

# Stefano Santabarbara

## List of Publications by Year in descending order

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73  
papers

2,853  
citations

201674

27  
h-index

182427

51  
g-index

74  
all docs

74  
docs citations

74  
times ranked

3169  
citing authors

#	ARTICLE	IF	CITATIONS
1	Biocatalytic induction of supramolecular order. <i>Nature Chemistry</i> , 2010, 2, 1089-1094.	13.6	324
2	Energetic coupling between plastids and mitochondria drives CO <sub>2</sub> assimilation in diatoms. <i>Nature</i> , 2015, 524, 366-369.	27.8	311
3	Photochemistry beyond the red limit in chlorophyll <i>f</i> -containing photosystems. <i>Science</i> , 2018, 360, 1210-1213.	12.6	216
4	Functional Analyses of the Plant Photosystem I-Light-Harvesting Complex II Supercomplex Reveal That Light-Harvesting Complex II Loosely Bound to Photosystem II Is a Very Efficient Antenna for Photosystem I in State II. <i>Plant Cell</i> , 2012, 24, 2963-2978.	6.6	204
5	A Comparison Between Plant Photosystem I and Photosystem II Architecture and Functioning. <i>Current Protein and Peptide Science</i> , 2014, 15, 296-331.	1.4	200
6	Modelling of the electron transfer reactions in Photosystem I by electron tunnelling theory: The phylloquinones bound to the PsaA and the PsaB reaction centre subunits of PS I are almost isoenergetic to the iron-sulfur cluster FX. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2005, 1708, 283-310.	1.0	91
7	Bidirectional Electron Transfer in Photosystem I: Determination of Two Distances between P700+ and A1- in Spin-Correlated Radical Pairs. <i>Biochemistry</i> , 2005, 44, 2119-2128.	2.5	90
8	State transitions redistribute rather than dissipate energy between the two photosystems in <i>Chlamydomonas</i> . <i>Nature Plants</i> , 2016, 2, 16031.	9.3	85
9	Light-adapted charge-separated state of photosystem II: structural and functional dynamics of the closed reaction center. <i>Plant Cell</i> , 2021, 33, 1286-1302.	6.6	74
10	Chlorophyll Triplet States Associated with Photosystem II of Thylakoids. <i>Biochemistry</i> , 2002, 41, 8184-8194.	2.5	70
11	Analysis of the Spin-Polarized Electron Spin Echo of the [P700+A1-] Radical Pair of Photosystem I Indicates That Both Reaction Center Subunits Are Competent in Electron Transfer in Cyanobacteria, Green Algae, and Higher Plants. <i>Biochemistry</i> , 2006, 45, 7389-7403.	2.5	60
12	Identification and Characterization of a Novel Vitamin B12 (Cobalamin) Biosynthetic Enzyme (CobZ) from <i>Rhodobacter capsulatus</i> , Containing Flavin, Heme, and Fe-S Cofactors. <i>Journal of Biological Chemistry</i> , 2005, 280, 1086-1094.	3.4	52
13	Determination of the Photolysis Products of [FeFe]Hydrogenase Enzyme Model Systems using Ultrafast Multidimensional Infrared Spectroscopy. <i>Inorganic Chemistry</i> , 2010, 49, 9563-9573.	4.0	47
14	Photoinhibition in vivo and in vitro Involves Weakly Coupled Chlorophyll-Protein Complexes. <i>Photochemistry and Photobiology</i> , 2002, 75, 613.	2.5	47
15	Chlorophyll triplet states associated with Photosystem I and Photosystem II in thylakoids of the green alga <i>Chlamydomonas reinhardtii</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2007, 1767, 88-105.	1.0	45
16	Assignment of a kinetic component to electron transfer between iron-sulfur clusters FX and FA/B of Photosystem I. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2006, 1757, 1529-1538.	1.0	44
17	Directionality of Electron-Transfer Reactions in Photosystem I of Prokaryotes: Universality of the Bidirectional Electron-Transfer Model. <i>Journal of Physical Chemistry B</i> , 2010, 114, 15158-15171.	2.6	43
18	The Requirement for Carotenoids in the Assembly and Function of the Photosynthetic Complexes in <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , 2012, 161, 535-546.	4.8	42

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19	Exploring the Electron Transfer Pathways in Photosystem I by High-Time-Resolution Electron Paramagnetic Resonance: Observation of the B-Side Radical Pair P700+A1B <sup>•+</sup> in Whole Cells of the Deuterated Green Alga <i>Chlamydomonas reinhardtii</i> at Cryogenic Temperatures. <i>Journal of the American Chemical Society</i> , 2012, 134, 5563-5576.	13.7	42
20	Femtosecond to Microsecond Photochemistry of a [FeFe]hydrogenase Enzyme Model Compound. <i>Journal of Physical Chemistry B</i> , 2010, 114, 15370-15379.	2.6	34
21	Photochemical trapping heterogeneity as a function of wavelength, in plant photosystem I (PSI <sup>+</sup> LHCI). <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2013, 1827, 779-785.	1.0	33
22	Bidirectional Electron Transfer in the Reaction Centre of Photosystem I. <i>Journal of Integrative Plant Biology</i> , 2010, 52, 735-749.	8.5	32
23	Interquinone Electron Transfer in Photosystem I As Evidenced by Altering the Hydrogen Bond Strength to the Phylloquinone(s). <i>Journal of Physical Chemistry B</i> , 2010, 114, 9300-9312.	2.6	32
24	Discrete Redox Signaling Pathways Regulate Photosynthetic Light-Harvesting and Chloroplast Gene Transcription. <i>PLoS ONE</i> , 2011, 6, e26372.	2.5	32
25	The Q <sub>y</sub> Absorption Spectrum of the Light-Harvesting Complex II As Determined by Structure-Based Analysis of Chlorophyll Macrocycle Deformations. <i>Biochemistry</i> , 2012, 51, 2717-2736.	2.5	32
26	Bidirectional electron transfer in photosystem I: Replacement of the symmetry-breaking tryptophan close to the PsaB-bound phylloquinone (A1B) with a glycine residue alters the redox properties of A1B and blocks forward electron transfer at cryogenic temperatures. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2006, 1757, 1623-1633.	1.0	30
27	Selective quenching of the fluorescence of core chlorophyll-protein complexes by photochemistry indicates that Photosystem II is partly diffusion limited. <i>Photosynthesis Research</i> , 2000, 66, 225-233.	2.9	29
28	Comparative excitation-emission dependence of the $F_v/F_m$ ratio in model green algae and cyanobacterial strains. <i>Physiologia Plantarum</i> , 2019, 166, 351-364.	5.2	29
29	Comparison of the Thermodynamic Landscapes of Unfolding and Formation of the Energy Dissipative State in the Isolated Light Harvesting Complex II. <i>Biophysical Journal</i> , 2009, 97, 1188-1197.	0.5	25
30	Alteration of the H-Bond to the A <sub>1</sub> Phylloquinone in Photosystem I: Influence on the Kinetics and Energetics of Electron Transfer. <i>Journal of Physical Chemistry B</i> , 2011, 115, 1751-1759.	2.6	25
31	Trapping Dynamics in Photosystem I-Light Harvesting Complex I of Higher Plants Is Governed by the Competition Between Excited State Diffusion from Low Energy States and Photochemical Charge Separation. <i>Journal of Physical Chemistry B</i> , 2017, 121, 9816-9830.	2.6	24
32	Additive Effect of Mutations Affecting the Rate of Phylloquinone Reoxidation and Directionality of Electron Transfer within Photosystem I <sup>+</sup> . <i>Photochemistry and Photobiology</i> , 2008, 84, 1381-1387.	2.5	23
33	Limited sensitivity of pigment photo-oxidation in isolated thylakoids to singlet excited state quenching in photosystem II antenna. <i>Archives of Biochemistry and Biophysics</i> , 2006, 455, 77-88.	3.0	21
34	Temperature Dependence of the Reduction of P <sub>700</sub> <sup>+</sup> by Tightly Bound Plastocyanin in Vivo. <i>Biochemistry</i> , 2009, 48, 10457-10466.	2.5	21
35	Excitation and emission wavelength dependence of fluorescence spectra in whole cells of the cyanobacterium <i>Synechocystis</i> sp. PPC6803: Influence on the estimation of Photosystem II maximal quantum efficiency. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018, 1859, 1207-1222.	1.0	21
36	The effect of excited state population in Photosystem II on the photoinhibition-induced changes in chlorophyll fluorescence parameters. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1999, 1409, 165-170.	1.0	19

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37	The size of the population of weakly coupled chlorophyll pigments involved in thylakoid photoinhibition determined by steady-state fluorescence spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2005, 1709, 138-149.	1.0	19
38	Controlling Electron Transfer between the Two Cofactor Chains of Photosystem I by the Redox State of One of Their Components. <i>Biophysical Journal</i> , 2015, 108, 1537-1547.	0.5	17
39	Biochemical and Spectroscopic Characterization of Highly Stable Photosystem II Supercomplexes from <i>Arabidopsis</i> . <i>Journal of Biological Chemistry</i> , 2016, 291, 19157-19171.	3.4	17
40	Carotenoid Triplet States Associated with the Long-Wavelength-Emitting Chlorophyll Forms of Photosystem I in Isolated Thylakoid Membranes. <i>Journal of Physical Chemistry B</i> , 2005, 109, 986-991.	2.6	16
41	Non-Endogenous ketocarotenoid accumulation in engineered <i>Synechocystis</i> sp. PCC 6803. <i>Physiologia Plantarum</i> , 2019, 166, 403-412.	5.2	16
42	Proton ENDOR spectroscopy of the anion radicals of the chlorophyll primary electron acceptors in type I photosynthetic reaction centres. <i>Chemical Physics</i> , 2003, 294, 319-328.	1.9	15
43	Wavelength dependence of the fluorescence emission under conditions of open and closed Photosystem II reaction centres in the green alga <i>Chlorella sorokiniana</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2014, 1837, 726-733.	1.0	15
44	Modulation of the fluorescence yield in heliobacterial cells by induction of charge recombination in the photosynthetic reaction center. <i>Photosynthesis Research</i> , 2014, 120, 221-235.	2.9	15
45	Kinetics and heterogeneity of energy transfer from light harvesting complex II to photosystem I in the supercomplex isolated from <i>Arabidopsis</i> . <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 9210-9222.	2.8	15
46	Carotenoid triplet states in photosystem II: Coupling with low-energy states of the core complex. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2015, 1847, 262-275.	1.0	13
47	A Fluorescence Detected Magnetic Resonance Investigation of the Carotenoid Triplet States Associated with Photosystem II of Isolated Spinach Thylakoid Membranes. <i>Photosynthesis Research</i> , 2005, 86, 283-296.	2.9	12
48	Phosphorescence study of chlorophyll d photophysics. Determination of the energy and lifetime of the photo-excited triplet state. Evidence of singlet oxygen photosensitization. <i>Photosynthesis Research</i> , 2011, 108, 101-106.	2.9	12
49	Ultrafast excited-state dynamics in land plants Photosystem I core and whole supercomplex under oxidised electron donor conditions. <i>Photosynthesis Research</i> , 2020, 144, 221-233.	2.9	12
50	Modelling electron transfer in photosystem I: limits and perspectives. <i>Physiologia Plantarum</i> , 2019, 166, 73-87.	5.2	11
51	The photo-excited triplet state of chlorophyll <i>d</i> in methyl-tetrahydrofuran studied by optically detected magnetic resonance and time-resolved EPR. <i>Molecular Physics</i> , 2007, 105, 2109-2117.	1.7	10
52	Structure-Based Exciton Hamiltonian and Dynamics for the Reconstituted Wild-type CP29 Protein Antenna Complex of the Photosystem II. <i>Journal of Physical Chemistry B</i> , 2018, 122, 4611-4624.	2.6	9
53	High photochemical trapping efficiency in Photosystem I from the red clade algae <i>Chromera velia</i> and <i>Phaeodactylum tricornutum</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2017, 1858, 56-63.	1.0	8
54	A Comparison of Constitutive and Inducible Non-Endogenous Keto-Carotenoids Biosynthesis in <i>Synechocystis</i> sp. PCC 6803. <i>Microorganisms</i> , 2019, 7, 501.	3.6	8

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55	Isolation and characterization of CAC antenna proteins and photosystem I supercomplex from the cryptophytic alga <i>Rhodomonas salina</i> . <i>Physiologia Plantarum</i> , 2019, 166, 309-319.	5.2	8
56	An electron paramagnetic resonance investigation of the electron transfer reactions in the chlorophyll-containing photosystem I of <i>Acaryochloris marina</i> . <i>FEBS Letters</i> , 2007, 581, 1567-1571.	2.8	7
57	Comparative kinetic and energetic modelling of phylosemiquinone oxidation in Photosystem I. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 9687-9701.	2.8	7
58	Direct Evidence for Excitation Energy Transfer Limitations Imposed by Low-Energy Chlorophylls in Photosystem I's Light Harvesting Complex I of Land Plants. <i>Journal of Physical Chemistry B</i> , 2021, 125, 3566-3573.	2.6	6
59	Light Harvesting by Long-Wavelength Chlorophyll Forms (Red Forms) in Algae: Focus on their Presence, Distribution and Function. <i>Advances in Photosynthesis and Respiration</i> , 2020, , 261-297.	1.0	6
60	Photoinhibition in vivo and in vitro Involves Weakly Coupled Chlorophyll-Protein Complexes. <i>Photochemistry and Photobiology</i> , 2007, 75, 613-618.	2.5	5
61	Reconstituted CP29: multicomponent fluorescence decay from an optically homogeneous sample. <i>Photosynthesis Research</i> , 2012, 111, 53-62.	2.9	5
62	Kinetics of phylosemiquinone oxidation in the Photosystem I reaction centre of <i>Acaryochloris marina</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2012, 1817, 328-335.	1.0	4
63	Spectral dependence of irreversible light-induced fluorescence quenching: Chlorophyll forms with maximal emission at 700-702 and 705-710 nm as spectroscopic markers of conformational changes in the core complex. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2017, 1858, 529-543.	1.0	3
64	Kinetics and Energetics of Phylloquinone Reduction in Photosystem I: Insight From Modeling of the Site Directed Mutants. <i>Frontiers in Plant Science</i> , 2019, 10, 852.	3.6	3
65	Effects of Quasi-Equilibrium States on the Kinetics of Electron Transfer and Radical Pair Stabilisation in Photosystem I. , 2014, , 241-274.		3
66	Ultrafast excited state dynamics in the monomeric and trimeric photosystem I core complex of <i>Spirulina platensis</i> probed by two-dimensional electronic spectroscopy. <i>Journal of Chemical Physics</i> , 2022, 156, 164202.	3.0	3
67	Preliminary Investigation on Phytoplankton Dynamics and Primary Production Models in an Oligotrophic Lake from Remote Sensing Measurements. <i>Sensors</i> , 2021, 21, 5072.	3.8	2
68	Two wavelength-dependent mechanisms of sensitisation of light-induced quenching in the isolated light-harvesting complex <i>scpII</i> . <i>FEBS Letters</i> , 2016, 590, 2549-2557.	2.8	0
69	On wavelength-dependent exciton lifetime distributions in reconstituted CP29 antenna of the photosystem II and its site-directed mutants. <i>Journal of Chemical Physics</i> , 2021, 154, 085101.	3.0	0
70	The Physiological Relevance of Bidirectional Electron Transfer in Photosystem I of Eukaryotes. , 2008, , 183-186.		0
71	Towards Uncovering the Energetics of Secondary Electron Transfer Reactions in Photosystem I. <i>Advanced Topics in Science and Technology in China</i> , 2013, , 7-12.	0.1	0
72	Energy Transfer pathways in PSI-LHCI probed by Two-Dimensional Electronic Spectroscopy. , 2020, , .		0

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73	Influence of the Wavelength of Excitation and Fluorescence Emission Detection on the Estimation of Fluorescence-Based Physiological Parameters in Different Classes of Photosynthetic Organisms. , 0, , .		0