

# Tsutomu Shinagawa

## List of Publications by Year in descending order

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106  
papers

1,856  
citations

304701

22  
h-index

289230

40  
g-index

108  
all docs

108  
docs citations

108  
times ranked

2218  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrochemically constructed p-Cu <sub>2</sub> O/n-ZnO heterojunction diode for photovoltaic device. Journal Physics D: Applied Physics, 2007, 40, 3326-3329.	2.8	314
2	Structural and Electrical Characterizations of Electrodeposited p-Type Semiconductor Cu <sub>2</sub> O Films. Journal of the Electrochemical Society, 2005, 152, C179.	2.9	146
3	Direct Electrodeposition of 1.46 eV Bandgap Silver(I) Oxide Semiconductor Films by Electrogenenerated Acid. Chemistry of Materials, 2008, 20, 1254-1256.	6.7	108
4	Electrodeposition of 1.4-eV-Bandgap p-Copper (II) Oxide Film With Excellent Photoactivity. Journal of the Electrochemical Society, 2011, 158, D578.	2.9	71
5	Photochemical Construction of Photovoltaic Device Composed of p-Copper(I) Oxide and n-Zinc Oxide. Journal of the Electrochemical Society, 2006, 153, C668.	2.9	59
6	Preparation of Core/Shell and Hollow Nanostructures of Cerium Oxide by Electrodeposition on a Polystyrene Sphere Template. ACS Applied Materials & Interfaces, 2009, 1, 1070-1075.	8.0	50
7	Solution-processed high-haze ZnO pyramidal textures directly grown on a TCO substrate and the light-trapping effect in Cu <sub>2</sub> O solar cells. Journal of Materials Chemistry C, 2014, 2, 2908.	5.5	50
8	Controllable Growth Orientation of Ag <sub>2</sub> O and Cu <sub>2</sub> O Films by Electrocrystallization from Aqueous Solutions. Crystal Growth and Design, 2013, 13, 52-58.	3.0	47
9	Room temperature ultraviolet light emitting ZnO layer prepared by low-temperature electrodeposition. Journal Physics D: Applied Physics, 2006, 39, 1481-1484.	2.8	41
10	Key Process in Palladium-Catalyzed Asymmetric Transformation of Propargyl Electrophiles. Racemization of Optically Active $\eta^1$ -Allenylpalladium(II). Journal of the American Chemical Society, 2001, 123, 7164-7165.	13.7	40
11	Size-Controllable Growth of Vertical ZnO Nanorod Arrays by a Pd-Catalyzed Chemical Solution Process. Crystal Growth and Design, 2011, 11, 5533-5539.	3.0	35
12	Electrodeposited ZnO Nanowire/Cu <sub>2</sub> O Photovoltaic Device with Highly Resistive ZnO Intermediate Layer. ACS Applied Materials & Interfaces, 2014, 6, 13461-13469.	8.0	35
13	Drastic Change in Electrical Properties of Electrodeposited ZnO: Systematic Study by Hall Effect Measurements. Journal of Physical Chemistry C, 2012, 116, 15925-15931.	3.1	31
14	Carbon-Carbon Bond Formation by Electrophilic Addition at the Central Carbon of the $\eta^1$ - $\eta^3$ -Allenyl/Propargyl Ligand on the Pd-Pd Bond. Journal of the American Chemical Society, 2001, 123, 3223-3228.	13.7	30
15	Characterization of Transparent Ferromagnetic Fe:ZnO Semiconductor Films Chemically Prepared from Aqueous Solutions. Journal of the Electrochemical Society, 2005, 152, G736.	2.9	28
16	Electroless deposition of transparent conducting and $c$ -oriented ZnO films from aqueous solutions. Electrochimica Acta, 2007, 53, 1170-1174.	5.2	28
17	Electrochemical Growth of (0001)-n-ZnO Film on (111)-p-Cu <sub>2</sub> O Film and the Characterization of the Heterojunction Diode. Journal of the Electrochemical Society, 2011, 158, D621.	2.9	28
18	Annealing effects and photoelectric properties of single-oriented Cu <sub>2</sub> O films electrodeposited on Au(111)/Si(100) substrates. Journal of Materials Chemistry A, 2013, 1, 9182.	10.3	28

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19	Application of "Boomerang" Linear Polystyrene-Stabilized Pd Nanoparticles to a Series of C-C Coupling Reactions in Water. <i>Catalysts</i> , 2015, 5, 106-118.	3.5	26
20	Effects of preparation temperature on optical and electrical characteristics of (111)-oriented Cu <sub>2</sub> O films electrodeposited on (111)-Au film. <i>Thin Solid Films</i> , 2012, 520, 1779-1783.	1.8	25
21	Oriented Transformation from Layered Zinc Hydroxides to Nanoporous ZnO: A Comparative Study of Different Anion Types. <i>Inorganic Chemistry</i> , 2018, 57, 13137-13149.	4.0	25
22	Microstructure and Electronic Structure of Transparent Ferromagnetic ZnO <sup>2+</sup> Spinel Iron Oxide Composite Films. <i>Chemistry of Materials</i> , 2006, 18, 763-770.	6.7	24
23	Zinc Oxide Nano-Cauliflower Array with Room Temperature Ultraviolet Light Emission. <i>Crystal Growth and Design</i> , 2008, 8, 1418-1421.	3.0	23
24	Preparation of Hollow Titanium Dioxide Shell Thin Films by Electrophoresis and Electrolysis for Dye-Sensitized Solar Cells. <i>Electrochemical and Solid-State Letters</i> , 2009, 12, E5.	2.2	22
25	Detailed Mechanism for Hiyama Coupling Reaction in Water Catalyzed by Linear Polystyrene-Stabilized PdO Nanoparticles. <i>Organometallics</i> , 2017, 36, 1618-1622.	2.3	21
26	Light-assisted electrochemical construction of (111)Cu <sub>2</sub> O/(0001)ZnO heterojunction. <i>Thin Solid Films</i> , 2012, 520, 2261-2264.	1.8	20
27	Morphological evolution of ZnO nanorod arrays induced by a pH-buffering effect during electrochemical deposition. <i>RSC Advances</i> , 2014, 4, 30999.	3.6	20
28	Novel TiO <sub>2</sub> /ZnO multilayer mirrors at "water-window"™ wavelengths fabricated by atomic layer epitaxy. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 474008.	1.8	19
29	Selective Preparation of Zinc Oxide Nanostructures by Electrodeposition on the Templates of Surface-functionalized Polymer Particles. <i>Chemistry Letters</i> , 2007, 36, 680-681.	1.3	16
30	Effects of Counteranions and Dissolved Oxygen on Chemical ZnO Deposition from Aqueous Solutions. <i>Journal of the Electrochemical Society</i> , 2009, 156, H320.	2.9	16
31	Vanadium <sup>III</sup> Ion Redox Reactions in a Three-Dimensional Network of Reduced Graphite Oxide. <i>ChemElectroChem</i> , 2016, 3, 650-657.	3.4	16
32	Inverted organic light-emitting diodes with an electrochemically deposited zinc oxide electron injection layer. <i>Journal of Applied Physics</i> , 2016, 120, 185501.	2.5	16
33	Preparation of titanium dioxide thin films by indirect-electrodeposition. <i>Thin Solid Films</i> , 2017, 628, 203-207.	1.8	15
34	Catalytic specificity of linear polystyrene-stabilized Pd nanoparticles during Ullmann coupling reaction in water and the associated mechanism. <i>Journal of Organometallic Chemistry</i> , 2018, 854, 87-93.	1.8	15
35	Poly(tetrafluoroethylene)-Stabilized Metal Nanoparticles: Preparation and Evaluation of Catalytic Activity for Suzuki, Heck, and Arene Hydrogenation in Water. <i>ACS Omega</i> , 2018, 3, 10066-10073.	3.5	15
36	Hybrid ZnO/Phthalocyanine Photovoltaic Device with Highly Resistive ZnO Intermediate Layer. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 9386-9395.	8.0	14

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37	Improvements in external quantum efficiency of electrochemically constructed n-ZnO/p-Cu <sub>2</sub> O photovoltaic devices by rapid thermal annealing. <i>Thin Solid Films</i> , 2018, 653, 158-164.	1.8	14
38	Effect of dimethylamine borane concentration on antireflection properties of silica thin films via redox deposition. <i>Thin Solid Films</i> , 2006, 515, 2513-2518.	1.8	13
39	QCM Studies of Chemical Solution Deposition of ZnO in Aqueous Media Containing Zinc Nitrate and Dimethylamineborane. <i>Journal of the Electrochemical Society</i> , 2006, 153, C735.	2.9	13
40	One-pot hybrid physical-chemical vapor deposition for formation of carbonaceous thin film with catalytic activity for oxygen reduction. <i>Electrochemistry Communications</i> , 2011, 13, 1451-1454.	4.7	13
41	Fluoride-Free Miyama Coupling Reaction Catalyzed by Linear Polystyrene-Stabilized PdO Nanoparticles in Water: Specific Reactivity of PdO Nanoparticles over Pd Nanoparticles. <i>Synlett</i> , 2016, 27, 1202-1206.	1.8	13
42	(0001)-Oriented Single-Crystal-Like Porous ZnO on ITO Substrates via Quasi-Topotactic Transformation from (001)-Oriented Zinc Hydroxychloride Crystals. <i>Crystal Growth and Design</i> , 2017, 17, 3826-3833.	3.0	13
43	Thermoelectric Properties of Impurity-Doped Mg <sub>2</sub> Sn. <i>Journal of Electronic Materials</i> , 2019, 48, 3330-3335.	2.2	13
44	Recovery of In Situ-generated Pd Nanoparticles with Linear Polystyrene. <i>Green and Sustainable Chemistry</i> , 2011, 01, 19-25.	1.2	13
45	Enhanced antireflection properties of silica thin films via redox deposition and hot-water treatment. <i>Solar Energy Materials and Solar Cells</i> , 2010, 94, 1055-1058.	6.2	12
46	Titanium dioxide thin films prepared by electrolysis from aqueous solution of titanium-lactic acid complex for dye-sensitized solar cells. <i>Thin Solid Films</i> , 2012, 520, 3510-3514.	1.8	12
47	Light-Irradiated Electrochemical Direct Construction of Cu <sub>2</sub> O/CuO Bilayers by Switching Cathodic/Anodic Polarization in Copper(II)-Tartrate Complex Aqueous Solution. <i>ACS Omega</i> , 2020, 5, 683-691.	3.5	12
48	Linear Polystyrene-stabilized Pt Nanoparticles Catalyzed Indole Synthesis in Water via Aerobic Alcohol Oxidation. <i>Chemistry Letters</i> , 2016, 45, 758-760.	1.3	11
49	Direct Preparation of 1.35-eV-Bandgap CuO:S Film by Chemical Bath Deposition. <i>Electrochemical and Solid-State Letters</i> , 2011, 14, D30.	2.2	10
50	Self-limiting nature in atomic-layer epitaxy of rutile thin films from TiCl <sub>4</sub> and H <sub>2</sub> O on sapphire (001) substrates. <i>Journal of Crystal Growth</i> , 2011, 314, 146-150.	1.5	10
51	Hybrid Cu <sub>2</sub> O Diode with Orientation-Controlled C <sub>60</sub> Polycrystal. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 3558-3565.	8.0	10
52	Highly c-axis oriented deposition of zinc oxide on an ITO surface modified by layer-by-layer method. <i>Electrochimica Acta</i> , 2013, 96, 237-242.	5.2	10
53	Review—Solution Electrochemical Process for Fabricating Metal Oxides and the Thermodynamic Design. <i>Journal of the Electrochemical Society</i> , 2021, 168, 112510.	2.9	9
54	Preparation of Silica Thin Films by Reduction of Aqueous Solution. <i>Electrochemical and Solid-State Letters</i> , 2004, 7, D1.	2.2	8

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55	Sustainable Electrodeposition of ZnO by a Galvanic Contact Method. <i>Electrochemical and Solid-State Letters</i> , 2009, 12, D72.	2.2	8
56	Electrochemically Grown ZnO Vertical Nanowire Scintillator with Light-Guiding Effect. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1700285.	1.8	8
57	Carbon-carbon Bond Forming Reactions of $\eta^5$ -Vinylcarbenedipalladium Complexes. <i>Chemistry Letters</i> , 1999, 28, 123-124.	1.3	7
58	Preparation of Thick Titanium Dioxide Films by Repeated Electrolysis-Calcination for Dye-Sensitized Solar Cells. <i>Journal of the Electrochemical Society</i> , 2014, 161, E40-E43.	2.9	7
59	Room temperature ultraviolet light-emitting ZnO vertical nanowires prepared by electrochemical growth. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1600473.	1.8	7
60	Growth and Characteristics of C <sub>8</sub> -BTBT Layer on $\alpha$ -Sapphire Substrate by Thermal Evaporation. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700862.	1.8	7
61	Mechanistic Study on Allylic Arylation in Water with Linear Polystyrene-Stabilized Pd and PdO Nanoparticles. <i>ACS Omega</i> , 2019, 4, 15764-15770.	3.5	7
62	Chemical Preparation of Zn-Incorporated Magnetite Film for High-Frequency Applications. <i>Journal of the Electrochemical Society</i> , 2004, 151, C519.	2.9	6
63	Thermal Phase Transformation of ZnO-Based Transparent Ferromagnetic Composite Films and the Change in Magnetic Characteristics. <i>Journal of the Electrochemical Society</i> , 2006, 153, G168.	2.9	6
64	Electrochemical Growth of Mg(OH) <sub>2</sub> Layered Films Stacked Parallel to the Substrates and Their Thermal Conversion to (111)-Oriented Nanoporous MgO Films. <i>ACS Omega</i> , 2021, 6, 2312-2317.	3.5	6
65	Transparent Ferromagnetic Semiconductor Fe-Zn-O Heterostructured Films. <i>Electrochemical and Solid-State Letters</i> , 2004, 7, G235.	2.2	5
66	Catalyst Layer Structures for Enhancement of Redox Reactions of V(IV/V) Ions. <i>Electrochimica Acta</i> , 2016, 210, 854-861.	5.2	5
67	Effects of cetyltrimethylammonium bromide on redox deposition and rectification properties of silicon oxide thin film. <i>Thin Solid Films</i> , 2009, 517, 3230-3234.	1.8	4
68	Helical Pore Alignment on Cylindrical Carbon. <i>Small</i> , 2020, 16, 1905916.	10.0	4
69	Single-Orientation Nanoporous NiO Films: Spontaneous Evolution from Dense Low-Crystalline Ni(OH) <sub>2</sub> Films. <i>Crystal Growth and Design</i> , 2022, 22, 4122-4132.	3.0	4
70	ZnO Nano-Cauliflower Array Dye-Sensitized Solar Cells. <i>ECS Transactions</i> , 2009, 16, 3-10.	0.5	3
71	Preparation of Co-Ce-O Films by the Metal-Oxide Co-Electroless Deposition Method. <i>ECS Electrochemistry Letters</i> , 2013, 2, D26-D28.	1.9	3
72	Localized Photoluminescence Imaging of Bi-Layered Cuprous/Cupric Oxide Semiconductor Films by Synchrotron Radiation. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800119.	1.5	3

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73	Suzuki–Miyaura Cross-Coupling Reaction with Potassium Aryltrifluoroborate in Pure Water Using Recyclable Nanoparticle Catalyst. <i>Synlett</i> , 2022, 33, 57-61.	1.8	3
74	Structural and Electrical Characterizations of Electrodeposited p-Type Semiconductor Cu <sub>2</sub> O Films.. <i>ChemInform</i> , 2005, 36, no.	0.0	2
75	Microstructures and MR effects of transparent ferromagnetic chemically prepared Fe-Zn-O films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 2760-2764.	1.8	2
76	Redox Deposition of Silica Thin Films: Effect of Hydrogen Peroxide and Poly(vinylpyrrolidone) on Film Growth. <i>Journal of the Electrochemical Society</i> , 2008, 155, E43.	2.9	2
77	Atomic layer epitaxy of TiO <sub>2</sub> /ZnO multilayer optics using ZnO buffer layer for water-window x-ray. , 2011, , .		2
78	A carbonaceous thin film containing N-coordinated Fe and Co with catalytic activity for oxygen reduction. <i>Tanso</i> , 2014, 2014, 165-168.	0.1	2
79	Effect of Light Intensity on the Light-Assisted Electrochemical Construction of (0001)-ZnO/(111)-Cu <sub>2</sub> O Heterostructure. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 12798-12804.	0.9	2
80	Surface study of sintered alumina substrates using solution-processed ZnO nanorods as a microscopic wettability indicator. <i>Surface and Interface Analysis</i> , 2017, 49, 216-222.	1.8	2
81	Preferred orientation of 2,7-dioctyl[1]benzothieno[3,2-b][1]benzothiophene molecules on inorganic single-crystal substrates with various orientations. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 08RE04.	1.5	2
82	Direct growth of ZnO crystals on various Cu substrates by Cu-catalyzed chemical bath deposition. <i>CrystEngComm</i> , 2019, 21, 2476-2480.	2.6	2
83	Effects on external quantum efficiency of electrochemically constructed n-ZnO/p-Cu <sub>2</sub> O photovoltaic device by annealing. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	2
84	Electrochemical Construction of (<i>0001</i>)-ZnO/(<i>111</i>)-Cu <sub>2</sub> O Heterojunction Diode with Excellent Rectification Feature. <i>Advanced Materials Research</i> , 2011, 287-290, 1412-1415.	0.3	1
85	Structure-controlled ZnO/Cu <sub>2</sub> O inorganic solar cells by electrodeposition. , 2011, , .		1
86	Self-limiting nature of atomic layer epitaxy of wurtzite thin films obtained from sequentially pressurized Zn(CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub> and H <sub>2</sub> O vapor pulses on sapphire (001) substrates. <i>IOP Conference Series: Materials Science and Engineering</i> , 2011, 24, 012022.	0.6	1
87	Hybrid zinc oxide:Cu-phthalocyanine bulk-heterojunction photovoltaic device. <i>RSC Advances</i> , 2014, 4, 14956-14961.	3.6	1
88	Linear polystyrene-stabilized Rh(III) nanoparticles for oxidative coupling of arylboronic acids with alkenes in water. <i>Journal of Organometallic Chemistry</i> , 2018, 873, 1-7.	1.8	1
89	High-Resolution Mapping of Local Photoluminescence Properties in CuO/Cu <sub>2</sub> O Semiconductor Bi-Layers by Using Synchrotron Radiation. <i>Materials</i> , 2021, 14, 5570.	2.9	1
90	Helically Aligned Fused Carbon Hollow Nanospheres with Chiral Discrimination Ability. <i>Nanoscale</i> , 2022, , .	5.6	1

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91	Atomic layer epitaxy of TiO <sub>2</sub> /ZnO multilayers for water-window attosecond optics. , 2009, , .		0
92	Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan		
93	Atomic layer epitaxy of ZnO and TiO <sub>2</sub> thin films on c-plane sapphire substrate for novel oxide soft x-ray mirrors. , 2010, , .		0
94	Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2010, 61, .		
95	Fabrication of Al <sub>2</sub> O <sub>3</sub> /TiO <sub>2</sub> multilayer mirrors for water-window attosecond pulses. , 2010, , .		0
96	All-solution-processed CIS solar cells based on electrodeposited ZnO nanopillars. , 2011, , .		0
97	Application of Potential-pH Diagrams to the Electrodeposition of Metal Oxides. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2013, 64, 94-98.	0.2	0
98	Oxide Solar Cells: Development Trend and Application of Solution Processes. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2015, 66, 136-140.	0.2	0
99	Morphology-controlled Electrocrystallization of Oxides. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2016, 67, 197-201.	0.2	0
100	Preparation of Sword-Type Leaf-Like Zirconium Oxide Films by Electrolysis. Journal of the Electrochemical Society, 2020, 167, 102512.	2.9	0
101	Chiral Substances: Helical Pore Alignment on Cylindrical Carbon (Small 2/2020). Small, 2020, 16, 2070010.	10.0	0
102	Development of novel oxide multilayer mirrors at "water-window" wavelengths by atomic layer deposition / atomic layer epitaxy. Transactions of the Materials Research Society of Japan, 2009, 34, 605-608.	0.2	0
103	Preparation of Epoxy Resin Thin Film by Electroless Deposition Method. IEEJ Transactions on Electronics, Information and Systems, 2011, 131, 1843-1847.	0.2	0
104	Effect of Oxide Intermediate Layers on Pyramidally Textured Cu <sub>2</sub> O/ZnO Solar Cells Prepared By Electrodeposition. ECS Meeting Abstracts, 2016, , .	0.0	0
105	Growth of Zinc Oxide Nanorod Arrays by Aqueous Solution Processes. Materia Japan, 2018, 57, 5-10.	0.1	0
106	Structural and Magnetic Characteristics of Hematite and Magnetite Films Prepared by Electrodeposition and Heating. Journal of the Electrochemical Society, 2022, 169, 042501.	2.9	0