Oleg G Poluektov

List of Publications by Year
in descending order

106	3,733	117571	143943
papers	citations	34 h-index	57 g-index

109	109	109	4875
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Millisecond Coherence Time in a Tunable Molecular Electronic Spin Qubit. ACS Central Science, 2015, 1, 488-492.	5.3	296
2	Sodium insertion in carboxylate based materials and their application in 3.6 V full sodium cells. Energy and Environmental Science, 2012, 5, 9632.	15.6	235
3	Selective propane dehydrogenation with single-site CoII on SiO2 by a non-redox mechanism. Journal of Catalysis, 2015, 322, 24-37.	3.1	168
4	Highly-efficient charge separation and polaron delocalization in polymerâ€“fullerene bulk-heterojunctions: a comparative multi-frequency EPR and DFT study. Physical Chemistry Chemical Physics, 2013, 15, 9562.	1.3	135
5	A bioinspired redox relay that mimics radical interactions of the Tyrâ€“His pairs of photosystem II. Nature Chemistry, 2014, 6, 423-428.	6.6	133
6	Long Coherence Times in Nuclear Spin-Free Vanadyl Qubits. Journal of the American Chemical Society, 2016, 138, 14678-14685.	6.6	118
7	Vanadium spin qubits as telecom quantum emitters in silicon carbide. Science Advances, 2020, 6, eaaz1192.	4.7	96
8	Photocatalytic Hydrogen Production from Noncovalent Biohybrid Photosystem I/Pt Nanoparticle Complexes. Journal of Physical Chemistry Letters, 2011, 2, 236-241.	2.1	90
9	Protein Delivery of a Ni Catalyst to Photosystem I for Light-Driven Hydrogen Production. Journal of the American Chemical Society, 2013, 135, 13246-13249.	6.6	83
10	Optical charge state control of spin defects in 4H-SiC. Nature Communications, 2017, 8, 1876.	5.8	83
11	High-field pulsed EPR and ENDOR of Gd3+ complexes in glassy solutions. Applied Magnetic Resonance, 2005, 28, 281-295.	0.6	76
12	Charge Transfer Processes in OPV Materials as Revealed by EPR Spectroscopy. Advanced Energy Materials, 2017, 7, 1602226.	10.2	75
13	A W-Band Electron Nuclear Double Resonance Study of Single Crystals of14N and15N Azurin. Journal of the American Chemical Society, 1996, 118, 12141-12153.	6.6	74
14	Bidirectional Electron Transfer in Photosystem I:â€‰ Direct Evidence from High-Frequency Time-Resolved EPR Spectroscopy. Journal of the American Chemical Society, 2005, 127, 11910-11911.	6.6	73
15	Spin Signatures of Photogenerated Radical Anions in Polymerâ^'[70]Fullerene Bulk Heterojunctions: High Frequency Pulsed EPR Spectroscopy. Journal of Physical Chemistry B, 2010, 114, 14426-14429.	1.2	72
16	Photo-accelerated fast charging of lithium-ion batteries. Nature Communications, 2019, 10, 4946.	5.8	68
17	Through-Space Ultrafast Photoinduced Electron Transfer Dynamics of a C₇₀-Encapsulated Bisporphyrin Covalent Organic Polyhedron in a Low-Dielectric Medium. Journal of the American Chemical Society, 2017, 139, 4286-4289.	6.6	58
18	Local Polarity and Hydrogen Bonding Inside the Sec14p Phospholipid-Binding Cavity: High-Field Multi-Frequency Electron Paramagnetic Resonance Studies. Biophysical Journal, 2007, 92, 3686-3695.	0.2	53

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19	A W-Band Electron Spin Echo Envelope Modulation Study of a Single Crystal of Azurin. Journal of the American Chemical Society, 1997, 119, 4726-4731.	6.6	51
20	Charge Separation and Surface Reconstruction:Â A Mn2+Doping Studyâ€. Journal of Physical Chemistry B, 2006, 110, 25441-25450.	1.2	50
21	Electronic Structure of the P700Special Pair from High-Frequency Electron Paramagnetic Resonance Spectroscopy. Journal of Physical Chemistry B, 2002, 106, 8911-8916.	1.2	48
22	The Hydrogen Catalyst Cobaloxime: A Multifrequency EPR and DFT Study of Cobaloximeâ€™s Electronic Structure. Journal of Physical Chemistry B, 2012, 116, 2943-2957.	1.2	48
23	Photoinduced Dynamics of Charge Separation: From Photosynthesis to Polymerâ€“Fullerene Bulk Heterojunctions. Journal of Physical Chemistry B, 2015, 119, 7407-7416.	1.2	48
24	High-Field EPR Study of Carotenoid and Chlorophyll Cation Radicals in Photosystem II. Journal of Physical Chemistry B, 2000, 104, 10445-10448.	1.2	46
25	Pulsed EPR in 2-mm band. Applied Magnetic Resonance, 1991, 2, 715-728.	0.6	45
26	Structure of the â€‰ Radical Pair Intermediate in Photosystem I by High Time Resolution Multifrequency Electron Paramagnetic Resonance:â€‰ Analysis of Quantum Beat Oscillations. Journal of the American Chemical Society, 2001, 123, 4211-4222.	6.6	45
27	Aqueous light driven hydrogen production by a Ruâ€“ferredoxinâ€“Co biohybrid. Chemical Communications, 2015, 51, 10628-10631.	2.2	45
28	Shallow electron centers in silver halides. Physical Review B, 1996, 54, 11276-11289.	1.1	44
29	Semi-artificial Photosynthetic CO₂ Reduction through Purple Membrane Re-engineering with Semiconductor. Journal of the American Chemical Society, 2019, 141, 11811-11815.	6.6	44
30	Molecular Cobalt Catalysts for H₂ Generation with Redox Activity and Proton Relays in the Second Coordination Sphere. Inorganic Chemistry, 2019, 58, 1697-1709.	1.9	44
31	Directionality of Electron-Transfer Reactions in Photosystem I of Prokaryotes: Universality of the Bidirectional Electron-Transfer Model. Journal of Physical Chemistry B, 2010, 114, 15158-15171.	1.2	43
32	Zirconium Modification Promotes Catalytic Activity of a Single-Site Cobalt Heterogeneous Catalyst for Propane Dehydrogenation. ACS Omega, 2018, 3, 11117-11127.	1.6	43
33	Exploring the Electron Transfer Pathways in Photosystem I by High-Time-Resolution Electron Paramagnetic Resonance: Observation of the B-Side Radical Pair P700+A1Bâ€“ in Whole Cells of the Deuterated Green Alga Chlamydomonas reinhardtii at Cryogenic Temperatures. Journal of the American Chemical Society, 2012, 134, 5563-5576.	6.6	42
34	Transient W-Band EPR Study of Sequential Electron Transfer in Photosynthetic Bacterial Reaction Centers. Journal of Physical Chemistry B, 1999, 103, 5145-5150.	1.2	38
35	Theg-Factor Anisotropy of Plant Chlorophyllaâ€¢+. Journal of Physical Chemistry B, 2000, 104, 6973-6977.	1.2	36
36	Complex Relationship between Side-Chain Polarity, Conductivity, and Thermal Stability in Molecularly Doped Conjugated Polymers. Chemistry of Materials, 2021, 33, 741-753.	3.2	36

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37	Evaluation of the coordination preferences and catalytic pathways of heteroaxial cobalt oximes towards hydrogen generation. Chemical Science, 2016, 7, 3264-3278.	3.7	35
38	Probing Local Dynamics of the Photosynthetic Bacterial Reaction Center with a Cysteine Specific Spin Label. Journal of Physical Chemistry B, 2003, 107, 6239-6244.	1.2	32
39	Geometry of Hydrogen Bonds Formed by Lipid Bilayer Nitroxide Probes:Â A High-Frequency Pulsed ENDOR/EPR Study. Journal of the American Chemical Society, 2007, 129, 3476-3477.	6.6	32
40	Ruâ€“proteinâ€“Co biohybrids designed for solar hydrogen production: understanding electron transfer pathways related to photocatalytic function. Chemical Science, 2016, 7, 7068-7078.	3.7	32
41	EPR Investigation of Cu2+-Substituted Photosynthetic Bacterial Reaction Centers:Â Evidence for Histidine Ligation at the Surface Metal Site. Biochemistry, 2000, 39, 2961-2969.	1.2	30
42	Electronic Structure of Fullerene Heterodimer in Bulkâ€Heterojunction Blends. Advanced Energy Materials, 2014, 4, 1301517.	10.2	30
43	Structure Control of a Ï€-Conjugated Oligothiophene-Based Liquid Crystal for Enhanced Mixed Ion/Electron Transport Characteristics. ACS Nano, 2019, 13, 7665-7675.	7.3	29
44	Magnetic-Field-Induced Orientation of Photosynthetic Reaction Centers As Revealed by Time-Resolved W-Band EPR of Spin-Correlated Radical Pairs. Journal of Physical Chemistry B, 1999, 103, 10733-10736.	1.2	28
45	Analytical Treatment of EPR Spectra of Weakly Coupled Spin-Correlated Radical Pairs in Disordered Solids:â€‰ Application to the Charge-Separated State in TiO2 Nanoparticles. Journal of Physical Chemistry B, 2002, 106, 938-944.	1.2	27
46	Electron Transfer Pathways and Protein Response to Charge Separation in Photosynthetic Reaction Centers:Â Time-Resolved High-Field ENDOR of the Spin-Correlated Radical Pair P865+QA-. Journal of the American Chemical Society, 2005, 127, 4049-4059.	6.6	26
47	Isolated, well-defined organovanadium(<scp>iii</scp>) on silica: single-site catalyst for hydrogenation of alkenes and alkynes. Chemical Communications, 2017, 53, 7325-7328.	2.2	26
48	Artificial Hydrogenases Based on Cobaloximes and Heme Oxygenase. ChemPlusChem, 2016, 81, 1083-1089.	1.3	25
49	In the Bottlebrush Garden: The Structural Aspects of Coordination Polymer Phases formed in Lanthanide Extraction with Alkyl Phosphoric Acids. Journal of Physical Chemistry B, 2015, 119, 11910-11927.	1.2	24
50	Tripletâ€“triplet energy transfer in artificial and natural photosynthetic antennas. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5513-E5521.	3.3	24
51	Low-Temperature Interquinone Electron Transfer in Photosynthetic Reaction Centers fromRhodobacter sphaeroidesandBlastochloris viridis:Â Characterization of QB-States by High-Frequency Electron Paramagnetic Resonance (EPR) and Electronâ^'Nuclear Double Resonance (ENDOR)â€. Biochemistry, 2005, 44, 14131-14142.	1.2	22
52	Structure of the Charge Separated State in the Photosynthetic Reaction Centers of Rhodobacter sphaeroides by Quantum Beat Oscillations and High-Field Electron Paramagnetic Resonance:â€‰ Evidence for Light-Induced Reorientation. Journal of the American Chemical Society, 2007, 129, 15935-15946.	6.6	21
53	Cu2+ Site in Photosynthetic Bacterial Reaction Centers from Rhodobacter sphaeroides, Rhodobacter capsulatus, and Rhodopseudomonas viridis. Biochemistry, 2001, 40, 6132-6141.	1.2	20
54	Charge Separation Related to Photocatalytic H₂ Production from a Ruâ€“Apoflavodoxinâ€“Ni Biohybrid. ACS Energy Letters, 2017, 2, 230-237.	8.8	20

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55	Z-scheme solar water splitting via self-assembly of photosystem I-catalyst hybrids in thylakoid membranes. Chemical Science, 2018, 9, 8504-8512.	3.7	20
56	Electron Paramagnetic Resonance Study of Radiation Damage in Photosynthetic Reaction Center Crystals. Biochemistry, 2008, 47, 9251-9257.	1.2	19
57	Intramolecular Hydrogen Bonding Restricts Gdâ€“Aquaâ€Ligand Dynamics. Angewandte Chemie - International Edition, 2017, 56, 5603-5606.	7.2	19
58	Charge Separation and Triplet Exciton Formation Pathways in Small-Molecule Solar Cells as Studied by Time-Resolved EPR Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 22707-22719.	1.5	19
59	Immobilization of an Amphiphilic Molecular Cobalt Catalyst on Carbon Black for Ligand-Assisted Water Oxidation. Inorganic Chemistry, 2018, 57, 9748-9756.	1.9	18
60	Mechanistic Aspects of a Surface Organovanadium(III) Catalyst for Hydrocarbon Hydrogenation and Dehydrogenation. ACS Catalysis, 2019, 9, 11055-11066.	5.5	17
61	sp³-Functionalization of Single-Walled Carbon Nanotubes Creates Localized Spins. ACS Nano, 2020, 14, 17675-17682.	7.3	17
62	High-Frequency Electron Nuclear Double-Resonance Spectroscopy Studies of the Mechanism of Proton-Coupled Electron Transfer at the Tyrosine-D Residue of Photosystem II. Biochemistry, 2013, 52, 4781-4790.	1.2	16
63	ENDOR of Spin-Correlated Radical Pairs in Photosynthesis at High Magnetic Field:Â A Tool for Mapping Electron Transfer Pathways. Journal of the American Chemical Society, 2004, 126, 1644-1645.	6.6	15
64	Photoregeneration of Biomimetic Nicotinamide Adenine Dinucleotide Analogues via a Dye-Sensitized Approach. ACS Applied Energy Materials, 2019, 2, 80-91.	2.5	15
65	Discovery of Native Metal Ion Sites Located on the Ferredoxin Docking Side of Photosystem I. Biochemistry, 2008, 47, 3671-3676.	1.2	14
66	Electronic Structure of Fullerene Acceptors in Organic Bulk-Heterojunctions: A Combined EPR and DFT Study. Journal of Physical Chemistry Letters, 2015, 6, 4730-4735.	2.1	14
67	Charge Separation in P3HT:SWCNT Blends Studied by EPR: Spin Signature of the Photoinduced Charged State in SWCNT. Journal of Physical Chemistry Letters, 2014, 5, 601-606.	2.1	13
68	X-ray Crystallographic, Multifrequency Electron Paramagnetic Resonance, and Density Functional Theory Characterization of the Ni(P^{Cy}₂N^{tBu}₂)₂ⁿ⁺ Hydrogen Oxidation Catalyst in the Ni(I) Oxidation State. Inorganic Chemistry, 2015, 54, 6226-6234.	1.9	13
69	Surface immobilized copper(<scp>i</scp>) diimine photosensitizers as molecular probes for elucidating the effects of confinement at interfaces for solar energy conversion. Chemical Communications, 2020, 56, 12130-12133.	2.2	13
70	High-frequency EPR approach to the electron spin-polarization effects observed in the photosynthetic reaction centers. Applied Magnetic Resonance, 2001, 21, 311-323.	0.6	12
71	Time-Resolved High-Frequency and Multifrequency EPR Studies of Spin-Correlated Radical Pairs in Photosynthetic Reaction Center Proteins. Biological Magnetic Resonance, 2004, , 165-206.	0.4	12
72	Light induced electron spin resonance properties of van der Waals CrX3 (X = Cl, I) crystals. Applied Physics Letters, 2020, 117, .	1.5	12

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73	Correlating conductivity and Seebeck coefficient to doping within crystalline and amorphous domains in poly(3â€(methoxyethoxyethoxy)thiophene). Journal of Polymer Science, 2021, 59, 2797-2808.	2.0	11
74	Pulsed EPR/ENDOR Characterization of the Cu2+Surface Site in Photosynthetic Bacterial Reaction Centers. Journal of Physical Chemistry B, 2004, 108, 11150-11156.	1.2	9
75	Observation of bi-polarons in blends of conjugated copolymers and fullerene derivatives. Physical Chemistry Chemical Physics, 2011, 13, 16579.	1.3	9
76	Nuclearity effects in supported, single-site Fe(<scp>ii</scp>) hydrogenation pre-catalysts. Dalton Transactions, 2018, 47, 10842-10846.	1.6	9
77	Directionality of Electron Transfer in Type I Reaction Center Proteins: High-Frequency EPR Study of PS I with Removed Ironâ€“Sulfur Centers. Journal of Physical Chemistry B, 2015, 119, 13771-13776.	1.2	8
78	Spin Signature of the C₆₀ Fullerene Anion: A Combined X- and D-Band EPR and DFT Study. Journal of Physical Chemistry Letters, 2018, 9, 3915-3921.	2.1	8
79	Spin-Correlated Radical Pairs as Quantum Sensors of Bidirectional ET Mechanisms in Photosystem I. Journal of Physical Chemistry B, 2019, 123, 7536-7544.	1.2	8
80	Insights into the extraction of photogenerated holes from CdSe/CdS nanorods for oxidative organic catalysis. Journal of Materials Chemistry A, 2021, 9, 12690-12699.	5.2	8
81	High-Time Resolution Electron Paramagnetic Resonance Study of Quantum Beat Oscillations Observed in Photosynthetic Reaction Center Proteins. Advances in Photosynthesis and Respiration, 2008, , 305-323.	1.0	8
82	Spin-dynamics of the spin-correlated radical pair in photosystem I. Pulsed time-resolved EPR at high magnetic field. Physical Chemistry Chemical Physics, 2009, 11, 6750.	1.3	7
83	Spectroscopic Signatures of Photogenerated Radical Anions in Polymer-[C₇₀]Fullerene Bulk Heterojunctions. ECS Transactions, 2010, 28, 3-10.	0.3	7
84	Observation of current rectification by the new bimetallic iron(<scp>iii</scp>) hydrophobe [FeIII2(L^{N4O6})] on Au|LB-molecule|Au devices. Dalton Transactions, 2018, 47, 14352-14361.	1.6	6
85	Lithium-Ion Battery Materials as Tunable, â€œRedox Non-Innocentâ€•Catalyst Supports. ACS Catalysis, 0, , 7233-7242.	5.5	6
86	Light-Induced Alteration of Low-Temperature Interprotein Electron Transfer between Photosystem I and Flavodoxin. Biochemistry, 2010, 49, 9682-9684.	1.2	5
87	Polaron and Exciton Delocalization in Oligomers of High-Performance Polymer PTB7. Journal of the American Chemical Society, 2020, 142, 1359-1366.	6.6	5
88	Exploring hyperfine interactions in spin-correlated radical pairs from photosynthetic proteins: High-frequency ENDOR and quantum beat oscillations. Applied Magnetic Resonance, 2007, 31, 123-143.	0.6	4
89	Reactivity of bio-inspired Cu(II) (N2/Py2) complexes with peroxide at room temperature. Journal of Inorganic Biochemistry, 2019, 197, 110674.	1.5	4
90	Interprotein electron transfer biohybrid system for photocatalytic H2 production. Photosynthesis Research, 2020, 143, 183-192.	1.6	4

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91	Replacing Pyridine with Pyrazine in Molecular Cobalt Catalysts: Effects on Electrochemical Properties and Aqueous H2 Generation. Catalysts, 2021, 11, 75.	1.6	4
92	Structureâ€“Transport Properties Governing the Interplay in Humidity-Dependent Mixed Ionic and Electronic Conduction of Conjugated Polyelectrolytes. ACS Polymers Au, 2022, 2, 275-286.	1.7	4
93	Quantum Sensing of Electron Transfer Pathways in Natural Photosynthesis Using Time-Resolved High-Field Electron Paramagnetic Resonance/Electronâ€“Nuclear Double Resonance Spectroscopy. Journal of Physical Chemistry B, 2021, 125, 4025-4030.	1.2	3
94	Spin-correlated radical pairs: the differential effect in high-field ENDOR spectra. Applied Magnetic Resonance, 2006, 30, 269-286.	0.6	2
95	Charge Transfer: Electronic Structure of Fullerene Heterodimer in Bulkâ€Heterojunction Blends (Adv.) Tj ETQq1 1 0.784314 rgBT /Ove	10.2	2
96	Intramolecular Hydrogen Bonding Restricts Gdâ€“Aquaâ€Ligand Dynamics. Angewandte Chemie, 2017, 129, 5695-5698.	1.6	2
97	High-Field EPR Studies of Electron Transfer Intermediates in Photosystem I. , 2006, , 339-360.		2
98	Biohybrid photosynthetic charge accumulation detected by flavin semiquinone formation in ferredoxin-NADP⁺ reductase. Chemical Science, 2022, 13, 6502-6511.	3.7	2
99	Donorâ€“Acceptor Conjugated Copolymers Containing Transition-Metal Complex: Intrachain Magnetic Exchange Interactions and Magneto-Optical Activity. Chemistry of Materials, 0, , .	3.2	2
100	One Electron Multiple Proton Transfer in Model Organic Donorâ€“Acceptor Systems: Implications for High-Frequency EPR. Applied Magnetic Resonance, 2020, 51, 977-991.	0.6	1
101	Dâ€Band EPR and ENDOR Spectroscopy of 15Nâ€Labeled Photosystem I. Applied Magnetic Resonance, 0, , 1.	0.6	1
102	The Surface Metal Site in Blc. viridis Photosynthetic Bacterial Reaction Centers: Cu2+ as a Probe of Structure, Location, and Flexibility. Applied Magnetic Resonance, 2010, 38, 1-17.	0.6	0
103	Spectroscopic Signatures of Photogenerated Radical Anions in Polymer-[70]Fullerene Bulk-Heterojunctions. ECS Meeting Abstracts, 2010, , .	0.0	0
104	Organic Photovoltaics: Charge Transfer Processes in OPV Materials as Revealed by EPR Spectroscopy (Adv. Energy Mater. 10/2017). Advanced Energy Materials, 2017, 7, .	10.2	0
105	Probing Wave Functions of Electrically Active Shallow Level Defects by Means of High-Frequency Pulsed ENDOR in Wide Bandgap Materials: SiC, AlN, ZnO, and AgCl. Applied Magnetic Resonance, 0, , 1.	0.6	0
106	Protein Environments and Electron Transfer Processes Probed with High-Frequency ENDOR. Advances in Photosynthesis and Respiration, 2009, , 953-973.	1.0	0