

# Pu-Wei Wu

## List of Publications by Year in descending order

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112  
papers

1,737  
citations

257450

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377865

34  
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112  
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112  
docs citations

112  
times ranked

2115  
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-healable and anti-freezing ion conducting hydrogel-based artificial bioelectronic tongue sensing toward astringent and bitter tastes. <i>Biosensors and Bioelectronics</i> , 2022, 198, 113811.	10.1	28
2	Flexible Optogenetic Transducer Device for Remote Neuron Modulation Using Highly Upconversion-Efficient Dendrite-Like Gold Inverse Opaline Structure. <i>Advanced Healthcare Materials</i> , 2022, 11, e2101310.	7.6	9
3	Highly Ordered Polymer Nanostructures via Solvent On-Film Annealing for Surface-Enhanced Raman Scattering. <i>Langmuir</i> , 2022, 38, 801-809.	3.5	4
4	Temperature-Dependent Reaction Pathways in FeS <sub>2</sub> : Reversibility and the Electrochemical Formation of Fe <sub>3</sub> S <sub>4</sub> . <i>Chemistry of Materials</i> , 2022, 34, 5422-5432.	6.7	7
5	A biocompatible open system Na-doped IrO <sub>x</sub> (OH) <sub>y</sub> energy storage device with enhanced charge storage properties and long lifetime. <i>Journal of Materials Chemistry A</i> , 2022, 10, 14479-14487.	10.3	4
6	A flexible IrO <sub>2</sub> membrane for pH sensing. <i>Scientific Reports</i> , 2022, 12, .	3.3	6
7	Templated fabrication of three-dimensional ordered macroporous Cu <sub>2</sub> O/Ni structure for glucose sensing. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2021, 119, 277-285.	5.3	7
8	Formation of RuO <sub>2</sub> thin film using dopamine as a reducing, chelating, and adhesive agent simultaneously. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2021, 119, 196-203.	5.3	9
9	An interfacial wetting water based hydrogel electrolyte for high-voltage flexible quasi solid-state supercapacitors. <i>Energy Storage Materials</i> , 2021, 38, 489-498.	18.0	28
10	A flexible bioelectrode based on IrO <sub>2</sub> -coated metallized polypropylene micromembrane. <i>Ceramics International</i> , 2021, 47, 32554-32561.	4.8	12
11	Fabrication of biocompatible and conductive polypropylene micromembrane as a soft and porous electrode. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2021, 129, 381-388.	5.3	6
12	Honeycomb-type retinal device using chemically derived iridium oxide biointerfaces. <i>AIP Advances</i> , 2021, 11, .	1.3	4
13	A conductive silver membrane for electrochemical detection of free chlorine in aqueous solution. <i>Sensors and Actuators B: Chemical</i> , 2021, 348, 130724.	7.8	5
14	Fabrication of composite Cu <sub>2</sub> O/Au inverse opals for enhanced detection of hydrogen peroxide: Synergy effect from structure and sensing mechanism. <i>Journal of Alloys and Compounds</i> , 2021, 886, 161243.	5.5	7
15	Electrophoretic fabrication of a robust chitosan/polyethylene glycol/polydopamine composite film for UV-shielding application. <i>Carbohydrate Polymers</i> , 2021, 273, 118560.	10.2	19
16	Characterization of pH Sensors Based on Iridium Oxide and Gold Encapsulated Polypropylene Membranes. , 2021, , .		2
17	Fabrication of TiO <sub>2</sub> -coated nanostructured Ni foams for improved mechanical properties. <i>Ceramics International</i> , 2020, 46, 3968-3975.	4.8	2
18	Synthesis of polystyrene@polypyrrole-COOH@Ag (core@shell@shell) microspheres for potential application in anisotropic conductive paste. <i>Materials Letters</i> , 2020, 263, 127239.	2.6	2

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19	Composite NiCoO <sub>2</sub> /NiCo <sub>2</sub> O <sub>4</sub> inverse opals for the oxygen evolution reaction in an alkaline electrolyte. <i>Catalysis Science and Technology</i> , 2020, 10, 7566-7580.	4.1	6
20	A vertically integrated ZnO-based hydrogen sensor with hierarchical bi-layered inverse opals. <i>Sensors and Actuators B: Chemical</i> , 2020, 325, 128779.	7.8	24
21	Formation of Free-Standing Inverse Opals with Gradient Pores. <i>Nanomaterials</i> , 2020, 10, 1923.	4.1	5
22	Leveraging the water electrolysis reaction in bipolar electrophoresis to form robust and defectless chitosan films. <i>Carbohydrate Polymers</i> , 2020, 250, 116912.	10.2	4
23	Green Synthesis of Ni@PEDOT and Ni@PEDOT/Au (Core@Shell) Inverse Opals for Simultaneous Detection of Ascorbic Acid, Dopamine, and Uric Acid. <i>Nanomaterials</i> , 2020, 10, 1722.	4.1	15
24	A Strategy to Synthesize Ultrahigh-N-Doped Hierarchical Carbons via Induced $\beta$ -Sheet from Silk Fibroin by <i>In Situ</i> Electrogelation/Electropolymerization. <i>ACS Applied Energy Materials</i> , 2020, 3, 3596-3608.	5.1	3
25	Synthesis of IrO <sub>2</sub> decorated core-shell PS@PPyNH <sub>2</sub> microspheres for bio-interface application. <i>Nanotechnology</i> , 2020, 31, 375605.	2.6	3
26	An Inkjet Printing Technique for Scalable Microfabrication of Graphene-Based Sensor Components. <i>IEEE Access</i> , 2020, 8, 79338-79346.	4.2	5
27	Facile Synthesis of Co <sub>3</sub> O <sub>4</sub> @CoO@Co Gradient Core@Shell Nanoparticles and Their Applications for Oxygen Evolution and Reduction in Alkaline Electrolytes. <i>Materials</i> , 2020, 13, 2703.	2.9	13
28	Polydopamine and Its Composite Film as an Adhesion Layer for Cu Electroless Deposition on SiO <sub>2</sub> . <i>Journal of the Electrochemical Society</i> , 2020, 167, 042507.	2.9	18
29	Pt deposition on Ni-based superalloy via a combination of galvanic displacement reaction and chemical reduction. <i>Materials Chemistry and Physics</i> , 2020, 254, 123475.	4.0	2
30	Synthesis and characterization of iridium oxide thin film via a pre-coordination step for bio-stimulating electrode application. <i>Ceramics International</i> , 2020, 46, 18648-18655.	4.8	15
31	Conformal Electrodeposition of Co-Ni to Improve the Mechanical Properties of Three-Dimensional Ordered Macroporous Ni Films. <i>Journal of the Electrochemical Society</i> , 2020, 167, 022505.	2.9	3
32	Conformal Deposition of RuO <sub>2</sub> on Cu via a Galvanic Cementation Reaction. <i>Journal of the Electrochemical Society</i> , 2019, 166, D476-D482.	2.9	1
33	Editors' Choice Interface Engineering Strategy Utilizing Electrochemical ALD of Cu-Zn for Enabling Metallization of Sub-10 nm Semiconductor Device Nodes. <i>ECS Journal of Solid State Science and Technology</i> , 2019, 8, P516-P521.	1.8	13
34	Development of IrO <sub>2</sub> bio-ink for ink-jet printing application. <i>Ceramics International</i> , 2019, 45, 16645-16650.	4.8	3
35	High throughput fabrication of large-area colloidal crystals via a two-stage electrophoretic deposition method. <i>Electrochimica Acta</i> , 2019, 317, 52-60.	5.2	19
36	Combination of electrophoresis and electro-flocculation for the formation of adhering IrO <sub>2</sub> pH sensing films. <i>Electrochimica Acta</i> , 2019, 312, 291-298.	5.2	8

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37	Designing the Charge Storage Properties of Li <sup>+</sup> -Exchanged Sodium Vanadium Fluorophosphate for Powering Implantable Biomedical Devices. <i>Advanced Energy Materials</i> , 2019, 9, 1900226.	19.5	23
38	Controlled synthesis of uniform hollow polypyrrole microcapsules by a cosolvent approach. <i>SN Applied Sciences</i> , 2019, 1, 1.	2.9	4
39	A Combined Process Of Silicon Shadow Masking And Inkjet Printing (SSMP) For Making Graphene Oxide And Reduced Graphene Oxide Microstructures For Selective Cell Culturing Applications. , 2019, , .		1
40	Conformal deposition of Pt on titania nanotubes to produce a bio-electrode for neuro-stimulating applications. <i>Electrochemistry Communications</i> , 2018, 88, 61-66.	4.7	8
41	Pulse electrodeposition of copper-manganese alloy in deep eutectic solvent. <i>Journal of Alloys and Compounds</i> , 2018, 742, 38-44.	5.5	11
42	Mechanical properties of three-dimensional ordered macroporous Ni foam. <i>Materials Letters</i> , 2018, 215, 152-156.	2.6	9
43	Growth and characterization of high quality CIGS films using novel precursors stacked and surface sulfurization process. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 11429-11438.	2.2	9
44	Core-Shell Pd <sub>9</sub> /Ru@Pt on Functionalized Graphene for Methanol Electrooxidation. <i>Journal of the Electrochemical Society</i> , 2018, 165, H365-H373.	2.9	5
45	Formation of Cu/MnO <sub>x</sub> composite film by concurrent electroplating and electrophoresis in an organic solvent. <i>Thin Solid Films</i> , 2018, 660, 585-589.	1.8	1
46	Highly sensitive/selective 3D nanostructured immunoparticle-based interface on a multichannel sensor array for detecting amyloid-beta in Alzheimer's disease. <i>Theranostics</i> , 2018, 8, 4210-4225.	10.0	27
47	Combination of microspheres and sol-gel electrophoresis for the formation of large-area ordered macroporous SiO <sub>2</sub> . <i>Electrochemistry Communications</i> , 2017, 85, 6-10.	4.7	17
48	A cost-effective fabrication of iridium oxide films as biocompatible electrostimulation electrodes for neural interface applications. <i>Journal of Alloys and Compounds</i> , 2017, 692, 339-345.	5.5	38
49	A combined electrochemical route to fabricate large-area and free-standing inverse opaline film. <i>Electrochemistry Communications</i> , 2016, 68, 32-35.	4.7	17
50	Free-standing Au inverse opals for enhanced glucose sensing. <i>Journal of Alloys and Compounds</i> , 2016, 684, 453-460.	5.5	16
51	Characteristic improvement of inkjet printed Ag interconnects using tape on-off and mirror-reaction processes. , 2015, , .		1
52	DFT Study of Oxygen Reduction Reaction on Os/Pt Core-Shell Catalysts Validated by Electrochemical Experiment. <i>ACS Catalysis</i> , 2015, 5, 1568-1580.	11.2	70
53	Chemical stability and electrical conductivity of BaCe <sub>0.4</sub> Zr <sub>0.4</sub> Gd <sub>0.1</sub> Dy <sub>0.1</sub> O <sub>3</sub> perovskite. <i>Ceramics International</i> , 2015, 41, 10856-10860.	4.8	3
54	A Combined Process of Liftoff and Printing for the Fabrication of Scalable Inkjet Printed Microstructures on a Flexible Substrate. <i>IEEE Transactions on Electron Devices</i> , 2015, 62, 1248-1254.	3.0	10

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55	Palladium based cermet composite for hydrogen separation at elevated temperature. Journal of Power Sources, 2015, 274, 965-970.	7.8	18
56	Synthesis of Pd 9 Ru@Pt nanoparticles for oxygen reduction reaction in acidic electrolytes. Journal of Power Sources, 2015, 277, 116-123.	7.8	29
57	Structural characterizations of PtRu nanoparticles by galvanostatic pulse electrodeposition. Journal of Alloys and Compounds, 2014, 583, 170-175.	5.5	8
58	Using decomposed Nafion ionomers to anchor Pt nanoparticles and improve their durability during methanol electro-oxidation. Journal of Power Sources, 2014, 245, 315-323.	7.8	12
59	Dealloyed Pt <sub>2</sub> O <sub>3</sub> nanoparticles for enhanced oxygen reduction reaction in acidic electrolytes. Applied Catalysis B: Environmental, 2014, 150-151, 636-646.	20.2	13
60	Density Functional Theory Study of Pt <sub>3</sub> M Alloy Surface Segregation with Adsorbed O/OH and Pt <sub>3</sub> O <sub>s</sub> as Catalysts for Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2014, 118, 26703-26712.	3.1	37
61	Chemical bath deposition of IrO <sub>2</sub> films on ITO substrate. Ceramics International, 2014, 40, 14983-14990.	4.8	29
62	Synthesis of Petal-Like Carbon Nanocapsule@MnO <sub>2</sub> Core-Shell Particles and Their Application in Supercapacitors. Journal of the Electrochemical Society, 2014, 161, H598-H605.	2.9	12
63	Structural characterization of colloidal crystals and inverse opals using transmission X-ray microscopy. Journal of Colloid and Interface Science, 2014, 426, 199-205.	9.4	14
64	High-yield water-based synthesis of truncated silver nanocubes. Journal of Alloys and Compounds, 2014, 586, 507-511.	5.5	31
65	Structural characterizations of Cu <sub>3</sub> Pt electrocatalyst featuring Pt-rich surface layers synthesized via mechanical alloying and selective dissolution routes. Journal of Alloys and Compounds, 2013, 552, 329-335.	5.5	4
66	Synthesis of large surface area carbon xerogels for electrochemical double layer capacitors. Journal of Power Sources, 2013, 223, 147-154.	7.8	37
67	Electroless deposition of Ru films on Si substrates with surface pretreatments. Thin Solid Films, 2013, 529, 426-429.	1.8	7
68	Surface modification of commercial PtRu nanoparticles for methanol electro-oxidation. Journal of Power Sources, 2013, 240, 122-130.	7.8	18
69	Electrowetting of Superhydrophobic ZnO Inverse Opals. Journal of the Electrochemical Society, 2011, 158, P93.	2.9	27
70	Electrochemical degradation of Nafion ionomer to functionalize carbon support for methanol electro-oxidation. Journal of Power Sources, 2011, 196, 8225-8233.	7.8	10
71	A facile route to prepare PdPt alloys for ethanol electro-oxidation in alkaline electrolyte. Materials Letters, 2011, 65, 215-218.	2.6	23
72	Displacement reaction of Pt on carbon-supported Ru nanoparticles in hexachloroplatinic acids. Applied Catalysis B: Environmental, 2011, 103, 116-127.	20.2	29

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73	Facile Electrochemical Fabrication of Large-Area ZnO Inverse Opals with Reduced Defects. Journal of the Electrochemical Society, 2011, 158, P45.	2.9	11
74	Effect of Crystallinity on the Optical Reflectance of Cylindrical Colloidal Crystals. Journal of the Electrochemical Society, 2011, 158, P37.	2.9	16
75	Electroless Deposition of Ru Films Via an Oxidative-Reductive Mechanism. Journal of the Electrochemical Society, 2011, 158, D463.	2.9	15
76	Evaluation on carbon nanocapsules for supercapacitors using a titanium cavity electrode. Journal of Power Sources, 2010, 195, 5122-5129.	7.8	15
77	Effect of annealing on the electrodeposited Cu <sub>2</sub> O films for photoelectrochemical hydrogen generation. Thin Solid Films, 2010, 518, 7191-7195.	1.8	30
78	Preparation and characterization of ruthenium films via an electroless deposition route. Thin Solid Films, 2010, 518, 7245-7248.	1.8	11
79	Rapid Fabrication of Cylindrical Colloidal Crystals and Their Inverse Opals. Journal of the Electrochemical Society, 2010, 157, P23.	2.9	24
80	Templated fabrication of nanostructured Ni brush for hydrogen evolution reaction. Journal of Materials Research, 2010, 25, 2001-2007.	2.6	12
81	Rapid Galvanostatic Determination on Levelers for Superfilling in Cu Electroplating. Electrochemical and Solid-State Letters, 2010, 13, D7.	2.2	29
82	Ni Inverse Opals for Water Electrolysis in an Alkaline Electrolyte. Journal of the Electrochemical Society, 2010, 157, P18.	2.9	41
83	Synthesis and Characterization of La <sub>0.6</sub> Ca <sub>0.4</sub> Co <sub>0.8</sub> Ru <sub>0.2</sub> O <sub>3</sub> for Oxygen Reduction Reaction in an Alkaline Electrolyte. Journal of the Electrochemical Society, 2010, 157, B900.	2.9	9
84	Facile Surface Functionalization of Carbon/Nafion for Enhancement of Methanol Electro-Oxidation. ECS Transactions, 2010, 33, 2017-2026.	0.5	3
85	Pulse Electrodepositions of PtRu on Large-Area Carbon Nanotubes for Enhancement of Methanol Electro-Oxidation. Journal of the Electrochemical Society, 2010, 157, B39.	2.9	12
86	Electroplating of Sn-2.5Ag solders as 20 μm pitch micro-bumps. , 2010, , .		0
87	Galvanostatic electrodeposition of SnCu <sub>2</sub> Ni <sub>1</sub> as a lead-free solder. , 2010, , .		0
88	Fabrication of Tri-layered Structure for Solid Oxide Fuel Cells by Electrophetic Depositions. ECS Transactions, 2009, 25, 643-648.	0.5	1
89	Displacement Reaction in Pulse Current Deposition of PtRu for Methanol Electro-Oxidation. Journal of the Electrochemical Society, 2009, 156, B735.	2.9	12
90	Electrochemical reduction of CO <sub>2</sub> by Cu <sub>2</sub> O-catalyzed carbon clothes. Materials Letters, 2009, 63, 1001-1003.	2.6	101

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91	A facile approach to fabricate Ni inverse opals at controlled thickness. <i>Materials Letters</i> , 2009, 63, 2393-2395.	2.6	13
92	Fabrication of Ni nanowires for hydrogen evolution reaction in a neutral electrolyte. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 6596-6602.	7.1	57
93	Synthesis of La <sub>0.6</sub> Ca <sub>0.4</sub> Co <sub>0.8</sub> Ir <sub>0.2</sub> O <sub>3</sub> perovskite for bi-functional catalysis in an alkaline electrolyte. <i>Journal of Power Sources</i> , 2009, 189, 1003-1007.	7.8	33
94	Effect of platinum present in multi-element nanoparticles on methanol oxidation. <i>Journal of Alloys and Compounds</i> , 2009, 478, 868-871.	5.5	48
95	Effect of anodic dissolution in multi-element nanoparticles on methanol electro-oxidation. <i>Journal of Alloys and Compounds</i> , 2009, 486, 738-742.	5.5	3
96	Gravity-Assisted Seeding Control for 1-D Material Growth. <i>IEEE Nanotechnology Magazine</i> , 2009, 8, 427-430.	2.0	1
97	Improved electrochemical performances by carbon nanocapsules as an electrocatalyst support for direct methanol fuel cells. <i>Diamond and Related Materials</i> , 2009, 18, 501-504.	3.9	10
98	Carbon nanocapsules as an electrocatalyst support for the oxygen reduction reaction in alkaline electrolyte. <i>Journal of Applied Electrochemistry</i> , 2008, 38, 507-514.	2.9	10
99	Effect of Polyethylene Glycol Additives on Pulse Electroplating of SnAg Solder. <i>Journal of Electronic Materials</i> , 2008, 37, 224-230.	2.2	15
100	Enhancement of bifunctional catalysis by Ir doping of La <sub>0.6</sub> Ca <sub>0.4</sub> CoO <sub>3</sub> perovskites. <i>Materials Letters</i> , 2008, 62, 4220-4222.	2.6	11
101	Fabrication of Large-Area Colloidal Crystals by Electrophoretic Deposition in Vertical Arrangement. <i>Electrochemical and Solid-State Letters</i> , 2008, 11, P20.	2.2	29
102	Conformal Deposition of Ni <sup>2+</sup> /P on Anodic Aluminum Oxide Template. <i>Electrochemical and Solid-State Letters</i> , 2008, 11, D1.	2.2	6
103	Mechanical Alloying Preparation of La <sub>0.6</sub> Ca <sub>0.4</sub> Co <sub>0.25</sub> O <sub>3.5</sub> as a Bifunctional Electrocatalyst in Alkaline Electrolyte. <i>Electrochemical and Solid-State Letters</i> , 2008, 11, B47.	2.2	13
104	Sputter Deposition of Multi-Element Nanoparticles as Electrocatalysts for Methanol Oxidation. <i>Japanese Journal of Applied Physics</i> , 2008, 47, 5755.	1.5	46
105	Fabrication of ordered Ta <sub>2</sub> O <sub>5</sub> nanodots using an anodic aluminum oxide template on Si substrate. <i>Journal of Materials Research</i> , 2007, 22, 1064-1071.	2.6	4
106	Synthesis and Characterization of Pt-Carbon Nano Capsule Electrocatalyst for Hydrogen Oxidation Reaction. <i>ECS Transactions</i> , 2007, 11, 317-324.	0.5	0
107	Silver-Carbon Nanocapsule Electrocatalyst for Oxygen Reduction Reaction. <i>Journal of the Electrochemical Society</i> , 2007, 154, B1059.	2.9	29
108	Fabrication of Anodic Aluminum Oxide Film on Large-Area Glass Substrate. <i>Electrochemical and Solid-State Letters</i> , 2007, 10, C69.	2.2	9

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109	Controlling the Spontaneous Precipitation of Silver Nanoparticles in Sol-Gel Materials. Journal of Sol-Gel Science and Technology, 2000, 19, 249-252.	2.4	41
110	Solution processing approaches for solid electrolytes and electrode materials. Journal of Materials Research, 1998, 13, 866-874.	2.6	13
111	A Sol-Gel Solid Electrolyte with High Lithium Ion Conductivity. Chemistry of Materials, 1997, 9, 1004-1011.	6.7	54
112	Thermally Activated Conductivity of Hydrogenated Amorphous Carbon Films Induced by Argon Plasma Bombardment. Japanese Journal of Applied Physics, 1993, 32, L539-L542.	1.5	1