

Hugo Scheer

List of Publications by Year in descending order

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83
papers

3,401
citations

136950

32
h-index

155660

55
g-index

84
all docs

84
docs citations

84
times ranked

2270
citing authors

#	ARTICLE	IF	CITATIONS
1	A Red-Shifted Chlorophyll. <i>Science</i> , 2010, 329, 1318-1319.	12.6	437
2	Metal-Substituted Bacteriochlorophylls. 1. Preparation and Influence of Metal and Coordination on Spectra. <i>Journal of the American Chemical Society</i> , 1998, 120, 3675-3683.	13.7	163
3	An Overview of Chlorophylls and Bacteriochlorophylls: Biochemistry, Biophysics, Functions and Applications. , 2006, , 1-26.		129
4	Excitation transfer in C-phycoyanin. First transfer rate and exciton calculations based on new crystal structure data for C-phycoyanin from <i>Agmenellum quadruplicatum</i> and <i>Mastigocladus laminosus</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1988, 936, 157-170.	1.0	106
5	Phycobilin:cystein-84 biliprotein lyase, a near-universal lyase for cysteine-84-binding sites in cyanobacterial phycobiliproteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 14300-14305.	7.1	105
6	FIRST TRANSFER CALCULATIONS BASED ON CRYSTAL STRUCTURE DATA FROM <i>Agmenellum quadruplicatum</i> C-PHYCOYANIN. <i>Photochemistry and Photobiology</i> , 1987, 46, 427-440.	2.5	100
7	Biliproteine. <i>Angewandte Chemie</i> , 1981, 93, 230-250.	2.0	94
8	Cyclic endoperoxides of β^2 -carotene, potential pro-oxidants, as products of chemical quenching of singlet oxygen. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2005, 1709, 1-4.	1.0	93
9	Characterization of red-shifted phycobilisomes isolated from the chlorophyll f -containing cyanobacterium <i>Halomicronema hongdechloris</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 107-114.	1.0	91
10	Chromophore Attachment to Biliproteins: Specificity of PecE/PecF, a Lyase-Isomerase for the Photoactive 31-Cys-84-phycoviolobilin Chromophore of Phycoerythrocyanin. <i>Biochemistry</i> , 2001, 40, 12444-12456.	2.5	83
11	The structure of allophycoyanin B from <i>Synechocystis</i> PCC 6803 reveals the structural basis for the extreme redshift of the terminal emitter in phycobilisomes. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2014, 70, 2558-2569.	2.5	83
12	Phycourobilin in Trichromatic Phycocyanin from Oceanic Cyanobacteria Is Formed Post-translationally by a Phycoerythrobilin Lyase-Isomerase. <i>Journal of Biological Chemistry</i> , 2009, 284, 9290-9298.	3.4	79
13	Fused Gene Approach to Photoswitchable and Fluorescent Biliproteins. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 5456-5458.	13.8	76
14	Reconstitution of phycobilisome core membrane linker, LCM, by autocatalytic chromophore binding to ApcE. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2005, 1706, 81-87.	1.0	69
15	The terminal phycobilisome emitter, L _{CM} : A light-harvesting pigment with a phytochrome chromophore. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 15880-15885.	7.1	69
16	Metal-Substituted Bacteriochlorophylls. 2. Changes in Redox Potentials and Electronic Transition Energies Are Dominated by Intramolecular Electrostatic Interactions. <i>Journal of the American Chemical Society</i> , 1998, 120, 3684-3693.	13.7	68
17	Chromophore Attachment to Phycobiliprotein β^2 -Subunits. <i>Journal of Biological Chemistry</i> , 2006, 281, 8573-8581.	3.4	65
18	Lyase Activities of CpcS- and CpcT-like Proteins from <i>Nostoc</i> PCC7120 and Sequential Reconstitution of Binding Sites of Phycoerythrocyanin and Phycocyanin β^2 -Subunits. <i>Journal of Biological Chemistry</i> , 2007, 282, 34093-34103.	3.4	65

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19	The Pigments. <i>Advances in Photosynthesis and Respiration</i> , 2003, , 29-81.	1.0	64
20	Novel activity of a phycobiliprotein lyase: both the attachment of phycocyanobilin and the isomerization to phycoviolobin are catalyzed by the proteins PecE and PecF encoded by the phycoerythrocyanin operon. <i>FEBS Letters</i> , 2000, 469, 9-13.	2.8	63
21	A rising tide of blue-absorbing biliprotein photoreceptors – characterization of seven such bilin-binding GAF domains in <i>Nostoc</i> sp. PCC 7120. <i>FEBS Journal</i> , 2012, 279, 4095-4108.	4.7	63
22	Unfolding of C-phycocyanin followed by loss of non-covalent chromophore-protein interactions. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2008, 1777, 94-103.	1.0	58
23	Time-Resolved Spectral Investigation of Bacteriochlorophyll a and Its Transmetalated Derivatives [Zn]-Bacteriochlorophyll a and [Pd]-Bacteriochlorophyll a. <i>Journal of Physical Chemistry B</i> , 1998, 102, 8336-8342.	2.6	57
24	Type I and type II reversible photochemistry of phycoerythrocyanin β -subunit from <i>Mastigocladus laminosus</i> both involve Z, E isomerization of phycoviolobin chromophore and are controlled by sulfhydryls in apoprotein. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1995, 1228, 244-253.	1.0	51
25	Photodynamics of the Bacteriochlorophyll-Carotenoid System. 2. Influence of Central Metal, Solvent and β -Carotene on Photobleaching of Bacteriochlorophyll Derivatives. <i>Photochemistry and Photobiology</i> , 2002, 76, 145.	2.5	50
26	Photostability of Bacteriochlorophyll a and Derivatives: Potential Sensitizers for Photodynamic Tumor Therapy. <i>Photochemistry and Photobiology</i> , 2006, 82, 770.	2.5	50
27	Adapting photosynthesis to the near-infrared: non-covalent binding of phycocyanobilin provides an extreme spectral red-shift to phycobilisome core-membrane linker from <i>Synechococcus</i> sp. PCC7335. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 688-694.	1.0	42
28	Pyropheophytin a Accompanies Pheophytin a in Darkened Light Grown Cells of <i>Euglena</i> . <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 1981, 36, 827-833.	1.4	41
29	Optical Absorption and Computational Studies of [Ni]-Bacteriochlorophyll-a. New Insight into Charge Distribution between Metal and Ligands. <i>Journal of the American Chemical Society</i> , 2000, 122, 3937-3944.	13.7	38
30	Photodynamics of the Bacteriochlorophyll-Carotenoid System. 1. Bacteriochlorophyll-photosensitized Oxygenation of β -Carotene in Acetone. <i>Photochemistry and Photobiology</i> , 2001, 74, 64.	2.5	38
31	Structures and enzymatic mechanisms of phycobiliprotein lyases CpcE/F and PecE/F. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 13170-13175.	7.1	37
32	Photochromic Biliproteins from the Cyanobacterium <i>Anabaena</i> sp. PCC 7120: Lyase Activities, Chromophore Exchange, and Photochromism in Phytochrome A. <i>Biochemistry</i> , 2004, 43, 11576-11588.	2.5	35
33	(18 O) and mass spectrometry in chlorophyll research: Derivation and loss of oxygen atoms at the periphery of the chlorophyll macrocycle during biosynthesis, degradation and adaptation. , 2000, 66, 159-175.		34
34	Epimerization of Chlorophyll Derivatives. V. Effects of the Central Magnesium and Ring Substituents on the Epimerization of Chlorophyll Derivatives. <i>Bulletin of the Chemical Society of Japan</i> , 1992, 65, 3080-3087.	3.2	33
35	Structure and Mechanism of the Phycobiliprotein Lyase CpcT. <i>Journal of Biological Chemistry</i> , 2014, 289, 26677-26689.	3.4	33
36	Chromophore attachment in phycocyanin. Functional amino acids of phycocyanobilin - α -phycocyanin lyase and evidence for chromophore binding. <i>FEBS Journal</i> , 2006, 273, 1262-1274.	4.7	32

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37	New peripheral metal complexes related to chlorophyll. <i>Journal of the American Chemical Society</i> , 1975, 97, 3273-3275.	13.7	31
38	Towards a more accurate future for chlorophyll a and b determinations: the inaccuracies of Daniel Arnon's assay. <i>Photosynthesis Research</i> , 2019, 140, 215-219.	2.9	30
39	Amino Acid Residues Associated with Enzymatic Activities of the Isomerizing Phycoviolobin-lyase PecE/F. <i>Biochemistry</i> , 2005, 44, 8126-8137.	2.5	28
40	Studies on Plant Bile Pigments, II. Chemical and Photochemical Oxygenation of a Phytochrome PrChromophore Model Pigment to Purpurins. <i>Hoppe-Seyler's Zeitschrift für Physiologische Chemie</i> , 1977, 358, 185-196.	1.6	27
41	Nonenzymatic chromophore attachment in biliproteins: conformational control by the detergent Triton X-100. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2004, 1657, 131-145.	1.0	26
42	Biliprotein Chromophore Attachment. <i>Journal of Biological Chemistry</i> , 2007, 282, 25357-25366.	3.4	25
43	Femtosecond spectral and anisotropy study of excitation energy transfer between neighbouring λ -80 and λ -81 chromophores of allophycocyanin trimers. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1994, 1188, 349-356.	1.0	24
44	Characterization of phycoviolobin phycoerythrocyanin- λ -84-cystein-lyase-(isomerizing) from <i>Mastigocladus laminosus</i> . <i>FEBS Journal</i> , 2002, 269, 4542-4550.	0.2	24
45	A minimal phycobilisome: Fusion and chromophorylation of the truncated core-membrane linker and phycocyanin. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2012, 1817, 1030-1036.	1.0	22
46	Far-red light photoacclimation: Chromophorylation of FR induced λ - and λ -subunits of allophycocyanin from <i>Chroococcidiopsis thermalis</i> sp. PCC7203. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 1607-1616.	1.0	22
47	Bimodal Intramolecular Excitation Energy Transfer in a Multichromophore Photosynthetic Model System: Hybrid Fusion Proteins Comprising Natural Phycobilin- and Artificial Chlorophyll-Binding Domains. <i>Journal of the American Chemical Society</i> , 2013, 135, 13479-13487.	13.7	20
48	Myoglobin with modified tetrapyrrole chromophores: Binding specificity and photochemistry. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2006, 1757, 750-763.	1.0	19
49	Chromophore assignment in phycoerythrocyanin from <i>Mastigocladus laminosus</i> . <i>Photosynthesis Research</i> , 1997, 54, 25-34.	2.9	17
50	Iron-Sulfur Cluster-dependent Catalysis of Chlorophyllide a Oxidoreductase from <i>Roseobacter denitrificans</i> . <i>Journal of Biological Chemistry</i> , 2015, 290, 1141-1154.	3.4	17
51	ENDOR Spectroscopy of the Chlorophylls and the Photosynthetic Light Conversion Apparatus. , 1979, , 159-195.		15
52	Catalytic Mechanism of S-type Phycobiliprotein Lyase. <i>Journal of Biological Chemistry</i> , 2009, 284, 36405-36414.	3.4	15
53	Completing the hypusine pathway in <i>Plasmodium</i> . <i>FEBS Journal</i> , 2009, 276, 5881-5891.	4.7	15
54	Far-red acclimating cyanobacterium as versatile source for bright fluorescent biomarkers. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2018, 1865, 1649-1656.	4.1	15

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55	Myoglobin with chlorophyllous chromophores: Influence on protein stability. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2007, 1767, 897-904.	1.0	14
56	Toward a Mechanism for Biliprotein Lyases: Revisiting Nucleophilic Addition to Phycocyanobilin. <i>Journal of the American Chemical Society</i> , 2009, 131, 5399-5401.	13.7	14
57	Biliproteins and their Applications in Bioimaging. <i>Procedia Chemistry</i> , 2015, 14, 176-185.	0.7	14
58	Fast preparative isoelectric focusing of phycocyanin subunits in layers of granulated gels. <i>Electrophoresis</i> , 1987, 8, 335-336.	2.4	13
59	Model for the phycobilisome rod with interlocking disks based on domain-weighted linker-polypeptide sequence homologies of <i>Mastigocladus laminosus</i> . <i>International Journal of Photoenergy</i> , 2000, 2, 31-40.	2.5	13
60	Modular generation of fluorescent phycobiliproteins. <i>Photochemical and Photobiological Sciences</i> , 2013, 12, 1036-1040.	2.9	13
61	Broadened Substrate Specificity of 3-Hydroxyethyl Bacteriochlorophyllide a Dehydrogenase (BchC) Indicates a New Route for the Biosynthesis of Bacteriochlorophyll a. <i>Journal of Biological Chemistry</i> , 2015, 290, 19697-19709.	3.4	13
62	Reconstitution of an Allophycocyanin Trimer Complex Containing the C-Terminal 21-23 kDa Domain of the Core-Membrane Linker Polypeptide Lcm. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 1994, 49, 331-336.	1.4	11
63	Energy transfer in monomeric phycoerythrocyanin. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2004, 1608, 35-44.	1.0	11
64	Distribution of Chlorophyll a and Bacteriochlorophyll a derived Photosensitizers in Human Blood Plasma. <i>Photochemistry and Photobiology</i> , 2010, 86, 182-193.	2.5	11
65	Intermediate binding of phycocyanobilin to the lyase, CpeS1, and transfer to apoprotein. <i>Photosynthesis Research</i> , 2008, 95, 163-168.	2.9	10
66	Bright near-infrared fluorescence bio-labeling with a biliprotein triad. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2019, 1866, 277-284.	4.1	10
67	Circular dichroism of C-Phycocyanin: Origin of Optical Activity in Denatured Biliproteins and Evidence for an Intermediate during Unfolding. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 1983, 38, 353-358.	1.4	7
68	Spectral Diffusion Experiment with a Denatured Protein. <i>Journal of Physical Chemistry B</i> , 2004, 108, 1109-1114.	2.6	7
69	A Simple Preparation Method for Phytochromobilin. <i>Photochemistry and Photobiology</i> , 2017, 93, 675-680.	2.5	7
70	From δ -aminolevulinic acid to chlorophylls and every step in between: in memory of Constantin (Tino) A. Rebeiz, 1936-2019. <i>Photosynthesis Research</i> , 2020, 145, 71-82.	2.9	7
71	Photochemistry of Bacteriochlorophylls in Human Blood Plasma: 1. Pigment Stability and Light-Induced Modifications of Lipoproteins. <i>Photochemistry and Photobiology</i> , 2010, 86, 331-341.	2.5	5
72	Chlorophyll breakdown in aquatic ecosystems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 17311-17312.	7.1	5

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73	Chlorophylls: A Personal Snapshot. <i>Molecules</i> , 2022, 27, 1093.	3.8	5
74	Inhibition of Aggregation of [Pd]-Bacteriochlorophyllides in Mesoporous Silica. <i>Langmuir</i> , 2009, 25, 11988-11992.	3.5	4
75	Phycobiliproteins. <i>Handbook of Porphyrin Science</i> , 2012, , 1-66.	0.8	4
76	De novo Designed Bacteriochlorophyll-Binding Helix-Bundle Proteins. <i>Advances in Photosynthesis and Respiration</i> , 2009, , 895-912.	1.0	3
77	Photochemistry of Bacteriochlorophylls in Human Blood Plasma: 2. Reaction Mechanism Investigated by Product Analysis and Deuterium Isotope Effect. <i>Photochemistry and Photobiology</i> , 2010, 86, 342-352.	2.5	2
78	Phycobiliproteins. , 2011, , 375-411.		2
79	Axial Ligand Coordination and Photodissociation of Nickel Substituted Bacteriochlorophyll-a. , 1998, , 4225-4228.		2
80	Perspectives on future directions. , 0, , 609-624.		1
81	Thermal Stability of $\hat{\pm}$ -Phycocerythrocyanin. <i>Procedia Chemistry</i> , 2015, 14, 138-145.	0.7	1
82	A tribute to Robert John Porra (august 7, 1931â€“may 16, 2019). <i>Photosynthesis Research</i> , 2021, 147, 125-130.	2.9	1
83	Wolfgang Haehnel 20.1.1944-13.5.2013. <i>Photosynthesis Research</i> , 2014, 120, 247-248.	2.9	0