. ChemistryOpen, 2021, 10, 567-580.	1.9	1
108	Use of a kinesin-cro Fusion Protein as the Nanoshuttle to Transport Specific DNA. Current Nanoscience, 2012, 8, 669-675.	1.2	0

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109	Evaluation of Bioactivity and Effect of Polymeric Stabilizers During Heat Treatment for the Unfolded Fraction of Human Epidermal Growth Factor. <i>Journal of Fiber Science and Technology</i> , 2011, 67, 185-191.	0.0	0
110	A Study on the Effect of an Aptamer with an Embedded Phosphate-Methylated Nucleotide on the Binding of a Target Molecule Using Molecular Simulation. <i>Lecture Notes in Electrical Engineering</i> , 2020, , 31-38.	0.4	0