

Osamu Tomita

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5224850/publications.pdf>

Version: 2024-02-01

42
papers

1,938
citations

394421

19
h-index

265206

42
g-index

42
all docs

42
docs citations

42
times ranked

2502
citing authors

#	ARTICLE	IF	CITATIONS
1	Mimicking Natural Photosynthesis: Solar to Renewable H ₂ Fuel Synthesis by Z-Scheme Water Splitting Systems. <i>Chemical Reviews</i> , 2018, 118, 5201-5241.	47.7	748
2	Partial Oxidation of Alcohols on Visible-Light-Responsive WO ₃ Photocatalysts Loaded with Palladium Oxide Cocatalyst. <i>ACS Catalysis</i> , 2016, 6, 1134-1144.	11.2	134
3	Strong hybridization between Bi-6s and O-2p orbitals in Sillars Aurivillius perovskite Bi ₄ MO ₈ X (M = Nb, Ta; X = Cl, Br), visible light photocatalysts enabling stable water oxidation. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3100-3107.	10.3	106
4	Flux Synthesis of Layered Oxyhalide Bi ₄ NbO ₈ Cl Photocatalyst for Efficient Z-Scheme Water Splitting Under Visible Light. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 5642-5650.	8.0	89
5	Lead Bismuth Oxyhalides PbBiO ₂ X (X = Cl, Br) as Visible-Light-Responsive Photocatalysts for Water Oxidation: Role of Lone-Pair Electrons in Valence Band Engineering. <i>Chemistry of Materials</i> , 2018, 30, 5862-5869.	6.7	82
6	Highly selective phenol production from benzene on a platinum-loaded tungsten oxide photocatalyst with water and molecular oxygen: selective oxidation of water by holes for generating hydroxyl radical as the predominant source of the hydroxyl group. <i>Catalysis Science and Technology</i> , 2014, 4, 3850-3860.	4.1	72
7	Manganese-Substituted Polyoxometalate as an Effective Shuttle Redox Mediator in Z-Scheme Water Splitting under Visible Light. <i>ChemSusChem</i> , 2016, 9, 2201-2208.	6.8	58
8	Two-step photocatalytic water splitting into H ₂ and O ₂ using layered metal oxide KCa ₂ Nb ₃ O ₁₀ and its derivatives as O ₂ -evolving photocatalysts with IO ₃ ⁻ /I ⁻ or Fe ³⁺ /Fe ²⁺ redox mediator. <i>Catalysis Science and Technology</i> , 2015, 5, 2640-2648.	4.1	46
9	Layered Perovskite Oxyiodide with Narrow Band Gap and Long Lifetime Carriers for Water Splitting Photocatalysis. <i>Journal of the American Chemical Society</i> , 2021, 143, 8446-8453.	13.7	46
10	Highly Dispersed RuO ₂ Hydrates Prepared via Simple Adsorption as Efficient Cocatalysts for Visible-Light-Driven Z-Scheme Water Splitting with an IO ₃ ⁻ /I ⁻ Redox Mediator. <i>ACS Catalysis</i> , 2017, 7, 4336-4343.	11.2	42
11	Fabrication of cation-doped BaTaO ₂ N photoanodes for efficient photoelectrochemical water splitting under visible light irradiation. <i>APL Materials</i> , 2015, 3, 104418.	5.1	41
12	Surface-modified metal sulfides as stable H ₂ -evolving photocatalysts in Z-scheme water splitting with a [Fe(CN) ₆] ^{3-/4-} redox mediator under visible-light irradiation. <i>Sustainable Energy and Fuels</i> , 2017, 1, 1065-1073.	4.9	41
13	Tungstic acids H ₂ WO ₄ and H ₄ WO ₅ as stable photocatalysts for water oxidation under visible light. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10280-10288.	10.3	33
14	Improved water oxidation under visible light on oxyhalide Bi ₄ MO ₈ X (M = Nb, Ta) ETQq0 0 0 rgBT /Overlock 10 2018, 2, 1474-1480.	4.9	33
15	Two-Dimensional Metal-Organic Framework Acts as a Hydrogen Evolution Cocatalyst for Overall Photocatalytic Water Splitting. <i>ACS Catalysis</i> , 2022, 12, 3881-3889.	11.2	32
16	Design of nitrogen-doped layered tantalates for non-sacrificial and selective hydrogen evolution from water under visible light. <i>Journal of Materials Chemistry A</i> , 2016, 4, 14444-14452.	10.3	29
17	Sillars Aurivillius-related Oxychloride Bi ₆ NbWO ₁₄ Cl as a Stable O ₂ -evolving Photocatalyst in Z-scheme Water Splitting under Visible Light. <i>Chemistry Letters</i> , 2017, 46, 583-586.	1.3	28
18	Synthesis, band structure and photocatalytic properties of Sillars Aurivillius oxychlorides BaBi ₅ Ti ₃ O ₁₄ Cl, Ba ₂ Bi ₅ Ti ₄ O ₁₇ Cl and Ba ₃ Bi ₅ Ti ₅ O ₂₀ Cl with triple-, quadruple- and quintuple-perovskite layers. <i>Journal of Materials Chemistry A</i> , 2021, 9, 8332-8340.	10.3	22

#	ARTICLE	IF	CITATIONS
19	Improved Photocatalytic Water Oxidation with Fe ³⁺ /Fe ²⁺ Redox on Rectangular-shaped WO ₃ Particles with Specifically Exposed Crystal Faces via Hydrothermal Synthesis. <i>Chemistry Letters</i> , 2017, 46, 221-224.	1.3	21
20	Molybdenum-substituted polyoxometalate as stable shuttle redox mediator for visible light driven Z-scheme water splitting system. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018, 356, 347-354.	3.9	20
21	Improved visible-light activity of nitrogen-doped layered niobate photocatalysts by NH ₃ -nitridation with KCl flux. <i>Applied Catalysis B: Environmental</i> , 2018, 232, 49-54.	20.2	19
22	Z-scheme Water Splitting into H ₂ and O ₂ Using Tungstic Acid as an Oxygen-evolving Photocatalyst under Visible Light Irradiation. <i>Chemistry Letters</i> , 2015, 44, 1134-1136.	1.3	17
23	Manipulation of charge carrier flow in Bi ₄ NbO ₈ Cl nanoplate photocatalyst with metal loading. <i>Chemical Science</i> , 2022, 13, 3118-3128.	7.4	17
24	Enhanced oxygen evolution on visible light responsive TaON photocatalysts co-loaded with highly active Ru species for IO ₃ ⁻ reduction and Co species for water oxidation. <i>Sustainable Energy and Fuels</i> , 2017, 1, 748-754.	4.9	15
25	Enhanced H ₂ Evolution on ZnIn ₂ S ₄ Photocatalyst under Visible Light by Surface Modification with Metal Cyanoferrates. <i>Chemistry Letters</i> , 2018, 47, 941-944.	1.3	15
26	Effective strategy for enhancing Z-scheme water splitting with the IO ₃ ⁻ /I ⁻ redox mediator by using a visible light responsive TaON photocatalyst co-loaded with independently optimized two different cocatalysts. <i>Sustainable Energy and Fuels</i> , 2019, 3, 1501-1508.	4.9	15
27	Solvothermal Synthesis of Ca ₂ Nb ₂ O ₇ Fine Particles and Their High Activity for Photocatalytic Water Splitting into H ₂ and O ₂ under UV Light Irradiation. <i>Chemistry Letters</i> , 2015, 44, 1001-1003.	1.3	14
28	Porous TaON Photoanodes Loaded with Cobalt-Based Cocatalysts for Efficient and Stable Water Oxidation Under Visible Light. <i>Topics in Catalysis</i> , 2016, 59, 740-749.	2.8	12
29	Triple-layered Sillars Aurivillius Perovskite Oxychloride Bi ₅ PbTi ₃ O ₁₄ Cl as a Visible-light-responsive Photocatalyst for Water Splitting. <i>Chemistry Letters</i> , 2020, 49, 978-981.	1.3	11
30	PbBi ₃ O ₄ X ₃ (X = Cl, Br) with Single/Double Halogen Layers as a Photocatalyst for Visible-Light-Driven Water Splitting: Impact of a Halogen Layer on the Band Structure and Stability. <i>Chemistry of Materials</i> , 2021, 33, 9580-9587.	6.7	11
31	Fabrication of CuInS ₂ photocathodes on carbon microfiber felt by arc plasma deposition for efficient water splitting under visible light. <i>Sustainable Energy and Fuels</i> , 2017, 1, 699-709.	4.9	10
32	Mono-transition-metal-substituted polyoxometalates as shuttle redox mediator for Z-scheme water splitting under visible light. <i>Sustainable Energy and Fuels</i> , 2022, 6, 664-673.	4.9	9
33	A new lead-free Sillars Aurivillius oxychloride Bi ₅ SrTi ₃ O ₁₄ Cl with triple-perovskite layers for photocatalytic water splitting under visible light. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2021, 408, 113095.	3.9	8
34	Earth-abundant iron(III) species serves as a cocatalyst boosting the multielectron reduction of IO ₃ ⁻ /I ⁻ redox shuttle in Z-scheme photocatalytic water splitting. <i>Journal of Materials Chemistry A</i> , 2021, 9, 11718-11725.	10.3	8
35	Application of carbon microfiber felts as three-dimensional conductive substrate for efficient photoanodes of tungsten(VI) oxide. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 375, 54-63.	3.9	6
36	Controlling the carrier density in niobium oxynitride BaNbO ₂ N via cation doping for efficient photoelectrochemical water splitting under visible light. <i>Sustainable Energy and Fuels</i> , 2021, 5, 6181-6188.	4.9	6

#	ARTICLE	IF	CITATIONS
37	The first example of an oxide semiconductor photocatalyst consisting of a heptavalent cation: visible-light-induced water oxidation on $M_3\text{ReO}_8$. Journal of Materials Chemistry A, 2018, 6, 1991-1994.	10.3	5
38	Improved Activity of Hydrothermally-prepared WO_3 Photocatalysts by Sodium Salt Additives. Chemistry Letters, 2018, 47, 985-988.	1.3	5
39	Polyoxocationic antimony oxide cluster with acidic protons. Science Advances, 2022, 8, .	10.3	5
40	Cobalt hexacyanoferrate as an effective cocatalyst boosting water oxidation on oxynitride TaON photocatalyst under visible light. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 426, 113753.	3.9	4
41	Visible-Light-Responsive Oxyhalide PbBiO_2Cl Photoelectrode: On-Site Flux Synthesis on a Fluorine-Doped Tin Oxide Electrode. ACS Applied Materials & Interfaces, 2021, 13, 5176-5183.	8.0	2
42	Improved water oxidation activity of a $\text{SrBi}_3\text{O}_4\text{Cl}_3$ photocatalyst by flux method with an appropriate binary-component molten salt. Sustainable Energy and Fuels, 2022, 6, 3263-3270.	4.9	1