Shin-ichi Sasaki

List of Publications by Year
in descending order

64 papers	1,816 citations	257450 24 h-index	276875 41 g-index
64 all docs	64 docs citations	64 times ranked	1441 citing authors

#	Article	IF	Citations
1	Chlorophyll Derivative-Sensitized TiO₂ Electron Transport Layer for Record Efficiency of Cs₂AgBiBr₆ Double Perovskite Solar Cells. Journal of the American Chemical Society, 2021, 143, 2207-2211.	13.7	154
2	Chlorophyll-<i>a</i>Derivatives with Various Hydrocarbon Ester Groups for Efficient Dye-Sensitized Solar Cells: Static and Ultrafast Evaluations on Electron Injection and Charge Collection Processes. Langmuir, 2010, 26, 6320-6327.	3.5	118
3	Efficient Dye-Sensitized Solar Cell Based on <i>oxo</i>-Bacteriochlorin Sensitizers with Broadband Absorption Capability. Journal of Physical Chemistry C, 2009, 113, 7954-7961.	3.1	95
4	Dye-sensitized solar cells using a chlorophyll a derivative as the sensitizer and carotenoids having different conjugation lengths as redox spacers. Chemical Physics Letters, 2005, 408, 409-414.	2.6	86
5	Effects of plant carotenoid spacers on the performance of a dye-sensitized solar cell using a chlorophyll derivative: Enhancement of photocurrent determined by one electron-oxidation potential of each carotenoid. Chemical Physics Letters, 2006, 423, 470-475.	2.6	86
6	Extension of Ï€-conjugation length along the Qy axis of a chlorophyll a derivative for efficient dye-sensitized solar cells. Chemical Communications, 2009, , 1523.	4.1	72
7	Synthesis and Optical Properties of Bacteriochlorophyll-aDerivatives Having Various C3 Substituents on the Bacteriochlorin Ï€-System. Journal of Organic Chemistry, 2006, 71, 2648-2654.	3.2	66
8	Dopantâ€Free Zinc Chlorophyll Aggregates as an Efficient Biocompatible Hole Transporter for Perovskite Solar Cells. ChemSusChem, 2016, 9, 2862-2869.	6.8	58
9	Photoactive Znâ€Chlorophyll Hole Transporterâ€Sensitized Leadâ€Free Cs₂AgBiBr₆ Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000166.	5.8	58
10	Dyad Sensitizer of Chlorophyll with Indoline Dye for Panchromatic Photocatalytic Hydrogen Evolution. ACS Applied Energy Materials, 2018, 1, 2813-2820.	5.1	51
11	Chlorosomeâ€Like Molecular Aggregation of Chlorophyll Derivative on Ti₃C₂T<i>_x</i> MXene Nanosheets for Efficient Noble Metalâ€Free Photocatalytic Hydrogen Evolution. Advanced Materials Interfaces, 2020, 7, 1902080.	3.7	49
12	Bilayer Chlorophyll-Based Biosolar Cells Inspired from the Z-Scheme Process of Oxygenic Photosynthesis. ACS Energy Letters, 2018, 3, 1708-1712.	17.4	46
13	Semisynthetic Chlorophyll Derivatives Toward Solar Energy Applications. Solar Rrl, 2020, 4, 2000162.	5.8	43
14	Synthesis and Anion-Selective Complexation of Homobenzylic Tripodal Thiourea Derivatives. European Journal of Organic Chemistry, 2007, 2007, 607-615.	2.4	42
15	Development of Solar Cells Based on Synthetic Near-Infrared Absorbing Purpurins: Observation of Multiple Electron Injection Pathways at Cyclic Tetrapyrroleâ€"Semiconductor Interface. Journal of Physical Chemistry C, 2011, 115, 24394-24402.	3.1	41
16	Dependence of Photocurrent and Conversion Efficiency of Titania-Based Solar Cell on the Q<i>_y</i> Absorption and One Electron-Oxidation Potential of Pheophorbide Sensitizer. Journal of Physical Chemistry C, 2008, 112, 4418-4426.	3.1	40
17	Molecular engineering on a chlorophyll derivative, chlorin e6, forÂsignificantly improved power conversion efficiency in dye-sensitized solar cells. Journal of Power Sources, 2013, 242, 860-864.	7.8	35
18	Zinc chlorophyll aggregates as hole transporters for biocompatible, natural-photosynthesis-inspired solar cells. Journal of Power Sources, 2015, 297, 519-524.	7.8	34

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19	Near-infrared absorption carboxylated chlorophyll-a derivatives for biocompatible dye-sensitized hydrogen evolution. International Journal of Hydrogen Energy, 2017, 42, 15731-15738.	7.1	33
20	Trilayer Chlorophyll-Based Cascade Biosolar Cells. ACS Energy Letters, 2019, 4, 384-389.	17.4	32
21	Natural-photosynthesis-inspired photovoltaic cells using carotenoid aggregates as electron donors and chlorophyll derivatives as electron acceptors. RSC Advances, 2015, 5, 45755-45759.	3.6	31
22	Cooperative C3â€•and C13â€•Substituent Effects on Synthetic Chlorophyll Derivatives. European Journal of Organic Chemistry, 2010, 2010, 5287-5291.	2.4	30
23	A Facile Synthetic Method for Conversion of Chlorophyll-a to Bacteriochlorophyll-c. Journal of Organic Chemistry, 2007, 72, 4566-4569.	3.2	29
24	Effects of Cyclic Tetrapyrrole Rings of Aggregate-Forming Chlorophyll Derivatives as Hole-Transporting Materials on Performance of Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 9-16.	5.1	27
25	Synthesis of carboxylated chlorophylls and their application as functional materials. Journal of Porphyrins and Phthalocyanines, 2015, 19, 517-526.	0.8	25
26	Chlorophyllâ€•Based Organic Heterojunction on Ti₃C₂T_{<i>x</i>} MXene Nanosheets for Efficient Hydrogen Production. Chemistry - A European Journal, 2021, 27, 5277-5282.	3.3	25
27	Dicyano-functionalized chlorophyll derivatives with ambipolar characteristic for organic photovoltaics. Organic Electronics, 2013, 14, 1972-1979.	2.6	21
28	Aggregate-forming semi-synthetic chlorophyll derivatives / Ti3C2T MXene hybrids for photocatalytic hydrogen evolution. Dyes and Pigments, 2021, 194, 109583.	3.7	21
29	Development of Solar Cells Based on Synthetic Near-Infrared Absorbing Purpurins 2: Use of Fullerene and Its Derivative As Electron Acceptors for Favorable Charge Separation. Journal of Physical Chemistry C, 2012, 116, 21244-21254.	3.1	18
30	Near-infrared absorption bacteriochlorophyll derivatives as biomaterial electron donor for organic solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 347, 49-54.	3.9	18
31	Biosupramolecular bacteriochlorin aggregates as hole-transporters for perovskite solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 353, 639-644.	3.9	18
32	Perovskite solar cells based on chlorophyll hole transporters: Dependence of aggregation and photovoltaic performance on aliphatic chains at C17-propionate residue. Dyes and Pigments, 2019, 162, 763-770.	3.7	18
33	Chlorophyllâ€•Based Organicâ€“Inorganic Heterojunction Solar Cells. Chemistry - A European Journal, 2017, 23, 10886-10892.	3.3	17
34	Chlorophyll-based organic solar cells with improved power conversion efficiency. Journal of Energy Chemistry, 2019, 38, 88-93.	12.9	17
35	A chlorophyll derivative-based bio-solar energy conversion and storage device. Electrochimica Acta, 2020, 347, 136283.	5.2	17
36	Semiâ€•Synthetic Chlorophyllâ€•Carotenoid Dyad for Dyeâ€•Sensitized Photocatalytic Hydrogen Evolution. Advanced Materials Interfaces, 2021, 8, 2101303.	3.7	17

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37	Synthesis of cyclic chlorophyll oligomers. Tetrahedron Letters, 2006, 47, 4965-4968.	1.4	16
38	Bilayer chlorophyll derivatives as efficient hole-transporting layers for perovskite solar cells. Materials Chemistry Frontiers, 2019, 3, 2357-2362.	5.9	16
39	Esterification of Indoline-Based Small-Molecule Donors for Efficient Co-evaporated Organic Photovoltaics. Journal of Physical Chemistry C, 2014, 118, 14785-14794.	3.1	15
40	Chlorophyll derivatives/MXene hybrids for photocatalytic hydrogen evolution: Dependence of performance on the central coordinating metals. International Journal of Hydrogen Energy, 2022, 47, 3824-3833.	7.1	14
41	Generation of carotenoid radical cation in the vicinity of a chlorophyll derivative bound to titanium oxide, upon excitation of the chlorophyll derivative to the Qy state, as identified by time-resolved absorption spectroscopy. Chemical Physics Letters, 2005, 416, 229-233.	2.6	13
42	Chlorophyll- and Bacteriochlorophyll-Derived Colorimetric Chemosensors for Amine Detection. Bulletin of the Chemical Society of Japan, 2009, 82, 267-271.	3.2	13
43	Organic Solar Cells Based on the Aggregate of Synthetic Chlorophyll Derivative with over 5% Efficiency. Solar Rrl, 2019, 3, 1900203.	5.8	13
44	Rotational isomerization of 3-substituents in synthetic chlorophyll derivatives. Tetrahedron, 2016, 72, 6626-6633.	1.9	11
45	Enhancement of performance in chlorophyll-based bulk-heterojunction organic-inorganic solar cells upon aggregate management via solvent engineering. Organic Electronics, 2018, 59, 419-426.	2.6	11
46	Gallium(III) complexes of methyl pyropheophorbide-a as synthetic models for investigation of diastereomerically controlled axial ligation towards chlorophylls. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 1168-1171.	2.2	10
47	Synthesis of Chl@Ti3C2 composites as an anode material for lithium storage. Frontiers of Chemical Science and Engineering, 2021, 15, 709-716.	4.4	10
48	Hydroquinone redox mediator enhances the photovoltaic performances of chlorophyll-based bio-inspired solar cells. Communications Chemistry, 2021, 4, .	4.5	10
49	Chlorophyll derivative intercalation into Nb2C MXene for lithium-ion energy storage. Journal of Materials Science, 2022, 57, 9971-9979.	3.7	10
50	Chlorophyll derivative sensitized monolayer Ti3C2T MXene nanosheets for photocatalytic hydrogen evolution. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 427, 113792.	3.9	10
51	Ti₃C₂T_{<i>x</i>} MXene nanosheets hybridized with bacteriochlorinâ€“carotenoid conjugates for photocatalytic hydrogen evolution. New Journal of Chemistry, 2022, 46, 2166-2177.	2.8	8
52	Charge Generation and Transfer Mechanism of Bilayer Organic Photovoltaics with Unconventional Energy Alignment. Journal of Physical Chemistry C, 2021, 125, 25680-25686.	3.1	7
53	Charge transfer dynamics in chlorophyll-based biosolar cells. Physical Chemistry Chemical Physics, 2019, 21, 22563-22568.	2.8	6
54	P-type P3HT interfacial layer induced performance improvement in chlorophyll-based solid-state solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 371, 349-354.	3.9	6

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55	Electropolymerized chlorophyll derivative biopolymers for supercapacitors. Chemical Engineering Journal, 2022, 450, 138000.	12.7	6
56	Effect of the Fabrication Method of Chlorophyllâ€Ti₃C₂T_{<i>x</i>}â€Based Photocatalysts on Noble Metalâ€Free Hydrogen Evolution. Energy Technology, 2022, 10, 2100713.	3.8	5
57	Determination of glycosylated albumin using surface plasmon resonance sensor. Bunseki Kagaku, 2003, 52, 311-317.	0.2	4
58	Evaluation of covalently linked (bacterio)chlorin-fullerenes as components for organic solar cells. Journal of Porphyrins and Phthalocyanines, 2020, 24, 200-210.	0.8	4
59	Synthesis of C3/C13â€Substituted Semiâ€Synthetic Bacteriochlorophyllâ€<i>a</i> Derivatives and Their Properties as Functional Dyes. ChemPhotoChem, 2020, 4, 5399-5407.	3.0	3
60	Supercapacitor electrodes based on electropolymerized protoporphyrins. Materials Today Energy, 2021, 21, 100830.	4.7	3
61	Quasi-Bilayer All-Small-Molecule Solar Cells Based on a Chlorophyll Derivative and Non-Fullerene Materials with Untraditional Energy Alignments. Journal of Physical Chemistry C, 2022, 126, 4807-4814.	3.1	2
62	Charge-Transfer Mechanism in Chlorophyll Derivative-based Biosolar Cells with Hole-Transporting P3HT Revealed by Sub-Picosecond Transient Absorption Spectroscopy. Journal of Physical Chemistry C, 2020, 124, 27900-27906.	3.1	1
63	Bacteriochlorin aggregates as dopant-free hole-transporting materials for perovskite solar cells. Organic Electronics, 2022, 108, 106596.	2.6	1
64	Enhancement of power conversion efficiency by chlorophyll and carotenoid co-sensitization in the biosolar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 431, 114042.	3.9	0