

Taishi Takenobu

List of Publications by Year in descending order

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papers

5,364
citations

109137

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82410

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all docs

99
docs citations

99
times ranked

8509
citing authors

#	ARTICLE	IF	CITATIONS
1	Large-Area Synthesis of Highly Crystalline WSe ₂ Monolayers and Device Applications. ACS Nano, 2014, 8, 923-930.	7.3	885
2	Highly Flexible MoS ₂ Thin-Film Transistors with Ion Gel Dielectrics. Nano Letters, 2012, 12, 4013-4017.	4.5	746
3	Monolayer MoSe ₂ Grown by Chemical Vapor Deposition for Fast Photodetection. ACS Nano, 2014, 8, 8582-8590.	7.3	515
4	High Current Density in Light-Emitting Transistors of Organic Single Crystals. Physical Review Letters, 2008, 100, 066601.	2.9	216
5	Highly Efficient and Stable Perovskite Solar Cells by Interfacial Engineering Using Solution-Processed Polymer Layer. Journal of Physical Chemistry C, 2017, 121, 1562-1568.	1.5	166
6	2D Materials for Large-Area Flexible Thermoelectric Devices. Advanced Energy Materials, 2020, 10, 1902842.	10.2	143
7	Hole mobility enhancement and <i>p</i> -doping in monolayer WSe ₂ by gold decoration. 2D Materials, 2014, 1, 034001.	2.0	134
8	Organic single-crystal light-emitting field-effect transistors. Journal of Materials Chemistry C, 2014, 2, 965-980.	2.7	130
9	Highly Flexible and High-Performance Complementary Inverters of Large-Area Transition Metal Dichalcogenide Monolayers. Advanced Materials, 2016, 28, 4111-4119.	11.1	112
10	Highly Fluorescent [7]Carbohelicene Fused by Asymmetric 1,2-Dialkyl-Substituted Quinoxaline for Circularly Polarized Luminescence and Electroluminescence. Journal of Physical Chemistry C, 2015, 119, 13937-13947.	1.5	101
11	Fabrication of stretchable MoS ₂ thin-film transistors using elastic ion-gel gate dielectrics. Applied Physics Letters, 2013, 103, .	1.5	96
12	The pursuit of electrically-driven organic semiconductor lasers. Journal of Materials Chemistry C, 2014, 2, 2827.	2.7	87
13	Synthetic Control of the Excited-State Dynamics and Circularly Polarized Luminescence of Fluorescent α -Push-Pull-Tetrathia[9]helicenes. Chemistry - A European Journal, 2016, 22, 4263-4273.	1.7	83
14	Ambipolar Organic Single-Crystal Transistors Based on Ion Gels. Advanced Materials, 2012, 24, 4392-4397.	11.1	82
15	Synthesis of Large-Area InSe Monolayers by Chemical Vapor Deposition. Small, 2018, 14, e1802351.	5.2	81
16	Fluorescent Ferroelectrics of Hydrogen-Bonded Pyrene Derivatives. Journal of Physical Chemistry Letters, 2015, 6, 1813-1818.	2.1	77
17	Monolayer Transition Metal Dichalcogenides as Light Sources. Advanced Materials, 2018, 30, e1707627.	11.1	76
18	Enhanced thermoelectric power in two-dimensional transition metal dichalcogenide monolayers. Physical Review B, 2016, 94, .	1.1	71

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19	Charge transport in ion-gated mono-, bi- and trilayer MoS ₂ field effect transistors. <i>Scientific Reports</i> , 2014, 4, 7293.	1.6	64
20	Synthetic Control of Photophysical Process and Circularly Polarized Luminescence of [5]Carbohelicene Derivatives Substituted by Maleimide Units. <i>Journal of Physical Chemistry C</i> , 2016, 120, 7860-7869.	1.5	63
21	Thermoelectric properties of a semicrystalline polymer doped beyond the insulator-to-metal transition by electrolyte gating. <i>Science Advances</i> , 2020, 6, eaay8065.	4.7	59
22	Flexible and stretchable thin-film transistors based on molybdenum disulphide. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 14996.	1.3	56
23	Controlled Excited-State Dynamics and Enhanced Fluorescence Property of Tetrasulfone[9]helicene by a Simple Synthetic Process. <i>Journal of Physical Chemistry C</i> , 2016, 120, 7421-7427.	1.5	55
24	High current densities in a highly photoluminescent organic single-crystal light-emitting transistor. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	54
25	Green light emission from the edges of organic single-crystal transistors. <i>Applied Physics Letters</i> , 2010, 97, 173301.	1.5	51
26	Self-Aligned and Scalable Growth of Monolayer WSe ₂ /MoS ₂ Lateral Heterojunctions. <i>Advanced Functional Materials</i> , 2018, 28, 1706860.	7.8	48
27	Thermoelectric Detection of Multi-Band Density of States in Semiconducting and Metallic Single-Walled Carbon Nanotubes. <i>Small</i> , 2016, 12, 3388-3392.	5.2	45
28	Inkjet printing of single-walled carbon nanotube thin-film transistors patterned by surface modification. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	43
29	An Ionic Liquid That Dissolves Semiconducting Polymers: A Promising Electrolyte for Bright, Efficient, and Stable Light-Emitting Electrochemical Cells. <i>Chemistry of Materials</i> , 2017, 29, 6122-6129.	3.2	42
30	Continuous Band-Filling Control and One-Dimensional Transport in Metallic and Semiconducting Carbon Nanotube Tangled Films. <i>Advanced Functional Materials</i> , 2014, 24, 3305-3311.	7.8	41
31	Protonation-induced red-coloured circularly polarized luminescence of [5]carbohelicene fused by benzimidazole. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 6738-6743.	1.5	39
32	Enhancement of luminescence intensity in TMPY/perylene co-single crystals. <i>Journal of Materials Chemistry</i> , 2011, 21, 17662.	6.7	38
33	Effect of postannealing on the performance of pentacene single-crystal ambipolar transistors. <i>Applied Physics Letters</i> , 2008, 93, 073301.	1.5	37
34	Electron-hole doping asymmetry of Fermi surface reconstructed in a simple Mott insulator. <i>Nature Communications</i> , 2016, 7, 12356.	5.8	37
35	A Versatile and Simple Approach to Generate Light Emission in Semiconductors Mediated by Electric Double Layers. <i>Advanced Materials</i> , 2017, 29, 1606918.	11.1	37
36	Metal-Guided Selective Growth of 2D Materials: Demonstration of a Bottom-Up CMOS Inverter. <i>Advanced Materials</i> , 2019, 31, e1900861.	11.1	36

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37	High Current Injection into Dynamic p-n Homojunction in Polymer Light-Emitting Electrochemical Cells. <i>Advanced Materials</i> , 2017, 29, 1606392.	11.1	35
38	Ultrafast photoinduced electron transfer in face-to-face charge-transfer π -complexes of planar porphyrins and hexaazatriphenylene derivatives. <i>Chemical Science</i> , 2015, 6, 1498-1509.	3.7	33
39	Recent Progress on Light-Emitting Electrochemical Cells with Nonpolymeric Materials. <i>Advanced Functional Materials</i> , 2020, 30, 1908641.	7.8	33
40	Optically pumped amplified spontaneous emission in an ionic liquid-based polymer light-emitting electrochemical cell. <i>Applied Physics Letters</i> , 2012, 100, 263301.	1.5	32
41	Giant power factors in p- and n-type large-area graphene films on a flexible plastic substrate. <i>Npj 2D Materials and Applications</i> , 2019, 3, .	3.9	31
42	Electron-Transfer Reduction Properties and Excited-State Dynamics of Benzo[ghi]peryleneimide and Coroneneimide Derivatives. <i>Journal of Physical Chemistry C</i> , 2014, 118, 7710-7720.	1.5	30
43	Inkjet printing of aligned single-walled carbon-nanotube thin films. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	29
44	Electron spin resonance observation of charge carrier concentration in organic field-effect transistors during device operation. <i>Physical Review B</i> , 2013, 87, .	1.1	28
45	Ambipolar light-emitting organic single-crystal transistors with a grating resonator. <i>Scientific Reports</i> , 2015, 5, 10221.	1.6	26
46	Characterization of New Rubrene Analogues with Heteroaryl Substituents. <i>Crystal Growth and Design</i> , 2015, 15, 442-448.	1.4	26
47	Microscopic observation of efficient charge transport processes across domain boundaries in donor-acceptor-type conjugated polymers. <i>Communications Physics</i> , 2019, 2, .	2.0	24
48	Formation of environmentally stable hole-doped graphene films with instantaneous and high-density carrier doping via a boron-based oxidant. <i>Npj 2D Materials and Applications</i> , 2019, 3, .	3.9	21
49	Two-dimensional magnetic interactions and magnetism of high-density charges in a polymer transistor. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	20
50	Controllable Electronic Structures and Photoinduced Processes of Bay-Linked Peryleneimide Dimers and a Ferrocene-Linked Triad. <i>Chemistry - A European Journal</i> , 2016, 22, 9631-9641.	1.7	20
51	Two-dimensional ground-state mapping of a Mott-Hubbard system in a flexible field-effect device. <i>Science Advances</i> , 2019, 5, eaav7282.	4.7	20
52	Triethylene Glycol Substituted Diketopyrrolopyrrole- and Isoindigo-Dye Based Donor-Acceptor Copolymers for Organic Light-Emitting Electrochemical Cells and Transistors. <i>Advanced Electronic Materials</i> , 2020, 6, 1901414.	2.6	20
53	Extraction of the contact resistance from the saturation region of rubrene single-crystal transistors. <i>Applied Physics Letters</i> , 2011, 99, 233301.	1.5	19
54	An ester-substituted polyfluorene derivative for light-emitting electrochemical cells: bright blue emission and its application in a host-guest system. <i>Materials Chemistry Frontiers</i> , 2018, 2, 952-958.	3.2	19

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55	Wafer-Scale Growth of One-Dimensional Transition-Metal Telluride Nanowires. <i>Nano Letters</i> , 2021, 21, 243-249.	4.5	18
56	Room-Temperature Chiral Light-Emitting Diode Based on Strained Monolayer Semiconductors. <i>Advanced Materials</i> , 2021, 33, e2100601.	11.1	16
57	Simultaneous enhancement of conductivity and Seebeck coefficient in an organic Mott transistor. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	15
58	Photodetection in p - n junctions formed by electrolyte-gated transistors of two-dimensional crystals. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	15
59	Control of the electrochemical and photophysical properties of N-substituted benzo[ghi]perylene derivatives. <i>Materials Chemistry Frontiers</i> , 2017, 1, 2299-2308.	3.2	14
60	Direct observation of electrically induced Pauli paramagnetism in single-layer graphene using ESR spectroscopy. <i>Scientific Reports</i> , 2016, 6, 34966.	1.6	12
61	Air-stable and efficient electron doping of monolayer MoS ₂ by salt-crown ether treatment. <i>Nanoscale</i> , 2021, 13, 8784-8789.	2.8	12
62	Highly Efficient Microscopic Charge Transport within Crystalline Domains in a Furan-Flanked Diketopyrrolopyrrole-Based Conjugated Copolymer. <i>Advanced Functional Materials</i> , 2020, 30, 2000389.	7.8	11
63	Chemical hole doping into large-area transition metal dichalcogenide monolayers using boron-based oxidant. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 02CB15.	0.8	9
64	Exciton Polarization and Renormalization Effect for Optical Modulation in Monolayer Semiconductors. <i>ACS Nano</i> , 2019, 13, 9218-9226.	7.3	9
65	CVD growth of large-area InS atomic layers and device applications. <i>Nanoscale</i> , 2020, 12, 9366-9374.	2.8	9
66	Light emission from organic single crystals operated by electrolyte doping. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 03EF02.	0.8	8
67	Spatial Control of Dynamic p - n Junctions in Transition Metal Dichalcogenide Light-Emitting Devices. <i>ACS Nano</i> , 2021, 15, 12911-12921.	7.3	8
68	Nanowire-to-Nanoribbon Conversion in Transition-Metal Chalcogenides: Implications for One-Dimensional Electronics and Optoelectronics. <i>ACS Applied Nano Materials</i> , 2022, 5, 1775-1782.	2.4	7
69	Three-dimensional networks of superconducting NbSe ₂ flakes with nearly isotropic large upper critical field. <i>Npj 2D Materials and Applications</i> , 2021, 5, .	3.9	6
70	Charge transport and thermoelectric conversion in solution-processed semicrystalline polymer films under electrochemical doping. <i>Communications Physics</i> , 2021, 4, .	2.0	6
71	Electrical investigation of the interface band structure in rubrene single-crystal/nickel junction. <i>Applied Physics Letters</i> , 2011, 99, 043505.	1.5	5
72	Realization of ohmic-like contact between ferromagnet and rubrene single crystal. <i>Applied Physics Letters</i> , 2012, 101, 073501.	1.5	5

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73	Non-Fermi-liquid behavior and doping asymmetry in an organic Mott insulator interface. <i>Physical Review B</i> , 2019, 100, .	1.1	5
74	Strategy for improved frequency response of electric double-layer capacitors. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	4
75	Charge and thermoelectric transport mechanism in donor-acceptor copolymer films. <i>Physical Review Research</i> , 2020, 2, .	1.3	4
76	Formation of a Two-Dimensional Electronic System in Laterally Assembled WTe Nanowires. <i>ACS Applied Nano Materials</i> , 2022, 5, 6277-6284.	2.4	4
77	Microscopic observation of highly mobile charge carriers in organic transistors of semicrystalline conducting polymers. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 02CA04.	0.8	3
78	GaN light-emitting device based on ionic liquid electrolyte. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 06HE05.	0.8	3
79	One-dimensionality of thermoelectric properties of semiconducting nanomaterials. <i>Physical Review Materials</i> , 2021, 5, .	0.9	3
80	Electric Double Layer Doping of Charge-Ordered Insulators $\hat{\Gamma}_{\pm}$ -(BEDT-TTF) ₂ I ₃ and $\hat{\Gamma}_{\pm}$ -(BETS) ₂ I ₃ . <i>Crystals</i> , 2021, 11, 791.	1.0	3
81	Electrical transport properties in a single-walled carbon nanotube network. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 183-186.	0.8	2
82	Structure and thermoelectric properties of electrochemically doped polythiophene thin films: Effect of side chain density. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	2
83	Metallic Conduction and Carrier Localization in Two-Dimensional BEDO-TTF Charge-Transfer Solid Crystals. <i>Crystals</i> , 2022, 12, 23.	1.0	2
84	Semiconductors: Ambipolar Organic Single-Crystal Transistors Based on Ion Gels (Adv. Mater. 32/2012). <i>Advanced Materials</i> , 2012, 24, 4463-4463.	11.1	1
85	Polarized emission from light-emitting electrochemical cells using uniaxially oriented polymer thin films of poly(9,9-dioctylfluorene-co-bithiophene). <i>Japanese Journal of Applied Physics</i> , 2018, 57, 03EF01.	0.8	1
86	Electrolyte-Induced Metal-Like Conduction in Nonstoichiometric Organic Crystalline Semiconductors under Simultaneous Bandwidth Control. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1900162.	1.2	1
87	2D Materials: Metal-Guided Selective Growth of 2D Materials: Demonstration of a Bottom-Up CMOS Inverter (Adv. Mater. 18/2019). <i>Advanced Materials</i> , 2019, 31, 1970132.	11.1	1
88	A versatile structure of light-emitting electrochemical cells for printed electronics. <i>Applied Physics Express</i> , 2020, 13, 084002.	1.1	1
89	Ultrafast Singlet Fission and Efficient Carrier Transport in a Lamellar Assembly of Bis[(trialkoxypheyl)ethynyl]pentacene. <i>Journal of Physical Chemistry C</i> , 0, , .	1.5	1
90	Novel functional devices of transition metal dichalcogenide monolayers. , 2014, , .		0

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91	Novel Functional Devices of Single-walled Carbon Nanotubes. Molecular Science, 2015, 9, A0080.	0.2	0
92	Nonpolymeric LECs: Recent Progress on Light-Emitting Electrochemical Cells with Nonpolymeric Materials (Adv. Funct. Mater. 33/2020). Advanced Functional Materials, 2020, 30, 2070223.	7.8	0
93	Room-Temperature Chiral Light-Emitting Diode Based on Strained Monolayer Semiconductors (Adv. Tj ETQq1 1 0,784314 rgBT /C	11.1	0
94	High Current Density Injection into Polymer Light-Emitting Electrochemical Cells. The Review of Laser Engineering, 2018, 46, 10.	0.0	0
95	Novel functional devices of transition metal dichalcogenide monolayers. , 2022, , .		0