## Wen-Yih Chen

## List of Publications by Year in descending order

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126907 138484 3,810 110 33 58 citations h-index g-index papers 111 111 111 4947 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Optimizing surface modification of silicon nanowire field-effect transistors by polyethylene glycol for MicroRNA detection. Colloids and Surfaces B: Biointerfaces, 2022, 209, 112142.	5.0	10
2	Phosphate-Methylated Oligonucleotides as a Novel Primer for PCR and RT-PCR. Methods in Molecular Biology, 2022, 2392, 261-273.	0.9	2
3	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
4	Paper-Based Devices for Capturing Exosomes and Exosomal Nucleic Acids From Biological Samples. Frontiers in Bioengineering and Biotechnology, 2022, 10, 836082.	4.1	7
5	In-Silico Selection of Aptamer Targeting SARS-CoV-2 Spike Protein. International Journal of Molecular Sciences, 2022, 23, 5810.	4.1	5
6	Real-time changes in the AC magnetic susceptibility of reagents during immunomagnetic reduction assays. AIP Advances, 2022, 12, 065220.	1.3	3
7	Improved biomarker quantification of silicon nanowire field-effect transistor immunosensors with signal enhancement by RNA aptamer: Amyloid beta as a case study. Sensors and Actuators B: Chemical, 2021, 329, 129150.	7.8	16
8	Uncertainty in protein–ligand binding constants: asymmetric confidence intervals versus standard errors. European Biophysics Journal, 2021, 50, 661-670.	2.2	23
9	Switching the Inhibitorâ€Enzyme Recognition Profile via Chimeric Carbonic Anhydrase XII. ChemistryOpen, 2021, 10, 567-580.	1.9	1
10	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
11	Studies of the interactions mechanism between DNA and silica surfaces by Isothermal Titration Calorimetry. Journal of the Taiwan Institute of Chemical Engineers, 2020, 116, 62-66.	5.3	7
12	Improve sample preparation process for miRNA isolation from the culture cells by using silica fiber membrane. Scientific Reports, 2020, 10, 21132.	3.3	14
13	Reduction of interstrand charge repulsion of DNA duplexes by salts and by neutral phosphotriesters $\hat{a} \in \text{``Contrary effects for harnessing duplex formation. Journal of the Taiwan Institute of Chemical Engineers, 2020, 110, 1-7.}$	5.3	10
14	Predicting Future Prospects of Aptamers in Field-Effect Transistor Biosensors. Molecules, 2020, 25, 680.	3.8	21
15	A Study on the Effect of an Aptamer with an Embedded Phosphate-Methylated Nucleotide on the Binding of a Target Molecule Using Molecular Simulation. Lecture Notes in Electrical Engineering, 2020, , 31-38.	0.4	0
16	Neutralized chimeric DNA probe for the improvement of GC-rich RNA detection specificity on the nanowire field-effect transistor. Scientific Reports, 2019, 9, 11056.	3.3	14
17	Signal Enhancement of Silicon Nanowire Field-Effect Transistor Immunosensors by RNA Aptamer. ACS Omega, 2019, 4, 14765-14771.	3.5	30
18	Field-Effect Transistor Biosensors for Biomedical Applications: Recent Advances and Future Prospects. Sensors, 2019, 19, 4214.	3.8	155

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19	Designed phosphate-methylated oligonucleotides as PCR primers for SNP discrimination. Analytical and Bioanalytical Chemistry, 2019, 411, 3871-3880.	3.7	15
20	Isothermal titration calorimetry for characterization of recombinant proteins. Current Opinion in Biotechnology, 2019, 55, 9-15.	6.6	30
21	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
22	Repeatability, precision, and accuracy of the enthalpies and Gibbs energies of a protein–ligand binding reaction measured by isothermal titration calorimetry. European Biophysics Journal, 2019, 48, 139-152.	2.2	19
23	Neutralized chimeric DNA probe for detection of single nucleotide polymorphism on surface plasmon resonance biosensor. Biosensors and Bioelectronics, 2018, 99, 170-175.	10.1	30
24	Synergetic improvements of sensitivity and specificity of nanowire field effect transistor gene chip by designing neutralized DNA as probe. Scientific Reports, 2018, 8, 12598.	3.3	14
25	Investigating interactions between proteins and nucleic acids by computational approaches. , 2017, , 98-117.		1
26	The Combination of Computational and Biosensing Technologies for Selecting Aptamer against Prostate Specific Antigen. BioMed Research International, 2017, 2017, 1-11.	1.9	13
27	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
28	Isothermal titration calorimetry for drug design: Precision of the enthalpy and binding constant measurements and comparison of the instruments. Analytical Biochemistry, 2016, 515, 61-64.	2.4	43
29	A replaceable liposomal aptamer for the ultrasensitive and rapid detection of biotin. Scientific Reports, 2016, 6, 21369.	3.3	15
30	Computational Selection of RNA Aptamer against Angiopoietin-2 and Experimental Evaluation. BioMed Research International, 2015, 2015, 1-8.	1.9	33
31	Revisiting the streptavidin–biotin binding by using an aptamer and displacement isothermal calorimetry titration. Journal of Molecular Recognition, 2015, 28, 125-128.	2.1	13
32	The consideration of indolicidin modification to balance its hemocompatibility and delivery efficiency. International Journal of Pharmaceutics, 2015, 494, 498-505.	5.2	7
33	A Polarization Control System for Intensity-Resolved Guided Mode Resonance Sensors. Sensors, 2014, 14, 5198-5206.	3.8	11
34	The regulation of DNA adsorption and release through chitosan multilayers. Carbohydrate Polymers, 2014, 99, 394-402.	10.2	17
35	Modification of Silicone Elastomer with Zwitterionic Silane for Durable Antifouling Properties. Langmuir, 2014, 30, 11386-11393.	3.5	121
36	Strategy of Fc-Recognizable Peptide Ligand Design for Oriented Immobilization of Antibody. Analytical Chemistry, 2014, 86, 2931-2938.	6.5	24

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37	Hydrostatic pressure enhances mitomycin C induced apoptosis in urothelial carcinoma cells. Urologic Oncology: Seminars and Original Investigations, 2014, 32, 26.e17-26.e24.	1.6	9
38	A novel application of indolicidin for gene delivery. International Journal of Pharmaceutics, 2013, 456, 293-300.	5.2	13
39	Salt bridge exchange binding mechanism between streptavidin and its DNA aptamer – thermodynamics and spectroscopic evidences. Journal of Molecular Recognition, 2013, 26, 149-159.	2.1	10
40	Improved DNA detection by utilizing electrically neutral DNA probe in field-effect transistor measurements as evidenced by surface plasmon resonance imaging. Biosensors and Bioelectronics, 2013, 41, 795-801.	10.1	28
41	Kosmotrope-like Hydration Behavior of Polyethylene Glycol from Microcalorimetry and Binding Isotherm Measurements. Langmuir, 2013, 29, 4259-4265.	3.5	18
42	Sensitive metal layer assisted guided mode resonance biosensor with a spectrum inversed response and strong asymmetric resonance field distribution. Optics Express, 2012, 20, 14584.	3.4	55
43	Use of a kinesin-cro Fusion Protein as the Nanoshuttle to Transport Specific DNA. Current Nanoscience, 2012, 8, 669-675.	1.2	0
44	Biofouling Resistance of Ultrafiltration Membranes Controlled by Surface Self-Assembled Coating with PEGylated Copolymers. Langmuir, 2012, 28, 1399-1407.	3.5	90
45	Use of Biotinylated Chitosan for Substrate-Mediated Gene Delivery. Bioconjugate Chemistry, 2012, 23, 1587-1599.	3.6	24
46	Bioadhesive Control of Plasma Proteins and Blood Cells from Umbilical Cord Blood onto the Interface Grafted with Zwitterionic Polymer Brushes. Langmuir, 2012, 28, 4309-4317.	3.5	50
47	Structural stability–chromatographic retention relationship on exenatide diastereomer separation. Analytical and Bioanalytical Chemistry, 2012, 404, 2437-2444.	3.7	3
48	Rapid analysis of abused drugs using nanostructured silicon surface assisted laser desorption/ionization mass spectrometry. Analyst, The, 2012, 137, 654-661.	3.5	28
49	Molecular dynamics simulation of the inducedâ€fit binding process of DNA aptamer and <scp>L</scp> â€argininamide. Biotechnology Journal, 2012, 7, 1367-1375.	3.5	25
50	Optimization of DNA-directed immobilization on mixed oligo(ethylene glycol) monolayers for immunodetection. Analytical Biochemistry, 2012, 423, 26-35.	2.4	18
51	Real-time monitoring DNA hybridization by guided resonant mode biosensor. , 2011, , .		1
52	Studies of the binding mechanism between aptamers and thrombin by circular dichroism, surface plasmon resonance and isothermal titration calorimetry. Colloids and Surfaces B: Biointerfaces, 2011, 88, 552-558.	5.0	102
53	Using isothermal titration calorimetry to real-time monitor the heat of metabolism: A case study using PC12 cells and Al $^2$ (1 $\hat{a}$ e"40). Colloids and Surfaces B: Biointerfaces, 2011, 83, 307-312.	5.0	2
54	A Guided Mode Resonance Aptasensor for Thrombin Detection. Sensors, 2011, 11, 8953-8965.	3.8	23

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55	Evaluation of Bioactivity and Effect of Polymeric Stabilizers During Heat Treatment for the Unfolded Fraction of Human Epidermal Growth Factor. Journal of Fiber Science and Technology, 2011, 67, 185-191.	0.0	O
56	Recent trends and some applications of isothermal titration calorimetry in biotechnology. Biotechnology Journal, 2010, 5, 85-98.	3.5	73
57	Daunomycin interaction with DNA: Microcalorimetric studies of the thermodynamics and binding mechanism. Biotechnology Journal, 2010, 5, 1069-1077.	3.5	8
58	Investigating the effects of sodium dodecyl sulfate on the aggregative behavior of hen egg-white lysozyme at acidic pH. Colloids and Surfaces B: Biointerfaces, 2010, 81, 141-151.	5.0	39
59	Peroxidase Activity of DNA Aptamer–Pt Complexes Prepared with Cisplatin. Journal of Biomaterials Science, Polymer Edition, 2010, 21, 67-82.	3.5	2
60	Tunable Bioadhesive Copolymer Hydrogels of Thermoresponsive Poly( <i>N</i> i>isopropyl acrylamide) Containing Zwitterionic Polysulfobetaine. Biomacromolecules, 2010, 11, 1101-1110.	5.4	121
61	Hemocompatible Mixed-Charge Copolymer Brushes of Pseudozwitterionic Surfaces Resistant to Nonspecific Plasma Protein Fouling. Langmuir, 2010, 26, 3522-3530.	3.5	137
62	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
63	Dynamic fluorescence imaging analysis to investigate the cholesterol recruitment in lipid monolayer during the interaction between β-amyloid (1–40) and lipid monolayers. Colloids and Surfaces B: Biointerfaces, 2009, 74, 59-66.	5.0	9
64	Permeation of blood cells from umbilical cord blood through surface-modified polyurethane foaming membranes. Journal of Membrane Science, 2009, 339, 184-188.	8.2	13
65	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
66	Sulfobetaine-grafted poly(vinylidene fluoride) ultrafiltration membranes exhibit excellent antifouling property. Journal of Membrane Science, 2009, 339, 151-159.	8.2	230
67	Dual-Thermoresponsive Phase Behavior of Blood Compatible Zwitterionic Copolymers Containing Nonionic Poly( <i>N</i> -isopropyl acrylamide). Biomacromolecules, 2009, 10, 2092-2100.	5.4	121
68	Thermodynamic basis of chiral recognition in a DNA aptamer. Physical Chemistry Chemical Physics, 2009, 11, 9744.	2.8	29
69	Preparation of poly(vinylidene fluoride) microfiltration membrane with uniform surface-copolymerized poly(ethylene glycol) methacrylate and improvement of blood compatibility. Journal of Membrane Science, 2008, 309, 165-174.	8.2	138
70	Examining the levels of ganglioside and cholesterol in cell membrane on attenuation the cytotoxicity of beta-amyloid peptide. Colloids and Surfaces B: Biointerfaces, 2008, 65, 172-177.	5.0	38
71	The investigation of recognition interaction between phenylboronate monolayer and glycated hemoglobin using surface plasmon resonance. Analytical Biochemistry, 2008, 375, 90-96.	2.4	63
72	A Highly Stable Nonbiofouling Surface with Well-Packed Grafted Zwitterionic Polysulfobetaine for Plasma Protein Repulsion. Langmuir, 2008, 24, 5453-5458.	3.5	213

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73	Molecular Dynamics Simulations To Investigate the Domain Swapping Mechanism of Human Cystatin C. Biotechnology Progress, 2008, 23, 577-584.	2.6	10
74	Microcalorimetrics Studies of the Thermodynamics and Binding Mechanism between <scp>I</scp> -Tyrosinamide and Aptamer. Journal of Physical Chemistry B, 2008, 112, 6665-6673.	2.6	65
75	Investigation of the Mechanism of $\hat{l}^2$ -Amyloid Fibril Formation by Kinetic and Thermodynamic Analyses. Langmuir, 2008, 24, 5802-5808.	3.5	48
76	Preparation of a DNA Aptamerâ^'Pt Complex and Its Use in the Colorimetric Sensing of Thrombin and Anti-Thrombin Antibodies. Analytical Chemistry, 2008, 80, 6580-6586.	6.5	75
77	Preservation of Hematopoietic Stem and Progenitor Cells from Umbilical Cord Blood Stored in a Surface Derivatized with Polymer Nanosegments. Biomacromolecules, 2008, 9, 634-639.	5.4	5
78	Molecular Dynamics Simulations of Human Cystatin C and Its L68Q Varient to Investigate the Domain Swapping Mechanism. Journal of Biomolecular Structure and Dynamics, 2007, 25, 135-144.	3.5	11
79	Novel Enzymatic Properties of DNAâ^Pt Complexes. Biomacromolecules, 2007, 8, 2684-2688.	5.4	11
80	Kinetics and enthalpy measurements of interaction between $\hat{l}^2$ -amyloid and liposomes by surface plasmon resonance and isothermal titration microcalorimetry. Colloids and Surfaces B: Biointerfaces, 2007, 58, 231-236.	5.0	49
81	Exploring the effect of cholesterol in lipid bilayer membrane on the melittin penetration mechanism. Analytical Biochemistry, 2007, 367, 49-55.	2.4	24
82	Characterization of the Interaction of Galectin-1 with Sodium Arsenite. Chemical Research in Toxicology, 2006, 19, 469-474.	3.3	17
83	Thermodynamics and mechanism of ssDNA hybridization below the melting temperature by isothermal titration calorimetry. Thermochimica Acta, 2005, 433, 83-87.	2.7	3
84	The effects of denaturants on protein conformation and behavior at air/solution interface. Colloids and Surfaces B: Biointerfaces, 2005, 41, 1-6.	5.0	13
85	Effects of solute–matrix interaction on monitoring the conformational changes of immobilized proteins by surface plasmon resonance sensor. Talanta, 2005, 67, 862-867.	5.5	8
86	An investigation into the influence of secondary structures on DNA hybridization using surface plasmon resonance biosensing. Chemical Physics Letters, 2004, 397, 429-434.	2.6	19
87	Microcalorimetric studies of the mechanism of interaction between designed peptides and hydrophobic adsorbents. Journal of Colloid and Interface Science, 2003, 263, 23-28.	9.4	14
88	Microcalorimetric investigation of the interaction of polysorbate surfactants with unilamellar phosphatidylcholines liposomes. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2003, 213, 7-14.	4.7	36
89	Effect of Temperature on Hydrophobic Interaction between Proteins and Hydrophobic Adsorbents: Studies by Isothermal Titration Calorimetry and the van't Hoff Equation. Langmuir, 2003, 19, 9395-9403.	3.5	132
90	Thermodynamic analysis of the interaction between proteins and solid surfaces: application to liquid chromatography. Journal of Molecular Recognition, 2002, 15, 55-93.	2.1	54

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91	Renaturation and Interaction of Ribonuclease A with AOT Surfactant in Reverse Micelles. Biotechnology Progress, 2002, 18, 1443-1446.	2.6	11
92	Microcalorimetric Studies on the Interaction Mechanism between Proteins and Hydrophobic Solid Surfaces in Hydrophobic Interaction Chromatography:Â Effects of Salts, Hydrophobicity of the Sorbent, and Structure of the Protein. Analytical Chemistry, 2001, 73, 3875-3883.	6.5	89
93	Microcalorimetric Study of the Effect of Hexa-histidine Tag and Denaturant on the Interaction Mechanism between Protein and Metal-Chelating Gel. Journal of Colloid and Interface Science, 2001, 238, 333-339.	9.4	7
94	Microcalorimetric studies of the interaction mechanisms between proteins and Q-Sepharose at pH near the isoelectric point (pl). Journal of Chromatography A, 2001, 912, 281-289.	3.7	80
95	Molecular recognition in imprinted polymers: thermodynamic investigation of analyte binding using microcalorimetry. Journal of Chromatography A, 2001, 923, 1-6.	3.7	43
96	Isothermal Titration Microcalorimetric Studies of the Effect of Temperature on Hydrophobic Interaction between Proteins and Hydrophobic Adsorbents. Journal of Colloid and Interface Science, 2000, 229, 600-606.	9.4	57
97	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. Journal of Chromatography A, 2000, 872, 37-47.	3.7	89
98	Determination of the Second Virial Coefficient of the Interaction between Microemulsion Droplets by Microcalorimetry. Langmuir, 2000, 16, 300-302.	3.5	14
99	Microcalorimetric Studies of the Interactions of Lysozyme with Immobilized Metal Ions: Effects of Ion, pH Value, and Salt Concentration. Journal of Colloid and Interface Science, 1999, 214, 373-379.	9.4	42
100	Protein separation by hydrophobic interaction chromatography using methacrylic block copolymers as displacers. Journal of Chromatography A, 1998, 824, 35-43.	3.7	10
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	The role of electroosmotic flow on in-vitro transdermal iontophoresis. Journal of Controlled Release, 1997, 43, 23-33.	9.9	14
103	Microcalorimetric Studies of the Interactions of Lysozyme with Immobilized Cu(II): Effects of pH Value and Salt Concentration. Journal of Colloid and Interface Science, 1997, 190, 49-54.	9.4	35
104	A method to predict the transdermal permeability of amino acids and dipeptides through porcine skin. Journal of Controlled Release, 1996, 38, 229-234.	9.9	14
105	Interactions of Imidazole and Proteins with Immobilized Cu(II) Ions: Effects of Structure, Salt Concentration, and pH in Affinity and Binding Capacity. Journal of Colloid and Interface Science, 1996, 180, 135-143.	9.4	62
106	Microcalorimetric Studies of the Interactions of Imidazole with Immobilized Cu(II): Effects of pH Value and Salt Concentration. Journal of Colloid and Interface Science, 1996, 183, 236-242.	9.4	26
107	The curing reaction of poly(ether-sulfone)-modified epoxy resin. Macromolecular Chemistry and Physics, 1995, 196, 3447-3458.	2.2	21
108	The sorption of lysozyme and ribonuclease onto ferromagnetic nickel powder 1. Adsorption of single components. Colloids and Surfaces B: Biointerfaces, 1995, 5, 25-34.	5.0	18

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109	Effect of Block Size and Sequence on the Micellization of ABC Triblock Methacrylic Polyampholytes. Macromolecules, 1995, 28, 8604-8611.	4.8	97
110	The Effects of Amino Acid Sequence on the Partition of Peptides in Aqueous Two-Phase System Journal of Chemical Engineering of Japan, 1994, 27, 688-690.	0.6	14