Tain-Ching Wen

List of Publications by Year
in descending order

82 papers	3,202 citations	304602 22 h-index	155592 55 g-index
83 all docs	83 docs citations	83 times ranked	5436 citing authors

#	Article	IF	Citations
1	CH₃NH₃PbI₃ Perovskite/Fullerene Planarâ€Heterojunction Hybrid Solar Cells. Advanced Materials, 2013, 25, 3727-3732.	11.1	1,352
2	NiO_x Electrode Interlayer and CH₃NH₂/CH₃NH₃PbBr₃ Interface Treatment to Markedly Advance Hybrid Perovskiteâ€Based Lightâ€Emitting Diodes. Advanced Materials, 2016, 28, 8687-8694.	11.1	147
3	An inverted polymer photovoltaic cell with increased air stability obtained by employing novel hole/electron collecting layers. Journal of Materials Chemistry, 2009, 19, 1643.	6.7	129
4	Influence of Molecular Geometry of Perylene Diimide Dimers and Polymers on Bulk Heterojunction Morphology Toward Highâ€Performance Nonfullerene Polymer Solar Cells. Advanced Functional Materials, 2015, 25, 5326-5332.	7.8	119
5	Manipulating the Hysteresis in Poly(vinyl alcohol)â€Dielectric Organic Fieldâ€Effect Transistors Toward Memory Elements. Advanced Functional Materials, 2013, 23, 4206-4214.	7.8	113
6	Spectroscopic Investigations of Poly(oxypropylene)glycol-Based Waterborne Polyurethane Doped with Lithium Perchlorate. Macromolecules, 1999, 32, 2712-2720.	2.2	77
7	Ultra-low fouling and high antibody loading zwitterionic hydrogel coatings for sensing and detection in complex media. Acta Biomaterialia, 2016, 40, 31-37.	4.1	77
8	Zwitterionic surface grafting of epoxylated sulfobetaine copolymers for the development of stealth biomaterial interfaces. Acta Biomaterialia, 2016, 40, 78-91.	4.1	71
9	Sulfonated poly(diphenylamine) as a novel hole-collecting layer in polymer photovoltaic cells. Journal of Materials Chemistry, 2008, 18, 4478.	6.7	53
10	High-performance hole-transporting layer-free conventional perovskite/fullerene heterojunction thin-film solar cells. Journal of Materials Chemistry A, 2015, 3, 9128-9132.	5.2	52
11	Applying Thermosettable Zwitterionic Copolymers as General Fouling-Resistant and Thermal-Tolerant Biomaterial Interfaces. ACS Applied Materials & Interfaces, 2015, 7, 10096-10107.	4.0	50
12	Organicâ€Oxide Cathode Buffer Layer in Fabricating Highâ€Performance Polymer Lightâ€Emitting Diodes. Advanced Functional Materials, 2008, 18, 3036-3042.	7.8	43
13	Morphology and ionic conductivity of thermoplastic polyurethane electrolytes. Journal of Applied Polymer Science, 2004, 91, 1154-1167.	1.3	37
14	Alkyl Chain-Grafted Poly(<scp>l</scp>-lysine) Vesicles with Tunable Molecular Assembly and Membrane Permeability. ACS Macro Letters, 2014, 3, 220-223.	2.3	37
15	Enhanced performance of polymer solar cells using solution-processed tetra-n-alkyl ammonium bromides as electron extraction layers. Journal of Materials Chemistry A, 2013, 1, 2582.	5.2	36
16	Core Dominated Surface Activity of Coreâ€“Shell Nanocatalysts on Methanol Electrooxidation. Journal of Physical Chemistry C, 2012, 116, 16969-16978.	1.5	32
17	Direct7Li NMR Spectral Evidence for Different Li+Local Environments in a Polyether Poly(urethane) Tj ETQq1 1 0.784314 rgBT /Overlo	2.2	30
18	Simultaneous synthesis of silver nanoparticles and poly(2,5-dimethoxyaniline) in poly(styrene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	2.5	29

#	Article	IF	Citations
19	Self-assembled tetraoctylammonium bromide as an electron-injection layer for cathode-independent high-efficiency polymer light-emitting diodes. Journal of Materials Chemistry, 2011, 21, 8715.	6.7	29
20	Single-Layered Hybrid DBPPV-CdSeâ€“ZnS Quantum-Dot Light-Emitting Diodes. IEEE Photonics Technology Letters, 2008, 20, 282-284.	1.3	28
21	The Roles of Poly(Ethylene Oxide) Electrode Buffers in Efficient Polymer Photovoltaics. Advanced Energy Materials, 2011, 1, 1192-1198.	10.2	28
22	An anti-fouling nanoplasmonic SERS substrate for trapping and releasing a cationic fluorescent tag from human blood solution. Nanoscale, 2017, 9, 2865-2874.	2.8	28
23	Magnetoconductance responses in organic charge-transfer-complex molecules. Applied Physics Letters, 2011, 99, .	1.5	23
24	Improvement of transparent organic thin film transistor performance by inserting a lithium fluoride buffer layer. Applied Physics Letters, 2008, 93, 043305.	1.5	22
25	Modulations of photoinduced magnetoconductance for polymer diodes. Applied Physics Letters, 2008, 92, 153303.	1.5	22
26	Benzo[k]fluoranthene-based linear acenes for efficient deep blue organic light-emitting devices. Journal of Materials Chemistry, 2012, 22, 11032.	6.7	22
27	Zwitterionic polypeptides bearing carboxybetaine and sulfobetaine: synthesis, self-assembly, and their interactions with proteins. Polymer Chemistry, 2018, 9, 1178-1189.	1.9	22
28	Selective manipulation of microparticles using polymer-based optically induced dielectrophoretic devices. Applied Physics Letters, 2010, 96, 113302.	1.5	21
29	Studies on Composite Electrolytes Composed of Thermoplastic Polyurethane and Polyacrylonitrile. Macromolecules, 2001, 34, 2958-2963.	2.2	20
30	Application of Statistical Experimental Strategies to H2O2Production on Au/Graphite in Alkaline Solution. Industrial & Engineering Chemistry Research, 1996, 35, 4767-4771.	1.8	18
31	Chemical Oxidative Polymerization and in situ Spectroelectrochemical Studies of a Sulfonated Aniline Derivative by UVâ^Visible Spectroscopy. Industrial & Engineering Chemistry Research, 2001, 40, 40-51.	1.8	18
32	Enhancement of Inverted Polymer Solar Cells Performances Using Cetyltrimethylammonium-Bromide Modified ZnO. Materials, 2018, 11, 378.	1.3	18
33	Ion-modulated electrical conduction in polyaniline-based field-effect transistors. Applied Physics Letters, 2008, 92, .	1.5	17
34	The surface-enhanced Raman scattering detection of N-nitrosodimethylamine and N-nitrosodiethylamine via gold nanorod arrays with a chemical linkage of zwitterionic copolymer. Nanoscale, 2020, 12, 1075-1082.	2.8	16
35	Blending poly(methyl methacrylate) and poly(styrene-co-acrylonitrile) as composite polymer electrolyte. Journal of Applied Polymer Science, 2001, 80, 1319-1328.	1.3	15
36	Characteristics of PPG-based thermoplastic polyurethane doped with lithium perchlorate. Journal of Applied Polymer Science, 2001, 82, 389-399.	1.3	15

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37	The metal interlayer in the charge generation layer of tandem organic light-emitting diodes. Journal of Applied Physics, 2013, 114, .	1.1	15
38	Surfactant-Enriched ZnO Surface via Solâ€“Gel Process for the Efficient Inverted Polymer Solar Cell. ACS Applied Materials & Interfaces, 2018, 10, 26805-26811.	4.0	15
39	Chemical grafting of polyaniline onto nylon66 fiber in different media. Journal of Applied Polymer Science, 2001, 79, 1283-1296.	1.3	14
40	Composite electrodes consisting of platinum particles and polyaniline nanowires as electrocatalysts for methanol oxidation. Polymer Composites, 2007, 28, 650-656.	2.3	14
41	Soft segmental effect of methylene bis(p-cyclohexyl isocyanate) based thermoplastic polyurethane impregnated with lithium perchlorate/propylene carbonate on ionic conductivity. Journal of Applied Polymer Science, 2001, 80, 935-942.	1.3	13
42	Solid polymer electrolytes I, preparation, characterization, and ionic conductivity of gelled polymer electrolytes based on novel crosslinked siloxane/poly(ethylene glycol) polymers. Journal of Polymer Science Part A, 2004, 42, 2051-2059.	2.5	13
43	Poly(ethylene oxide)-functionalized Al cathodes of tunable electron-injection capabilities for efficient polymer light-emitting diodes. Journal of Materials Chemistry, 2011, 21, 18840.	6.7	13
44	Ruthenium core-activated platinum monolayer shell high redox activity cathodic electrocatalysts for dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 5660.	5.2	12
45	In-situ spectroelectrochemical evidences for the copolymerization of o-toluidine with diphenylamine-4-sulphonic acid by UV-visible spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2002, 58, 167-177.	2.0	11
46	Interfacial engineering of ZnO surface modified with poly-vinylpyrrolidone and p-aminobenzoic acid for high-performance perovskite solar cells. Materials Chemistry and Physics, 2018, 219, 90-95.	2.0	11
47	Blending thermoplastic polyurethanes and poly(ethylene oxide) for composite electrolytes via a mixture design approach. Journal of Applied Polymer Science, 2000, 77, 680-692.	1.3	10
48	Robust SERS substrates with massive nanogaps derived from silver nanocubes self-assembled on massed silver mirror via 1,2-ethanedithiol monolayer as linkage and ultra-thin spacer. Materials Chemistry and Physics, 2014, 143, 1331-1337.	2.0	10
49	The size effect of silver nanocubes on gap-mode surface enhanced Raman scattering substrate. Journal of the Taiwan Institute of Chemical Engineers, 2016, 69, 146-150.	2.7	10
50	Performance improvement in transparent organic thin-film transistors with indium tin oxide/fullerene source/drain contact. Applied Physics Letters, 2009, 95, .	1.5	9
51	Enhancing the hole injection ability of indium tin oxide viaammonium salts in polymer light-emitting diodes. Journal of Materials Chemistry C, 2013, 1, 531-535.	2.7	9
52	Breakdown of the Bretherton law due to wallÂslippage. Journal of Fluid Mechanics, 2014, 741, 200-227.	1.4	9
53	Composite Electrolytes Comprising Polytetramethylene/Polypropylene Glycol-Based Waterborne Polyurethanes and Polyethylene Oxide via a Mixture Design Approach. Industrial & Engineering Chemistry Research, 2000, 39, 72-78.	1.8	8
54	Deposition of poly(diphenylamine-co-o-chloroaniline) by pulse potentiostatic method: Growth equation and characterization. Journal of Applied Polymer Science, 2003, 88, 389-397.	1.3	8

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55	Electrochemical Leveling Effect on Multi-Aromatic Monomer Films to Prepare Robust Conducting Polymer Nano- and Microfilms by Vapor Deposition Combined with Electropolymerization. Journal of Physical Chemistry C, 2007, 111, 9227-9234.	1.5	8
56	Significance of ions with an ordered arrangement for enhancing the electron injection/extraction in polymer optoelectronic devices. Journal of Materials Chemistry C, 2014, 2, 4805-4811.	2.7	8
57	Ternary electron injection layers for highly efficient polymer light emitting diodes. Journal of Materials Chemistry C, 2016, 4, 8559-8564.	2.7	8
58	Identifying the magnetoconductance responses by the induced charge transfer complex states in pentacene-based diodes. Applied Physics Letters, 2012, 101, 053307.	1.5	7
59	Magnetoconductance responses of triplet polaron pair charge reaction in hyperfine coupling regime. Applied Physics Letters, 2013, 103, 253304.	1.5	7
60	Role of self-assembled tetraoctylammonium bromide on various conjugated polymers in polymer light-emitting diodes. Journal of Materials Chemistry C, 2014, 2, 272-276.	2.7	7
61	Improvement in inverted polymer solar cells via 1-benzoyl-2-thiourea as surface modifier on sol-gel ZnO. Journal of the Taiwan Institute of Chemical Engineers, 2019, 96, 131-136.	2.7	7
62	Morphology and conductivity changes in a thermoplastic polyurethane-based copolymer consisting of different soft segments. Journal of Applied Polymer Science, 2001, 82, 1462-1473.	1.3	6
63	Ionic Conductivity and Morphological Study of a Thermoplastic Polyurethane Based Electrolyte Comprising of Mixed Soft Segments. Polymer Journal, 2000, 32, 921-931.	1.3	5
64	Role of anions in the polymerization of 2,5-dimethoxyaniline in the presence of poly(styrene sulfonic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	2.5	5
65	Extension of active region in crossbar-type polymer solar photovoltaics induced by highly conductive PEDOT:PSS buffer layer. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 702-705.	0.6	5
66	Electrophoretic stretching of tethered polymer chains by travelling-wave electric fields: tunable stretching, expedited coilâ€“stretch transition, and a new paradigm of dynamic molecular probing. Soft Matter, 2012, 8, 1977-1990.	1.2	5
67	Amideâ€Functionalized Small Molecules as Solutionâ€Processed Electron Injection Layers in Highly Efficient Polymer Lightâ€Emitting Diodes. Advanced Materials Interfaces, 2016, 3, 1500621.	1.9	5
68	Efficient inverted polymer solar cells via pyridine-based organic molecules as interfacial modification layer on sol-gel zinc oxide surface. Organic Electronics, 2018, 63, 93-97.	1.4	5
69	Chitosan production from Paecilomyces saturatus using three monosaccharides via mixture design. International Journal of Biological Macromolecules, 2019, 141, 307-312.	3.6	5
70	Solâ€“gel ZnO modified by organic dye molecules for efficient inverted polymer solar cells. Journal of the Taiwan Institute of Chemical Engineers, 2020, 107, 72-78.	2.7	5
71	A Ternary-Mixture-Based Counter Electrode for Quantum-Dot-Sensitized Solar Cells. ACS Applied Energy Materials, 2020, 3, 7121-7128.	2.5	5
72	Characterize and Retard the Impact of the Biasâ€Induced Mobile Ions in CH₃NH₃PbBr₃ Perovskite Lightâ€Emitting Diodes. Advanced Optical Materials, 2022, 10, .	3.6	5

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73	Application of Experimental Design to the Conductivity Optimization for Waterborne Polyurethane Electrolytes. Industrial & Engineering Chemistry Research, 1999, 38, 1415-1419.	1.8	4
74	Statistical Design Strategies To Optimize Properties in Emulsion Copolymerization of Methyl Methacrylate and Acrylonitrile. Industrial & Engineering Chemistry Research, 2001, 40, 4536-4542.	1.8	3
75	Plasma treatment on plastic substrates for liquid-phase-deposited SiO[sub 2]. Journal of Vacuum Science & Technology B, 2007, 25, 1635.	1.3	3
76	Plasmonic cavities derived from silver nanoparticles atop a massed silver surface for surface enhancement Raman scattering. RSC Advances, 2014, 4, 44457-44461.	1.7	3
77	Modulating the line shape of magnetoconductance by varying the charge injection in polymer light-emitting diodes. AIP Advances, 2018, 8, 025209.	0.6	3
78	Syntheses of New Azo Dyestuff Containing a Sydnone Ring. Journal of the Chinese Chemical Society, 1998, 45, 209-211.	0.8	2
79	Growth Behavior and Characterizationof Poly(o-toluidine-co-m-bromoaniline)by Cyclic Voltammetry. International Journal of Polymer Analysis and Characterization, 2003, 8, 1-27.	0.9	2
80	Soluble conducting poly(dipropargyl ether) formation studied using ultraviolet-visible spectroscopy. Journal of Materials Science, 2001, 36, 5289-5294.	1.7	1
81	Role of Solutionâ€Processable Polyethylenimine Electrode Interlayer in Fabricating Airâ€Stable Polymer Lightâ€Emitting Diodes. Israel Journal of Chemistry, 2014, 54, 935-941.	1.0	1
82	Fabrication and characterization of hybrid DBPPV-CdSe/ZnS quantum dot light-emitting diodes. , 2008, , .		0