

# Frantisek Vacha

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3228033/publications.pdf>

Version: 2024-02-01

75  
papers

1,552  
citations

279487

23  
h-index

360668

35  
g-index

76  
all docs

76  
docs citations

76  
times ranked

1618  
citing authors

#	ARTICLE	IF	CITATIONS
1	Photochemistry and spectroscopy of a five-chlorophyll reaction center of photosystem II isolated by using a Cu affinity column.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 2929-2933.	3.3	103
2	Two-Dimensional Electronic Spectroscopy Reveals Ultrafast Energy Diffusion in Chlorosomes. Journal of the American Chemical Society, 2012, 134, 11611-11617.	6.6	101
3	Cyanobacterial Small Chlorophyll-binding Protein ScpD (HliB) Is Located on the Periphery of Photosystem II in the Vicinity of PsbH and CP47 Subunits. Journal of Biological Chemistry, 2006, 281, 32705-32713.	1.6	68
4	Light Emission Performance of Silicon Nanocrystals Deduced from Single Quantum Dot Spectroscopy. Advanced Functional Materials, 2008, 18, 2666-2672.	7.8	64
5	Organisation of Photosystem I and Photosystem II in red alga <i>Cyanidium caldarium</i> : Encounter of cyanobacterial and higher plant concepts. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 725-731.	0.5	55
6	Absorption Linear Dichroism Measured Directly on a Single Light-Harvesting System: The Role of Disorder in Chlorosomes of Green Photosynthetic Bacteria. Journal of the American Chemical Society, 2011, 133, 6703-6710.	6.6	53
7	Molecular basis of chromatic adaptation in pennate diatom <i>Phaeodactylum tricornutum</i> . Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 534-543.	0.5	50
8	Colloidal suspensions of silicon nanocrystals: from single nanocrystals to photonic structures. Optical Materials, 2005, 27, 1046-1049.	1.7	39
9	Novel type of red-shifted chlorophyll a antenna complex from <i>Chromera velia</i> : II. Biochemistry and spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 802-810.	0.5	37
10	Excited state properties of aryl carotenoids. Physical Chemistry Chemical Physics, 2010, 12, 3112.	1.3	33
11	The lamellar spacing in self-assembling bacteriochlorophyll aggregates is proportional to the length of the esterifying alcohol. Photosynthesis Research, 2010, 104, 211-219.	1.6	31
12	Red-light phenotype in a marine diatom involves a specialized oligomeric red-shifted antenna and altered cell morphology. Scientific Reports, 2017, 7, 11976.	1.6	31
13	Towards characterization of DNA structure under physiological conditions in vivo at the single-molecule level using single-pair FRET. Nucleic Acids Research, 2012, 40, e121-e121.	6.5	29
14	Light harvesting complexes of <i>Chromera velia</i> , photosynthetic relative of apicomplexan parasites. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 723-729.	0.5	29
15	Unraveling the nature of coherent beatings in chlorosomes. Journal of Chemical Physics, 2014, 140, 115103.	1.2	29
16	Novel structural aspect of the diatom thylakoid membrane: lateral segregation of photosystem I under red-enhanced illumination. Scientific Reports, 2016, 6, 25583.	1.6	28
17	Antenna ring around trimeric Photosystem I in chlorophyll b containing cyanobacterium <i>Prochlorothrix hollandica</i> . Biochimica Et Biophysica Acta - Bioenergetics, 2005, 1708, 1-5.	0.5	27
18	Spectroscopic characterization of a 5 Chl a photosystem II reaction center complex. Biochimica Et Biophysica Acta - Bioenergetics, 1997, 1318, 266-274.	0.5	26

#	ARTICLE	IF	CITATIONS
19	$\beta$ -Carotene to bacteriochlorophyll c energy transfer in self-assembled aggregates mimicking chlorosomes. <i>Chemical Physics</i> , 2010, 373, 90-97.	0.9	26
20	Electron microscopy in structural studies of Photosystem II. <i>Photosynthesis Research</i> , 2003, 77, 1-19.	1.6	25
21	2D Electronic Spectroscopy Reveals Excitonic Structure in the Baseplate of a Chlorosome. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1743-1747.	2.1	25
22	Spectral characterization of chlorophyll fluorescence in barley leaves during linear heating. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2000, 59, 103-114.	1.7	24
23	New multichannel kinetic spectrophotometer-fluorimeter with pulsed measuring beam for photosynthesis research. <i>Photosynthesis Research</i> , 2006, 88, 351-356.	1.6	24
24	Structure of PSI, PSII and antennae complexes from yellow-green alga <i>Xanthonema debile</i> . <i>Photosynthesis Research</i> , 2011, 108, 25-32.	1.6	24
25	Role of Carotenoids in Light-Harvesting Processes in an Antenna Protein from the Chromophyte <i>Xanthonema debile</i> . <i>Journal of Physical Chemistry B</i> , 2012, 116, 8880-8889.	1.2	21
26	Aggregation of the Light-Harvesting Complex in Intact Leaves of Tobacco Plants Stressed by CO <sub>2</sub> Deficit. <i>Photochemistry and Photobiology</i> , 1998, 67, 304-311.	1.3	20
27	Effects of severe CO <sub>2</sub> starvation on the photosynthetic electron transport chain in tobacco plants. <i>Photosynthesis Research</i> , 2001, 68, 203-213.	1.6	20
28	Excitonic interactions in the reaction centre of photosystem II studied by using circular dichroism. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2002, 1554, 147-152.	0.5	20
29	Effect of Carotenoids and Monogalactosyl Diglyceride on Bacteriochlorophyll c Aggregates in Aqueous Buffer: Implications for the Self-assembly of Chlorosomes. <i>Photochemistry and Photobiology</i> , 2004, 80, 572.	1.3	20
30	Structural characterization of photosystem II complex from red alga <i>Porphyridium cruentum</i> retaining extrinsic subunits of the oxygen-evolving complex. <i>FEBS Journal</i> , 2004, 271, 2967-2975.	0.2	20
31	Microscopy and single molecule detection in photosynthesis. <i>Micron</i> , 2005, 36, 483-502.	1.1	19
32	Localization of the PsbH subunit in photosystem II from the <i>Synechocystis</i> 6803 using the His-tagged Ni-NTA Nanogold labeling. <i>Journal of Structural Biology</i> , 2005, 152, 28-35.	1.3	19
33	Effect of quinones on formation and properties of bacteriochlorophyll c aggregates. <i>Photosynthesis Research</i> , 2008, 95, 183-189.	1.6	19
34	The Length of Esterifying Alcohol Affects the Aggregation Properties of Chlorosomal Bacteriochlorophylls. <i>Photochemistry and Photobiology</i> , 2008, 84, 1187-1194.	1.3	19
35	Native FMO-reaction center supercomplex in green sulfur bacteria: an electron microscopy study. <i>Photosynthesis Research</i> , 2016, 128, 93-102.	1.6	19
36	Three-dimensional reconstruction of anomalous chloroplasts in transgenic <i>ipt</i> tobacco. <i>Planta</i> , 2006, 223, 659-671.	1.6	18

#	ARTICLE	IF	CITATIONS
37	Highly efficient energy transfer from a carbonyl carotenoid to chlorophyll a in the main light harvesting complex of <i>Chromera velia</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2014, 1837, 1748-1755.	0.5	18
38	Spatial location of photosystem pigment-protein complexes in thylakoid membranes of chloroplasts of <i>Pisum sativum</i> studied by chlorophyll fluorescence. <i>Journal of Luminescence</i> , 2007, 122-123, 301-303.	1.5	17
39	Bacteriochlorophyll Aggregates Self-Assembled on Functionalized Gold Nanorod Cores as Mimics of Photosynthetic Chlorosomal Antennae: A Single Molecule Study. <i>ACS Nano</i> , 2014, 8, 2176-2182.	7.3	17
40	Trolox, a Water-Soluble Analogue of $\alpha$ -Tocopherol, Photoprotects the Surface-Exposed Regions of the Photosystem II Reaction Center in Vitro. Is This Physiologically Relevant?. <i>Biochemistry</i> , 2011, 50, 8291-8301.	1.2	16
41	A new symbiotic lineage related to <i>Neisseria</i> and <i>Snodgrassella</i> arises from the dynamic and diverse microbiomes in sucking lice. <i>Molecular Ecology</i> , 2021, 30, 2178-2196.	2.0	16
42	Identification of Photosystem I and Photosystem II enriched regions of thylakoid membrane by optical microimaging of cryo-fluorescence emission spectra and of variable fluorescence. <i>Micron</i> , 2007, 38, 170-175.	1.1	15
43	Kinetics of in vivo bacteriochlorophyll fluorescence yield and the state of photosynthetic apparatus of purple bacteria. <i>Photosynthesis Research</i> , 2009, 99, 115-125.	1.6	15
44	Localization of Pcb antenna complexes in the photosynthetic prokaryote <i>Prochlorothrix hollandica</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2010, 1797, 89-97.	0.5	15
45	Photosystem II reaction center with altered pigment-composition: reconstitution of a complex containing five chlorophyll a per two pheophytin a with modified chlorophylls. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2002, 1556, 21-28.	0.5	14
46	New techniques for membrane protein crystallization tested on photosystem II core complex of <i>Pisum sativum</i> . <i>Photosynthesis Research</i> , 2007, 90, 255-259.	1.6	14
47	Supramolecular organization of fucoxanthin-chlorophyll proteins in centric and pennate diatoms. <i>Photosynthesis Research</i> , 2014, 121, 79-86.	1.6	14
48	Inner Structure of Intact Chloroplasts Observed by a Low Temperature Laser Scanning Microscope. <i>Photosynthetica</i> , 2000, 38, 493-496.	0.9	13
49	Interaction of Photosystem 2-LHC2 Supercomplexes in Adjacent Layers of Stacked Chloroplast Thylakoid Membranes. <i>Photosynthetica</i> , 2004, 42, 193-199.	0.9	11
50	Force field development on pigments of photosystem 2 reaction centre. <i>Photosynthetica</i> , 2005, 43, 417-420.	0.9	10
51	Carotenoids in Energy Transfer and Quenching Processes in Pcb and Pcb-PS I Complexes from <i>Prochlorothrix hollandica</i> . <i>Journal of Physical Chemistry B</i> , 2010, 114, 9275-9282.	1.2	10
52	Aggregation of the Light-Harvesting Complex in Intact Leaves of Tobacco Plants Stressed by CO <sub>2</sub> Deficit. <i>Photochemistry and Photobiology</i> , 1998, 67, 304.	1.3	10
53	Effect of Carotenoids and Monogalactosyl Diglyceride on Bacteriochlorophyll c Aggregates in Aqueous Buffer: Implications for the Self-assembly of Chlorosomes. <i>Photochemistry and Photobiology</i> , 2004, 80, 572.	1.3	10
54	Structure and function of photosynthetic systems studied by hole burning spectroscopy. <i>Journal of Luminescence</i> , 1991, 48-49, 295-298.	1.5	9

#	ARTICLE	IF	CITATIONS
55	The effects of light-induced reduction of the photosystem II reaction center. <i>Journal of Molecular Modeling</i> , 2009, 15, 923-933.	0.8	9
56	Self-assembly and energy transfer in artificial light-harvesting complexes of bacteriochlorophyll $\tilde{A}c$ with astaxanthin. <i>Photosynthesis Research</i> , 2012, 111, 193-204.	1.6	9
57	Energy transfer dynamics in a red-shifted violaxanthin-chlorophyll a light-harvesting complex. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2019, 1860, 111-120.	0.5	9
58	Supramolecular organization of photosynthetic membrane proteins in the chlorosome-containing bacterium <i>Chloroflexus aurantiacus</i> . <i>Photosynthesis Research</i> , 2014, 122, 13-21.	1.6	8
59	Red-shifted light-harvesting system of freshwater eukaryotic alga <i>Trachydiscus minutus</i> (Eustigmatophyta, Stramenopila). <i>Photosynthesis Research</i> , 2019, 142, 137-151.	1.6	8
60	Depth of focus extended microscope configuration for imaging of incorporated groups of molecules, DNA constructs and clusters inside bacterial cells. <i>Optics Communications</i> , 2009, 282, 2495-2501.	1.0	7
61	Evidence for localisation of accumulated chlorophyll cation on the D1-accessory chlorophyll in the reaction centre of Photosystem II. <i>Photosynthesis Research</i> , 2005, 84, 297-302.	1.6	6
62	Reaction Center of Photosystem II with No Peripheral Pigments in D2 Allows Secondary Electron Transfer in D1. <i>Biochemistry</i> , 2007, 46, 15027-15032.	1.2	5
63	Absorbance changes accompanying the fast fluorescence induction in the purple bacterium <i>Rhodobacter sphaeroides</i> . <i>Photosynthesis Research</i> , 2010, 105, 115-121.	1.6	5
64	Low-temperature absorption off-resonant hole-burning spectroscopy of pheophytine a in photosystem II reaction center. <i>Journal of Luminescence</i> , 2000, 87-89, 809-811.	1.5	4
65	Isolation and characterization of paracrystalline structures from transgenic Pssu-ipt tobacco. <i>Photosynthetica</i> , 2005, 43, 509-517.	0.9	4
66	Conformational changes and their role in non-radiative energy dissipation in photosystem II reaction centres. <i>Photochemical and Photobiological Sciences</i> , 2005, 4, 999.	1.6	4
67	Room temperature photooxidation of $\beta$ -carotene and peripheral chlorophyll in photosystem II reaction centre. <i>Photosynthesis Research</i> , 2008, 98, 179-187.	1.6	4
68	Pavel Siffel (1954-2003) or Life full of chlorophyll. <i>Photosynthetica</i> , 2005, 43, 323-328.	0.9	3
69	Super-resolution via iterative phase retrieval for blurred and saturated biological images. <i>Optics Express</i> , 2008, 16, 7894.	1.7	3
70	Hole-burning study of exciton migration and pigment-protein interaction in photosynthetic systems. <i>Journal of Luminescence</i> , 1999, 83-84, 357-360.	1.5	1
71	Effect of Carotenoids and Monogalactosyl Diglyceride on Bacteriochlorophyll <i>a</i> Aggregates in Aqueous Buffer: Implications for the Self-assembly of Chlorosomes. <i>Photochemistry and Photobiology</i> , 2004, 80, 572-578.	1.3	1
72	Toward the Crystallization of Photosystem II Core Complex from <i>Pisum sativum</i> L.. <i>Crystal Growth and Design</i> , 2010, 10, 3391-3396.	1.4	1

#	ARTICLE	IF	CITATIONS
73	Laser-induced hole filling in reaction center of photosystem II. Journal of Luminescence, 2000, 86, 407-413.	1.5	0
74	Fast Exciton Dynamics and Coherent Oscillations Revealed by Coherent 2D Spectroscopy in Chlorosomes. EPJ Web of Conferences, 2013, 41, 08015.	0.1	0
75	Prof. RNDr. DanuÅ¡e SofrovÅ¡, CSc.. Photosynthetica, 2016, 54, 481-483.	0.9	0