Hsiao-Hua Yu

List of Publications by Year
in descending order

82 papers	4,402 citations	109311 35 h-index	106340 65 g-index
88 all docs	88 docs citations	88 times ranked	5788 citing authors

#	Article	IF	Citations
1	Dynamic Nuclear Polarization with Biradicals. Journal of the American Chemical Society, 2004, 126, 10844-10845.	13.7	301
2	Poly(3,4-ethylenedioxythiophene) (PEDOT) Nanobiointerfaces: Thin, Ultrasmooth, and Functionalized PEDOT Films with in Vitro and in Vivo Biocompatibility. Langmuir, 2008, 24, 8071-8077.	3.5	289
3	Ultrasensitive Pb²⁺ Detection by Glutathione-Capped Quantum Dots. Analytical Chemistry, 2007, 79, 9452-9458.	6.5	268
4	Capture and Stimulated Release of Circulating Tumor Cells on Polymerâ€Grafted Silicon Nanostructures. Advanced Materials, 2013, 25, 1547-1551.	21.0	245
5	High-frequency dynamic nuclear polarization using biradicals: A multifrequency EPR lineshape analysis. Journal of Chemical Physics, 2008, 128, 052302.	3.0	164
6	Functionalized Conducting Polymer Nanodots for Enhanced Cell Capturing: The Synergistic Effect of Capture Agents and Nanostructures. Advanced Materials, 2011, 23, 4788-4792.	21.0	164
7	Large enhancement in neurite outgrowth on a cell membrane-mimicking conducting polymer. Nature Communications, 2014, 5, 4523.	12.8	136
8	Purification of HCC-specific extracellular vesicles on nanosubstrates for early HCC detection by digital scoring. Nature Communications, 2020, 11, 4489.	12.8	134
9	Polydioxythiophene Nanodots, Nonowires, Nano-Networks, and Tubular Structures: The Effect of Functional Groups and Temperature in Template-Free Electropolymerization. ACS Nano, 2012, 6, 3018-3026.	14.6	133
10	Ultrathin Cellâ€Membraneâ€Mimic Phosphorylcholine Polymer Film Coating Enables Large Improvements for Inâ€...Vivo Electrochemical Detection. Angewandte Chemie - International Edition, 2017, 56, 11802-11806.	13.8	130
11	Carboxyfullerene Prevents Iron-Induced Oxidative Stress in Rat Brain. Journal of Neurochemistry, 2001, 72, 1634-1640.	3.9	126
12	Programming Thermoresponsiveness of NanoVelcro Substrates Enables Effective Purification of Circulating Tumor Cells in Lung Cancer Patients. ACS Nano, 2015, 9, 62-70.	14.6	118
13	A Proton-Doped Calix[4]arene-Based Conducting Polymer. Journal of the American Chemical Society, 2003, 125, 1142-1143.	13.7	106
14	NanoVelcro rare-cell assays for detection and characterization of circulating tumor cells. Advanced Drug Delivery Reviews, 2018, 125, 78-93.	13.7	89
15	Charge-Specific Interactions in Segmented Conducting Polymers: An Approach to Selective Ionoresistive Responses. Angewandte Chemie - International Edition, 2004, 43, 3700-3703.	13.8	83
16	Perfluoro-functionalized PEDOT films with controlled morphology as superhydrophobic coatings and biointerfaces with enhanced cell adhesion. Chemical Communications, 2010, 46, 4731.	4.1	82
17	Controlled photostability of luminescent nanocrystalline ZnO solution for selective detection of aldehydes. Chemical Communications, 2007, , 1406.	4.1	81
18	Ultrastable tetraphenyl-p-phenylenediamine-based covalent organic frameworks as platforms for high-performance electrochemical supercapacitors. Chemical Communications, 2019, 55, 14890-14893.	4.1	78

#	Article	IF	Citations
19	A Hollow Microtubular Triazineâ€•and Benzobisoxazoleâ€Based Covalent Organic Framework Presenting Spongeâ€Like Shells That Functions as a Highâ€Performance Supercapacitor. Chemistry - an Asian Journal, 2019, 14, 1429-1435.	3.3	76
20	Facile Syntheses of Dioxythiophene-Based Conjugated Polymers by Direct Câ€“H Arylation. Macromolecules, 2012, 45, 7783-7790.	4.8	75
21	Controlled Protein Absorption and Cell Adhesion on Polymer-Brush-Grafted Poly(3,4-ethylenedioxythiophene) Films. ACS Applied Materials & Interfaces, 2013, 5, 4536-4543.	8.0	72
22	Electricâ€Fieldâ€Assisted Growth of Functionalized Poly(3,4â€ethylenedioxythiophene) Nanowires for Labelâ€Free Protein Detection. Small, 2009, 5, 2611-2617.	10.0	68
23	Imprinted NanoVelcro Microchips for Isolation and Characterization of Circulating Fetal Trophoblasts: Toward Noninvasive Prenatal Diagnostics. ACS Nano, 2017, 11, 8167-8177.	14.6	68
24	S,S-Dimethyl Dithiocarbonate:â€‰ A Convenient Reagent for the Synthesis of Symmetrical and Unsymmetrical Ureas. Journal of Organic Chemistry, 1996, 61, 4175-4179.	3.2	67
25	Molecular or Nanoscale Structures? The Deciding Factor of Surface Properties on Functionalized Poly(3,4â€ethylenedioxythiophene) Nanorod Arrays. Advanced Functional Materials, 2013, 23, 3212-3219.	14.9	67
26	Efficient Synthesis of 3,4-Ethylenedioxythiophene (EDOT)-Based Functional Ï€-Conjugated Molecules through Direct Câ€“H Bond Arylations. Organic Letters, 2011, 13, 4068-4071.	4.6	63
27	3D Bioelectronic Interface: Capturing Circulating Tumor Cells onto Conducting Polymerâ€Based Micro/Nanorod Arrays with Chemical and Topographical Control. Small, 2014, 10, 3012-3017.	10.0	61
28	Synthesis of [3â€¯+â€¯3] Î²-ketoenamine-tethered covalent organic frameworks (COFs) for high-performance supercapacitance and CO2 storage. Journal of the Taiwan Institute of Chemical Engineers, 2019, 103, 199-208.	5.3	57
29	Oligoethylene-Glycol-Functionalized Polyoxythiophenes for Cell Engineering: Syntheses, Characterizations, and Cell Compatibilities. ACS Applied Materials & Interfaces, 2012, 4, 680-686.	8.0	55
30	Trinity DNA Detection Platform by Ultrasmooth and Functionalized PEDOT Biointerfaces. ACS Applied Materials & Interfaces, 2009, 1, 1414-1419.	8.0	46
31	Integrated 3D conducting polymer-based bioelectronics for capture and release of circulating tumor cells. Journal of Materials Chemistry B, 2015, 3, 5103-5110.	5.8	46
32	A General Synthesis for PEDOTâ€Coated Nonconductive Materials and PEDOT Hollow Particles by Aqueous Chemical Polymerization. Small, 2008, 4, 2051-2058.	10.0	42
33	Conductivity Shift of Polyethylenedioxythiophenes in Aqueous Solutions from Side-Chain Charge Perturbation. Macromolecules, 2007, 40, 6025-6027.	4.8	39
34	Synthesis of 1,2,3,4â€Bisiminofullerene and 1,2,3,4â€Bis(triazolino)fullereneâ€”on the Mechanism of the Addition Reactions of Organic Azides to [60]Fullerene. Chemistry - A European Journal, 1997, 3, 744-748.	3.3	38
35	Glycan Stimulation Enables Purification of Prostate Cancer Circulating Tumor Cells on PEDOT NanoVelcro Chips for RNA Biomarker Detection. Advanced Healthcare Materials, 2018, 7, 1700701.	7.6	38
36	Ultrathin Cellâ€Membraneâ€Mimic Phosphorylcholine Polymer Film Coating Enables Large Improvements for Inâ€…Vivo Electrochemical Detection. Angewandte Chemie, 2017, 129, 11964-11968.	2.0	36

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37	Covalent chemistry on nanostructured substrates enables noninvasive quantification of gene rearrangements in circulating tumor cells. Science Advances, 2019, 5, eaav9186.	10.3	36
38	Conducting Polymersâ€“Thylakoid Hybrid Materials for Water Oxidation and Photoelectric Conversion. Advanced Electronic Materials, 2019, 5, 1800789.	5.1	36
39	Step-Economical Syntheses of Functional BODIPY-EDOT Ï€-Conjugated Materials through Direct Câ€“H Arylation. Organic Letters, 2015, 17, 3198-3201.	4.6	35
40	Magnetic PEDOT hollow capsules with single holes. Chemical Communications, 2009, , 2664.	4.1	32
41	Work function engineering of electrodes via electropolymerization of ethylenedioxythiophenes and its derivatives. Organic Electronics, 2008, 9, 859-863.	2.6	30
42	Sensitive Detection of Sweat Cortisol Using an Organic Electrochemical Transistor Featuring Nanostructured Poly(3,4-Ethylenedioxythiophene) Derivatives in the Channel Layer. Analytical Chemistry, 2022, 94, 7584-7593.	6.5	30
43	Molecular Actuatorsâ€”Designing Actuating Materials at the Molecular Level. IEEE Journal of Oceanic Engineering, 2004, 29, 692-695.	3.8	28
44	Controlled hydrogenation of aromatic compounds by platinum nanowire catalysts. RSC Advances, 2012, 2, 3477.	3.6	28
45	Dynamic Poly(3,4â€ethylenedioxythiophene)s Integrate Low Impedance with Redoxâ€Switchable Biofunction. Advanced Functional Materials, 2018, 28, 1703890.	14.9	27
46	Tunable, dynamic and electrically stimulated lectinâ€“carbohydrate recognition on a glycan-grafted conjugated polymer. Chemical Communications, 2012, 48, 6942.	4.1	26
47	High Density of Aligned Nanowire Treated with Polydopamine for Efficient Gene Silencing by siRNA According to Cell Membrane Perturbation. ACS Applied Materials & Interfaces, 2016, 8, 18693-18700.	8.0	26
48	Surface Engineering of Phenylboronic Acid-Functionalized Poly(3,4-ethylenedioxythiophene) for Fast Responsive and Sensitive Glucose Monitoring. ACS Applied Bio Materials, 2018, 1, 160-167.	4.6	26
49	Rapid construction of an effective antifouling layer on a Au surface via electrodeposition. Chemical Communications, 2014, 50, 6793-6796.	4.1	21
50	Electropolymerization of intercalator-grafted conducting polymer for direct and amplified DNA detection. Chemical Communications, 2011, 47, 1533-1535.	4.1	19
51	Organic Electrochemical Transistors/SERS-Active Hybrid Biosensors Featuring Gold Nanoparticles Immobilized on Thiol-Functionalized PEDOT Films. Frontiers in Chemistry, 2019, 7, 281.	3.6	19
52	Electropolymerized Conjugated Polyelectrolytes with Tunable Work Function and Hydrophobicity as an Anode Buffer in Organic Optoelectronics. ACS Applied Materials & Interfaces, 2012, 4, 3396-3404.	8.0	16
53	Tunable Protein/Cell Binding and Interaction with Neurite Outgrowth of Low-Impedance Zwitterionic PEDOTs. ACS Applied Materials & Interfaces, 2020, 12, 12362-12372.	8.0	16
54	Coupling Lipid Labeling and Click Chemistry Enables Isolation of Extracellular Vesicles for Noninvasive Detection of Oncogenic Gene Alterations. Advanced Science, 2022, 9, e2105853.	11.2	15

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55	Electropolymerization and characterization of COOH-functionalized poly(3,4-ethylenedioxythiophene): Ionic exchanges. Electrochimica Acta, 2011, 56, 10238-10245.	5.2	13
56	Inexpensive Synthesis of Poly(Ethylenedioxythiopheneâ€Sulfobetaine) Films with High Bioâ€Antifouling Ability. Journal of the Chinese Chemical Society, 2018, 65, 149-155.	1.4	12
57	Direct Câ€“H Arylation Polymerization to form Anionic Water-Soluble Poly(3,4-ethylenedioxythiophenes) with Higher Yields and Molecular Weights. Synlett, 2018, 29, 2660-2668.	1.8	12
58	Synthesis of MOF525/PEDOT Composites as Microelectrodes for Electrochemical Sensing of Dopamine. Polymers, 2020, 12, 1976.	4.5	12
59	Cross-Linked Fluorescent Supramolecular Nanoparticles as Finite Tattoo Pigments with Controllable Intradermal Retention Times. ACS Nano, 2017, 11, 153-162.	14.6	11
60	In vitro selection of electrochemical peptide probes using bioorthogonal tRNA for influenza virus detection. Chemical Communications, 2018, 54, 5201-5204.	4.1	11
61	Photostable and luminescent ZnO films: synthesis and application as fluorescence resonance energy transfer donors. Chemical Communications, 2008, , 4912.	4.1	10
62	Direct Aqueous Dispersion of Carbon Nanotubes Using Nanoparticle-Formed Fullerenes and Self-Assembled Formation of p/n Heterojunctions with Polythiophene. ACS Omega, 2017, 2, 1625-1632.	3.5	10
63	Electrically Responsive, Nanopatterned Surfaces for Triggered Delivery of Biologically Active Molecules into Cells. ACS Applied Materials & Interfaces, 2019, 11, 1201-1208.	8.0	10
64	Functionalized Conducting Polymer Nanoâ€Networks from Controlled Oxidation Polymerization toward Cell Engineering. Advanced Engineering Materials, 2011, 13, B423.	3.5	8
65	Low-Molecular-Weight Polyethyleneimine Grafted Polythiophene for Efficient siRNA Delivery. BioMed Research International, 2015, 2015, 1-9.	1.9	8
66	Palladium-catalyzed direct Câ€“H arylations of dioxythiophenes bearing reactive functional groups: a step-economical approach for functional Ï€-conjugated oligoarenes. Organic and Biomolecular Chemistry, 2015, 13, 8505-8511.	2.8	8
67	Self-Cleaning Cotton Obtained after Grafting Thermoresponsive Poly(N-vinylcaprolactam) through Surface-Initiated Atom Transfer Radical Polymerization. Polymers, 2020, 12, 2920.	4.5	7
68	Hybrid â€œKill and Releaseâ€•Antibacterial Cellulose Papers Obtained via Surface-Initiated Atom Transfer Radical Polymerization. ACS Applied Bio Materials, 2021, 4, 7893-7902.	4.6	7
69	Nanoscale Analysis of a Functionalized Polythiophene Surface by Adhesion Mapping. Analytical Chemistry, 2014, 86, 6865-6871.	6.5	6
70	In vitro selection of peptide aptamers using a ribosome display for a conducting polymer. Journal of Bioscience and Bioengineering, 2014, 117, 501-503.	2.2	6
71	Cell Capture: Capture and Stimulated Release of Circulating Tumor Cells on Polymerâ€Grafted Silicon Nanostructures (Adv. Mater. 11/2013). Advanced Materials, 2013, 25, 1514-1514.	21.0	4
72	Deprotonation-Induced Conductivity Shift of Polyethylenedioxythiophenes in Aqueous Solutions: The Effects of Side-Chain Length and Polymer Composition. Polymers, 2019, 11, 659.	4.5	4

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73	Molecular and nano structures of chiral PEDOT derivatives influence the enantiorecognition of biomolecules. In silico analysis of chiral recognition. Analyst, The, 2021, 146, 7118-7125.	3.5	4
74	Nanoscale analysis of functionalized polythiophene surfaces: the effects of electropolymerization methods and thermal treatment. RSC Advances, 2014, 4, 62666-62672.	3.6	3
75	RNA Biomarkers: Glycan Stimulation Enables Purification of Prostate Cancer Circulating Tumor Cells on PEDOT NanoVelcro Chips for RNA Biomarker Detection (Adv. Healthcare Mater. 3/2018). Advanced Healthcare Materials, 2018, 7, 1870013.	7.6	3
76	DNA Detection Using Functionalized Conducting Polymers. Methods in Molecular Biology, 2011, 751, 437-452.	0.9	3
77	Mechanotactic Activation of TGFâ€Î²2 by PEDOT Artificial Microenvironments Triggers Epithelial to Mesenchymal Transition. Advanced Biology, 2020, 4, 1900165.	3.0	2
78	Perfluoro-Functionalized Conducting Polymers Enhance Electrocatalytic Oxygen Reduction. ACS Applied Energy Materials, 2020, 3, 1171-1180.	5.1	2
79	Layerâ€byâ€layer assembly and electrically controlled disassembly of waterâ€soluble Poly(3,4â€ethylenedioxythiophene) derivatives for bioelectronic interface. Journal of the Chinese Chemical Society, 2020, 67, 1602-1610.	1.4	1
80	Conducting polymer nanobiointerfaces for biosensing and cell engineering. , 2010, , .		0
81	Guest Editorial: Journal of the Chinese Chemical Society 1/2018. Journal of the Chinese Chemical Society, 2018, 65, 3-4.	1.4	0
82	Abstract 3780: Bio-competition-based smart NanoVelcro Chip for isolation and gene expression analysis of circulating tumor cells from prostate cancer patients. , 2017, , .		0