Antoine Royant

List of Publications by Year
in descending order

74 papers	6,584 citations	101384 36 h-index	85405 71 g-index
86 all docs	86 docs citations	86 times ranked	8480 citing authors

#	Article	IF	Citations
1	Trapping and structural characterisation of a covalent intermediate in vitamin B₆ biosynthesis catalysed by the Pdx1 PLP synthase. RSC Chemical Biology, 2022, 3, 227-230.	2.0	0
2	Riboflavin-binding proteins for singlet oxygen production. Photochemical and Photobiological Sciences, 2022, 21, 1545-1555.	1.6	10
3	Serial crystallography captures dynamic control of sequential electron and proton transfer events in a flavoenzyme. Nature Chemistry, 2022, 14, 677-685.	6.6	24
4	Bistable Photoswitch Allows in Vivo Control of Hematopoiesis. ACS Central Science, 2022, 8, 57-66.	5.3	18
5	Cyan fluorescent proteins derived from mNeonGreen. Protein Engineering, Design and Selection, 2022, 35, .	1.0	3
6	Ultrafast structural changes within a photosynthetic reaction centre. Nature, 2021, 589, 310-314.	13.7	47
7	Mechanism and dynamics of fatty acid photodecarboxylase. Science, 2021, 372, .	6.0	93
8	An enzymatic activation of formaldehyde for nucleotide methylation. Nature Communications, 2021, 12, 4542.	5.8	6
9	Characterization of a bacterial copperâ€dependent lytic polysaccharide monooxygenase with an unusual second coordination sphere. FEBS Journal, 2020, 287, 3298-3314.	2.2	16
10	Molecular mechanism of light-driven sodium pumping. Nature Communications, 2020, 11, 2137.	5.8	67
11	ID30A-3 (MASSIF-3) â€“ a beamline for macromolecular crystallography at the ESRF with a small intense beam. Journal of Synchrotron Radiation, 2020, 27, 844-851.	1.0	23
12	Millisecond time-resolved serial oscillation crystallography of a blue-light photoreceptor at a synchrotron. IUCrJ, 2020, 7, 728-736.	1.0	12
13	Aequoreaâ€™s secrets revealed: New fluorescent proteins with unique properties for bioimaging and biosensing. PLoS Biology, 2020, 18, e3000936.	2.6	40
14	Structure Solution of the Fluorescent Protein Cerulean Using MeshAndCollect. Journal of Visualized Experiments, 2019, , .	0.2	1
15	Tailing miniSOG: structural bases of the complex photophysics of a flavin-binding singlet oxygen photosensitizing protein. Scientific Reports, 2019, 9, 2428.	1.6	37
16	Dynamics of a family of cyan fluorescent proteins probed by incoherent neutron scattering. Journal of the Royal Society Interface, 2019, 16, 20180848.	1.5	4
17	Specific radiation damage is a lesser concern at room temperature. IUCrJ, 2019, 6, 665-680.	1.0	42
18	Tracking the route of molecular oxygen in O ₂ -tolerant membrane-bound [NiFe] hydrogenase. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2229-E2237.	3.3	41

#	Article	IF	Citations
19	Precision Optogenetic Tool for Selective Single- and Multiple-Cell Ablation in a Live Animal Model System. Cell Chemical Biology, 2017, 24, 110-119.	2.5	58
20	Lysine relay mechanism coordinates intermediate transfer in vitamin B6 biosynthesis. Nature Chemical Biology, 2017, 13, 290-294.	3.9	16
21	Online Raman spectroscopy for structural biology on beamline ID29 of the ESRF. Journal of Structural Biology, 2017, 200, 124-127.	1.3	4
22	Chromophore Isomer Stabilization Is Critical to the Efficient Fluorescence of Cyan Fluorescent Proteins. Biochemistry, 2017, 56, 6418-6422.	1.2	12
23	mScarlet: a bright monomeric red fluorescent protein for cellular imaging. Nature Methods, 2017, 14, 53-56.	9.0	838
24	Gas-sensitive biological crystals processed in pressurized oxygen and krypton atmospheres: deciphering gas channels in proteins using a novel `soak-and-freeze' methodology. Journal of Applied Crystallography, 2016, 49, 1478-1487.	1.9	25
25	Rational design of a monomeric and photostable far-red fluorescent protein for fluorescence imaging in vivo. Protein Science, 2016, 25, 308-315.	3.1	27
26	Structural analysis of the bright monomeric yellow-green fluorescent protein mNeonGreen obtained by directed evolution. Acta Crystallographica Section D: Structural Biology, 2016, 72, 1298-1307.	1.1	41
27	A three-dimensional movie of structural changes in bacteriorhodopsin. Science, 2016, 354, 1552-1557.	6.0	350
28	Structural Determinants of Improved Fluorescence in a Family of Bacteriophytochrome-Based Infrared Fluorescent Proteins: Insights from Continuum Electrostatic Calculations and Molecular Dynamics Simulations. Biochemistry, 2016, 55, 4263-4274.	1.2	24
29	Experimental Determination of Single- and Two-Photon Excitation Transition Moments in Representative Fluorescent Proteins. Biophysical Journal, 2016, 110, 493a.	0.2	0
30	Serial Femtosecond Crystallography and Ultrafast Absorption Spectroscopy of the Photoswitchable Fluorescent Protein IrisFP. Journal of Physical Chemistry Letters, 2016, 7, 882-887.	2.1	43
31	In crystallooptical spectroscopy (icOS) as a complementary tool on the macromolecular crystallography beamlines of the ESRF. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 15-26.	2.5	63
32	The status of the macromolecular crystallography beamlines at the European Synchrotron Radiation Facility. European Physical Journal Plus, 2015, 130, 1.	1.2	31
33	Experimental Determination of Transition Dipole Moment Directions in Representative Fluorescent Proteins. Biophysical Journal, 2015, 108, 327a.	0.2	0
34	Bacteriorhodopsin: Would the real structural intermediates please stand up?. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 536-553.	1.1	97
35	Direct Evidence for a Peroxide Intermediate and a Reactive Enzymeâ€“Substrateâ€“Dioxygen Configuration in a Cofactorâ€free Oxidase. Angewandte Chemie - International Edition, 2014, 53, 13710-13714.	7.2	43
36	Structures of a human blood group glycosyltransferase in complex with a photo-activatable UDP-Gal derivative reveal two different binding conformations. Acta Crystallographica Section F, Structural Biology Communications, 2014, 70, 1015-1021.	0.4	3

#	Article	IF	Citations
37	An improved monomeric infrared fluorescent protein for neuronal and tumour brain imaging. Nature Communications, 2014, 5, 3626.	5.8	142
38	Nanoparticle Surface-Enhanced Raman Scattering of Bacteriorhodopsin Stabilized by Amphipol A8-35. Journal of Membrane Biology, 2014, 247, 971-980.	1.0	8
39	Structural and Electronic Snapshots during the Transition from a Cu(II) to Cu(I) Metal Center of a Lytic Polysaccharide Monooxygenase by X-ray Photoreduction. Journal of Biological Chemistry, 2014, 289, 18782-18792.	1.6	99
40	In-house UV radiation-damage-induced phasing of selenomethionine-labeled protein structures. Journal of Structural Biology, 2013, 181, 89-94.	1.3	1
41	The Upgrade Programme for the Structural Biology beamlines at the European Synchrotron Radiation Facility â€“ High throughput sample evaluation and automation. Journal of Physics: Conference Series, 2013, 425, 012001.	0.3	35
42	Structure of a fluorescent protein fromAequorea victoriabearing the obligate-monomer mutation A206K. Acta Crystallographica Section F: Structural Biology Communications, 2012, 68, 878-882.	0.7	63
43	Structure-guided evolution of cyan fluorescent proteins towards a quantum yield of 93%. Nature Communications, 2012, 3, 751.	5.8	626
44	Alteration of fluorescent protein spectroscopic properties upon cryoprotection. Acta Crystallographica Section D: Biological Crystallography, 2012, 68, 1578-1583.	2.5	6
45	Laser-Triggered Single Molecular Gating Motions of the KcsA Potassium Channels Recorded in a Sub-Millisecond Time Resolution. Biophysical Journal, 2012, 102, 37a.	0.2	1
46	Structural Characterization of Bacterioferritin from Blastochloris viridis. PLoS ONE, 2012, 7, e46992.	1.1	11
47	Stabilizing role of glutamic acid 222 in the structure of Enhanced Green Fluorescent Protein. Journal of Structural Biology, 2011, 174, 385-390.	1.3	113
48	Raman-assisted crystallography of biomolecules at the synchrotron: Instrumentation, methods and applications. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 750-759.	1.1	17
49	Snapshots of Enzymatic Baeyer-Villiger Catalysis. Journal of Biological Chemistry, 2011, 286, 29284-29291.	1.6	116
50	Raman-Assisted Crystallography Suggests a Mechanism of X-Ray-Induced Disulfide Radical Formation and Reparation. Structure, 2010, 18, 1410-1419.	1.6	35
51	Crystal structure of plant light-harvesting complex shows the active, energy-transmitting state. EMBO Journal, 2009, 28, 298-306.	3.5	108
52	Mammalian Expression of Infrared Fluorescent Proteins Engineered from a Bacterial Phytochrome. Science, 2009, 324, 804-807.	6.0	638
53	Intrinsic Dynamics in ECFP and Cerulean Control Fluorescence Quantum Yield. Biochemistry, 2009, 48, 10038-10046.	1.2	110
54	Simultaneous Measurements of Solvent Dynamics and Functional Kinetics in a Light-Activated Enzyme. Biophysical Journal, 2009, 96, 1902-1910.	0.2	23

#	Article	IF	Citations
55	Advances in spectroscopic methods for biological crystals. 1. Fluorescence lifetime measurements. Journal of Applied Crystallography, 2007, 40, 1105-1112.	1.9	57
56	Advances in spectroscopic methods for biological crystals. 2. Raman spectroscopy. Journal of Applied Crystallography, 2007, 40, 1113-1122.	1.9	48
57	Use of a `caged' analogue to study the traffic of choline within acetylcholinesterase by kinetic crystallography. Acta Crystallographica Section D: Biological Crystallography, 2007, 63, 1115-1128.	2.5	40
58	X-ray radiation-induced damage in DNA monitored by online Raman. Journal of Synchrotron Radiation, 2007, 14, 99-108.	1.0	40
59	Spectroscopic Characterization of Bacteriorhodopsin's L-intermediate in 3D Crystals Cooled to 170 KÂ¶. Photochemistry and Photobiology, 2007, 74, 794-804.	1.3	0
60	Advances in kinetic protein crystallography. Current Opinion in Structural Biology, 2005, 15, 538-547.	2.6	121
61	Deformation of Helix C in the Low Temperature L-intermediate of Bacteriorhodopsin. Journal of Biological Chemistry, 2004, 279, 2147-2158.	1.6	72
62	Structure of Superoxide Reductase Bound to Ferrocyanide and Active Site Expansion upon X-Ray-Induced Photo-Reduction. Structure, 2004, 12, 1729-1740.	1.6	91
63	Temperature Derivative Fluorescence Spectroscopy as a Tool to Study Dynamical Changes in Protein Crystals. Biophysical Journal, 2004, 86, 3176-3185.	0.2	34
64	Bacteriorhodopsin: a high-resolution structural view of vectorial proton transport. Biochimica Et Biophysica Acta - Biomembranes, 2002, 1565, 144-167.	1.4	204
65	Structural basis for sensory rhodopsin function. Biochimica Et Biophysica Acta - Biomembranes, 2002, 1565, 196-205.	1.4	28
66	Early Structural Rearrangements in the Photocycle of an Integral Membrane Sensory Receptor. Structure, 2002, 10, 473-482.	1.6	51
67	Detection and characterization of merohedral twinning in two protein crystals: bacteriorhodopsin and p67phox. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 784-791.	2.5	7
68	Structural Determinants of Spectral Tuning in Retinal ProteinsBacteriorhodopsin vs Sensory Rhodopsin II#. Journal of Physical Chemistry B, 2001, 105, 10124-10131.	1.2	111
69	X-ray structure of sensory rhodopsin II at 2.1-A resolution. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 10131-10136.	3.3	280
70	Spectroscopic Characterization of Bacteriorhodopsin's L-intermediate in 3D Crystals Cooled to 170 KÂ¶. Photochemistry and Photobiology, 2001, 74, 794.	1.3	26
71	Helix deformation is coupled to vectorial proton transport in the photocycle of bacteriorhodopsin. Nature, 2000, 406, 645-648.	13.7	238
72	High-resolution X-ray structure of an early intermediate in the bacteriorhodopsin photocycle. Nature, 1999, 401, 822-826.	13.7	332

#	Article	IF	Citations
73	Protein, lipid and water organization in bacteriorhodopsin crystals: a molecular view of the purple membrane at 1.9 Ã... resolution. Structure, 1999, 7, 909-917.	1.6	431
74	Detergent-free membrane protein crystallization. FEBS Letters, 1999, 457, 205-208.	1.3	51