

# Takashi Tachikawa

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/701177/takashi-tachikawa-publications-by-year.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

68

papers

3,973

citations

29

h-index

63

g-index

76

ext. papers

4,373

ext. citations

8.4

avg, IF

5.81

L-index

#	Paper	IF	Citations
68	Manipulation of charge carrier flow in BiNbOCl nanoplate photocatalyst with metal loading.. <i>Chemical Science</i> , <b>2022</b> , 13, 3118-3128	9.4	4
67	Binary dopant segregation enables hematite-based heterostructures for highly efficient solar HO synthesis.. <i>Nature Communications</i> , <b>2022</b> , 13, 1499	17.4	2
66	Terahertz Spectroscopic Measurements and Solid-State Density Functional Calculations on CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Perovskites: Short-Range Order of Methylammonium. <i>Journal of Physical Chemistry C</i> , <b>2022</b> , 126, 339-348	3.8	2
65	Mechano- and Thermo-responsive Luminescence of Crystalline Thienylbenzothiadiazole Derivatives: Stepwise Hypsochromic Switching of Near-Infrared Emission. <i>Crystal Growth and Design</i> , <b>2022</b> , 22, 547-558	3.5	2
64	In Situ Exploration of the Structural Transition during Morphology- and Efficiency-Conserving Halide Exchange on a Single Perovskite Nanocrystal. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 2548-2553	16.4	2
63	In Situ Exploration of the Structural Transition during Morphology- and Efficiency-Conserving Halide Exchange on a Single Perovskite Nanocrystal. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 2578-2583	3.6	1
62	Multi-color mechanochromic luminescence of three polymorphic crystals of a donor-acceptor-type benzothiadiazole derivative. <i>CrystEngComm</i> , <b>2021</b> , 23, 5899-5907	3.3	5
61	Formation of Mixed-Valence Luminescent Silver Clusters via Cation-Coupled Electron-Transfer in a Redox-Active Ionic Crystal Based on a Dawson-type Polyoxometalate with Closed Pores. <i>European Journal of Inorganic Chemistry</i> , <b>2021</b> , 2021, 1531-1535	2.3	3
60	Organic photostimulated luminescence associated with persistent spin-correlated radical pairs. <i>Communications Materials</i> , <b>2021</b> , 2,	6	4
59	In Situ Exploration of Stimulus-Induced Emission Changes in Mechanochromic Dyes. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 7826-7831	6.4	5
58	Mechanochromic Luminescence (MCL) of Purely Organic Two-Component Dyes: Wide-Range MCL over 300 nm and Two-Step MCL by Charge-Transfer Complexation. <i>Chemistry - A European Journal</i> , <b>2021</b> , 27, 13982-13990	4.8	5
57	Mechanochromic Luminescence and Solid-State Circularly Polarized Luminescence of a Chiral Diamine-Linked Bispyrene. <i>ChemPhotoChem</i> , <b>2021</b> , 5, 878	3.3	
56	Innentitelbild: Ultra-Narrow Depletion Layers in a Hematite Mesocrystal-Based Photoanode for Boosting Multihole Water Oxidation (Angew. Chem. 23/2020). <i>Angewandte Chemie</i> , <b>2020</b> , 132, 8810-8810 <sup>3,6</sup>	3.6	
55	Ultra-Narrow Depletion Layers in a Hematite Mesocrystal-Based Photoanode for Boosting Multihole Water Oxidation. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 9047-9054	16.4	26
54	TiO superstructures with oriented nanospaces: a strategy for efficient and selective photocatalysis. <i>Nanoscale</i> , <b>2020</b> , 12, 6420-6428	7.7	6
53	Ultra-Narrow Depletion Layers in a Hematite Mesocrystal-Based Photoanode for Boosting Multihole Water Oxidation. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 9132-9139	3.6	1
52	Unraveling Hidden Correlations between Molecular Diffusivity and Reactivity in Ruthenium Complex-Modified Mesoporous Silica. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 21502-21511	3.8	

51	Mechanistic Insights into Photochemical Reactions on CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Perovskite Nanoparticles from Single-Particle Photoluminescence Spectroscopy. <i>ChemNanoMat</i> , <b>2019</b> , 5, 340-345	3.5	4
50	Transient Electron Spin Polarization Imaging of Heterogeneous Charge-Separation Geometries at Bulk-Heterojunction Interfaces in Organic Solar Cells. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 13472-13481	3.8	14
49	Charge Carrier Dynamics in Sr-Doped NaTaO <sub>3</sub> Photocatalysts Revealed by Deep Ultraviolet Single-Particle Microspectroscopy. <i>Journal of Physical Chemistry C</i> , <b>2019</b> ,	3.8	6
48	Rapid formation of small mixed-valence luminescent silver clusters via cation-coupled electron-transfer in a redox-active porous ionic crystal based on dodecamolybdophosphate. <i>Nanoscale</i> , <b>2019</b> , 11, 5460-5466	7.7	8
47	Efficient and versatile mechanochromic luminescence of phenanthroimidazolylbenzothiadiazoles: tricolor switching and directional control over the chromism. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 4988-4998	7.1	29
46	Interfacial oxygen vacancies yielding long-lived holes in hematite mesocrystal-based photoanodes. <i>Nature Communications</i> , <b>2019</b> , 10, 4832	17.4	61
45	Structural Dynamics of Lipid Bilayer Membranes Explored by Magnetic Field Effect Based Fluorescence Microscopy. <i>Journal of Physical Chemistry B</i> , <b>2019</b> , 123, 10896-10902	3.4	2
44	Controlled Synthesis of Gold Nanoparticles on Fluorescent Nanodiamond via Electron-Beam-Induced Reduction Method for Dual-Modal Optical and Electron Bioimaging. <i>ACS Applied Nano Materials</i> , <b>2018</b> , 1, 355-363	5.6	12
43	The Development of Functional Mesocrystals for Energy Harvesting, Storage, and Conversion. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 6295-6307	4.8	22
42	Charge-Transfer Character Drives MBius Antiaromaticity in the Excited Triplet State of Twisted [28]Hexaphyrin. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 2685-2690	6.4	12
41	Time-Resolved EPR Study on Singlet-Fission Induced Quintet Generation and Subsequent Triplet Dissociation in TIPS-Phenyl-Tetracene Aggregates. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , <b>2018</b> , 31, 163-167	0.7	1
40	Several Orders of Magnitude Difference in Charge-Transfer Kinetics Induced by Localized Trapped Charges on Mixed-Halide Perovskites. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 37057-37066	9.5	5
39	Singlet-Fission-Born Quintet State: Sublevel Selections and Trapping by Multiexciton Thermodynamics. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 5855-5861	6.4	39
38	Regulated Electron Tunneling of Photoinduced Primary Charge-Separated State in the Photosystem II Reaction Center. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 1179-1184	6.4	12
37	Direct Observation of Charge Collection at Nanometer-Scale Iodide-Rich Perovskites during Halide Exchange Reaction on CH <sub>3</sub> NH <sub>3</sub> PbBr. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 1724-1728	6.4	21
36	Topotactic Epitaxy of SrTiO <sub>3</sub> Mesocrystal Superstructures with Anisotropic Construction for Efficient Overall Water Splitting. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 5383-5387	3.6	11
35	Topotactic Epitaxy of SrTiO Mesocrystal Superstructures with Anisotropic Construction for Efficient Overall Water Splitting. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 5299-5303	16.4	74
34	Crystal-Face-Dependent Charge Dynamics on a BiVO <sub>4</sub> Photocatalyst Revealed by Single-Particle Spectroelectrochemistry. <i>ACS Catalysis</i> , <b>2016</b> , 6, 2250-2256	13.1	100

33	Atomic Layer Deposition-Confined Nonstoichiometric TiO <sub>2</sub> Nanocrystals with Tunneling Effects for Solar Driven Hydrogen Evolution. <i>Journal of Physical Chemistry Letters</i> , <b>2016</b> , 7, 1173-9	6.4	15
32	In Situ Fluorine Doping of TiO <sub>2</sub> Superstructures for Efficient Visible-Light Driven Hydrogen Generation. <i>ChemSusChem</i> , <b>2016</b> , 9, 617-23	8.3	46
31	Geometries, Electronic Couplings, and Hole Dissociation Dynamics of Photoinduced Electron-Hole Pairs in Polyhexylthiophene-Fullerene Dyads Rigidly Linked by Oligophenylenes. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 5879-85	16.4	37
30	Time Resolved EPR Study on the Photoinduced Long-Range Charge-Separated State in Protein: Electron Tunneling Mediated by Arginine Residue in Human Serum Albumin. <i>Journal of Physical Chemistry B</i> , <b>2016</b> , 120, 4365-72	3.4	3
29	Efficient charge separation on 3D architectures of TiO <sub>2</sub> mesocrystals packed with a chemically exfoliated MoS <sub>2</sub> shell in synergetic hydrogen evolution. <i>Chemical Communications</i> , <b>2015</b> , 51, 7187-90	5.8	68
28	Surface Charge Trapping in Organolead Halide Perovskites Explored by Single-Particle Photoluminescence Imaging. <i>Journal of Physical Chemistry Letters</i> , <b>2015</b> , 6, 3195-3201	6.4	95
27	Plasmon-induced spatial electron transfer between single Au nanorods and ALD-coated TiO <sub>2</sub> : dependence on TiO <sub>2</sub> thickness. <i>Chemical Communications</i> , <b>2015</b> , 51, 14373-6	5.8	16
26	Selective photoredox activity on specific facet-dominated TiO <sub>2</sub> mesocrystal superstructures incubated with directed nanocrystals. <i>Applied Catalysis B: Environmental</i> , <b>2015</b> , 176-177, 678-686	21.8	26
25	A nanocomposite superstructure of metal oxides with effective charge transfer interfaces. <i>Nature Communications</i> , <b>2014</b> , 5, 3038	17.4	113
24	Au/TiO <sub>2</sub> superstructure-based plasmonic photocatalysts exhibiting efficient charge separation and unprecedented activity. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 458-65	16.4	566
23	Efficient charge separation and photooxidation on cobalt phosphate-loaded TiO <sub>2</sub> mesocrystal superstructures. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 3381-3388	13	46
22	Metal oxide mesocrystals with tailored structures and properties for energy conversion and storage applications. <i>NPG Asia Materials</i> , <b>2014</b> , 6, e100-e100	10.3	77
21	Molecular-Level Understanding of the Photocatalytic Activity Difference between Anatase and Rutile Nanoparticles. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 14260-14265	3.6	22
20	Super-resolution mapping of reactive sites on titania-based nanoparticles with water-soluble fluorogenic probes. <i>ACS Nano</i> , <b>2013</b> , 7, 263-75	16.7	70
19	Role of Interparticle Charge Transfers in Agglomerated Photocatalyst Nanoparticles: Demonstration in Aqueous Suspension of Dye-Sensitized TiO <sub>2</sub> . <i>Journal of Physical Chemistry Letters</i> , <b>2013</b> , 4, 189-94	6.4	87
18	Superior Electron Transport and Photocatalytic Abilities of Metal-Nanoparticle-Loaded TiO <sub>2</sub> Superstructures. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 25444-25453	3.8	119
17	Superstructure of TiO <sub>2</sub> Crystalline Nanoparticles Yields Effective Conduction Pathways for Photogenerated Charges. <i>Journal of Physical Chemistry Letters</i> , <b>2012</b> , 3, 1422-7	6.4	123
16	Single-molecule, single-particle approaches for exploring the structure and kinetics of nanocatalysts. <i>Langmuir</i> , <b>2012</b> , 28, 8933-43	4	29

15	Photocatalytic oxidation surfaces on anatase TiO <sub>2</sub> crystals revealed by single-particle chemiluminescence imaging. <i>Chemical Communications</i> , <b>2012</b> , 48, 3300-2	5.8	34
14	Evidence for crystal-face-dependent TiO <sub>2</sub> photocatalysis from single-molecule imaging and kinetic analysis. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 7197-204	16.4	511
13	Single-molecule, single-particle fluorescence imaging of TiO <sub>2</sub> -based photocatalytic reactions. <i>Chemical Society Reviews</i> , <b>2010</b> , 39, 4802-19	58.5	142
12	Europium-based metal-organic framework as a photocatalyst for the one-electron oxidation of organic compounds. <i>Langmuir</i> , <b>2010</b> , 26, 10437-43	4	91
11	Photocatalysis of Dye-Sensitized TiO <sub>2</sub> Nanoparticles with Thin Overcoat of Al <sub>2</sub> O <sub>3</sub> : Enhanced Activity for H <sub>2</sub> Production and Dechlorination of CCl <sub>4</sub> . <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 10603-10609	3.8	129
10	Single-molecule observation of photocatalytic reaction in TiO <sub>2</sub> nanotube: importance of molecular transport through porous structures. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 934-6	16.4	78
9	Exploring the spatial distribution and transport behavior of charge carriers in a single titania nanowire. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 8485-95	16.4	82
8	Real-Time Single-Molecule Imaging of the Spatial and Temporal Distribution of Reactive Oxygen Species with Fluorescent Probes: Applications to TiO <sub>2</sub> Photocatalysts. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 1048-1059	3.8	77
7	Spatial control of protein binding on lipid bimembrane using photoeliminative linker. <i>Langmuir</i> , <b>2008</b> , 24, 6425-8	4	14
6	Mechanistic Insight into the TiO <sub>2</sub> Photocatalytic Reactions: Design of New Photocatalysts. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 5259-5275	3.8	552
5	Single-molecule detection of airborne singlet oxygen. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 16430-1	16.4	62
4	Photoinduced charge separation in titania nanotubes. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 14055-9	3.4	110
3	Single-molecule fluorescence imaging of the remote TiO <sub>2</sub> photocatalytic oxidation. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 23138-40	3.4	29
2	Dynamic Symmetry Conversion in Mixed-Halide Hybrid Perovskite upon Illumination. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 3858-3863	20.1	0
1	Mechanochromic Luminescence and Solid-State Circularly Polarized Luminescence of a Chiral Diamine-Linked Bispirene. <i>ChemPhotoChem</i> , <b>2018</b> , 1, 1-6	3.3	3