

# Oleg G Poluektov

## List of Publications by Year in descending order

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106  
papers

3,733  
citations

117571

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143943

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109  
all docs

109  
docs citations

109  
times ranked

4875  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure-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
2	Biohybrid photosynthetic charge accumulation detected by flavin semiquinone formation in ferredoxin-NADP <sup>+</sup> reductase. Chemical Science, 2022, 13, 6502-6511.	3.7	2
3	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
4	Quantum Sensing of Electron Transfer Pathways in Natural Photosynthesis Using Time-Resolved High-Field Electron Paramagnetic Resonance/Electron-Nuclear Double Resonance Spectroscopy. Journal of Physical Chemistry B, 2021, 125, 4025-4030.	1.2	3
5	Correlating conductivity and Seebeck coefficient to doping within crystalline and amorphous domains in poly(3-(methoxyethoxyethoxy)thiophene). Journal of Polymer Science, 2021, 59, 2797-2808.	2.0	11
6	Replacing Pyridine with Pyrazine in Molecular Cobalt Catalysts: Effects on Electrochemical Properties and Aqueous H <sub>2</sub> Generation. Catalysts, 2021, 11, 75.	1.6	4
7	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
8	Interprotein electron transfer biohybrid system for photocatalytic H <sub>2</sub> production. Photosynthesis Research, 2020, 143, 183-192.	1.6	4
9	Polaron and Exciton Delocalization in Oligomers of High-Performance Polymer PTB7. Journal of the American Chemical Society, 2020, 142, 1359-1366.	6.6	5
10	One Electron Multiple Proton Transfer in Model Organic Donor-Acceptor Systems: Implications for High-Frequency EPR. Applied Magnetic Resonance, 2020, 51, 977-991.	0.6	1
11	Light induced electron spin resonance properties of van der Waals CrX <sub>3</sub> (X = Cl, I) crystals. Applied Physics Letters, 2020, 117, .	1.5	12
12	Surface immobilized copper(II) 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
13	3-Functionalization of Single-Walled Carbon Nanotubes Creates Localized Spins. ACS Nano, 2020, 14, 17675-17682.	7.3	17
14	Vanadium spin qubits as telecom quantum emitters in silicon carbide. Science Advances, 2020, 6, eaaz1192.	4.7	96
15	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
16	Semi-artificial Photosynthetic CO <sub>2</sub> Reduction through Purple Membrane Re-engineering with Semiconductor. Journal of the American Chemical Society, 2019, 141, 11811-11815.	6.6	44
17	Mechanistic Aspects of a Surface Organovanadium(III) Catalyst for Hydrocarbon Hydrogenation and Dehydrogenation. ACS Catalysis, 2019, 9, 11055-11066.	5.5	17
18	Structure Control of a $\pi$ -Conjugated Oligothiophene-Based Liquid Crystal for Enhanced Mixed Ion/Electron Transport Characteristics. ACS Nano, 2019, 13, 7665-7675.	7.3	29

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19	Reactivity of bio-inspired Cu(II) (N <sub>2</sub> /Py <sub>2</sub> ) complexes with peroxide at room temperature. <i>Journal of Inorganic Biochemistry</i> , 2019, 197, 110674.	1.5	4
20	Photo-accelerated fast charging of lithium-ion batteries. <i>Nature Communications</i> , 2019, 10, 4946.	5.8	68
21	Molecular Cobalt Catalysts for H <sub>2</sub> Generation with Redox Activity and Proton Relays in the Second Coordination Sphere. <i>Inorganic Chemistry</i> , 2019, 58, 1697-1709.	1.9	44
22	Photoregeneration of Biomimetic Nicotinamide Adenine Dinucleotide Analogues via a Dye-Sensitized Approach. <i>ACS Applied Energy Materials</i> , 2019, 2, 80-91.	2.5	15
23	Z-scheme solar water splitting <i>via</i> self-assembly of photosystem I-catalyst hybrids in thylakoid membranes. <i>Chemical Science</i> , 2018, 9, 8504-8512.	3.7	20
24	Nuclearity effects in supported, single-site Fe( <i>ii</i> ) hydrogenation pre-catalysts. <i>Dalton Transactions</i> , 2018, 47, 10842-10846.	1.6	9
25	Zirconium Modification Promotes Catalytic Activity of a Single-Site Cobalt Heterogeneous Catalyst for Propane Dehydrogenation. <i>ACS Omega</i> , 2018, 3, 11117-11127.	1.6	43
26	Observation of current rectification by the new bimetallic iron( <i>iii</i> ) hydrophobe [FeII <sub>2</sub> (L <sup>N4O6</sup> )] on Au   LB-molecule   Au devices. <i>Dalton Transactions</i> , 2018, 47, 14352-14361.	1.6	6
27	Immobilization of an Amphiphilic Molecular Cobalt Catalyst on Carbon Black for Ligand-Assisted Water Oxidation. <i>Inorganic Chemistry</i> , 2018, 57, 9748-9756.	1.9	18
28	Spin Signature of the C <sub>60</sub> Fullerene Anion: A Combined X- and D-Band EPR and DFT Study. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3915-3921.	2.1	8
29	Charge Transfer Processes in OPV Materials as Revealed by EPR Spectroscopy. <i>Advanced Energy Materials</i> , 2017, 7, 1602226.	10.2	75
30	Intramolecular Hydrogen Bonding Restricts Gd <sup>III</sup> Ligand Dynamics. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 5603-5606.	7.2	19
31	Intramolecular Hydrogen Bonding Restricts Gd <sup>III</sup> Ligand Dynamics. <i>Angewandte Chemie</i> , 2017, 129, 5695-5698.	1.6	2
32	Isolated, well-defined organovanadium( <i>iii</i> ) on silica: single-site catalyst for hydrogenation of alkenes and alkynes. <i>Chemical Communications</i> , 2017, 53, 7325-7328.	2.2	26
33	Organic Photovoltaics: Charge Transfer Processes in OPV Materials as Revealed by EPR Spectroscopy ( <i>Adv. Energy Mater.</i> 10/2017). <i>Advanced Energy Materials</i> , 2017, 7, .	10.2	0
34	Through-Space Ultrafast Photoinduced Electron Transfer Dynamics of a C <sub>70</sub> -Encapsulated Bisporphyrin Covalent Organic Polyhedron in a Low-Dielectric Medium. <i>Journal of the American Chemical Society</i> , 2017, 139, 4286-4289.	6.6	58
35	Charge Separation Related to Photocatalytic H <sub>2</sub> Production from a Ru <sup>II</sup> -Apoflavodoxin <sup>III</sup> -Ni Biohybrid. <i>ACS Energy Letters</i> , 2017, 2, 230-237.	8.8	20
36	Charge Separation and Triplet Exciton Formation Pathways in Small-Molecule Solar Cells as Studied by Time-Resolved EPR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 22707-22719.	1.5	19

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37	Triplet-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
38	Optical charge state control of spin defects in 4H-SiC. Nature Communications, 2017, 8, 1876.	5.8	83
39	Artificial Hydrogenases Based on Cobaloximes and Heme Oxygenase. ChemPlusChem, 2016, 81, 1083-1089.	1.3	25
40	Ru-protein-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	Long Coherence Times in Nuclear Spin-Free Vanadyl Qubits. Journal of the American Chemical Society, 2016, 138, 14678-14685.	6.6	118
42	Evaluation of the coordination preferences and catalytic pathways of heteroaxial cobalt oximes towards hydrogen generation. Chemical Science, 2016, 7, 3264-3278.	3.7	35
43	Aqueous light driven hydrogen production by a Ru-ferredoxin-Co biohybrid. Chemical Communications, 2015, 51, 10628-10631.	2.2	45
44	Millisecond Coherence Time in a Tunable Molecular Electronic Spin Qubit. ACS Central Science, 2015, 1, 488-492.	5.3	296
45	Photoinduced Dynamics of Charge Separation: From Photosynthesis to Polymer-Fullerene Bulk Heterojunctions. Journal of Physical Chemistry B, 2015, 119, 7407-7416.	1.2	48
46	Directionality of Electron Transfer in Type I Reaction Center Proteins: High-Frequency EPR Study of PS I with Removed Iron-Sulfur Centers. Journal of Physical Chemistry B, 2015, 119, 13771-13776.	1.2	8
47	X-ray Crystallographic, Multifrequency Electron Paramagnetic Resonance, and Density Functional Theory Characterization of the Ni(P <sup>Cy</sup> ) <sub>2</sub> N <sup>i</sup> Bu <sub>2</sub> ) <sub>2</sub> <sup>+</sup> Hydrogen Oxidation Catalyst in the Ni(I) Oxidation State. Inorganic Chemistry, 2015, 54, 6226-6234.	1.9	13
48	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
49	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
50	Selective propane dehydrogenation with single-site Coll on SiO <sub>2</sub> by a non-redox mechanism. Journal of Catalysis, 2015, 322, 24-37.	3.1	168
51	A bioinspired redox relay that mimics radical interactions of the Tyr-His pairs of photosystem II. Nature Chemistry, 2014, 6, 423-428.	6.6	133
52	Charge Transfer: Electronic Structure of Fullerene Heterodimer in Bulk-Heterojunction Blends (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	16.2	2
53	Electronic Structure of Fullerene Heterodimer in Bulk-Heterojunction Blends. Advanced Energy Materials, 2014, 4, 1301517.	10.2	30
54	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

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55	High-Frequency Electron Nuclear Double-Resonance Spectroscopy Studies of the Mechanism of Proton-Coupled Electron Transfer at the Tyrosine-D Residue of Photosystem II. <i>Biochemistry</i> , 2013, 52, 4781-4790.	1.2	16
56	Protein Delivery of a Ni Catalyst to Photosystem I for Light-Driven Hydrogen Production. <i>Journal of the American Chemical Society</i> , 2013, 135, 13246-13249.	6.6	83
57	Highly-efficient charge separation and polaron delocalization in polymer-fullerene bulk-heterojunctions: a comparative multi-frequency EPR and DFT study. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 9562.	1.3	135
58	Exploring the Electron Transfer Pathways in Photosystem I by High-Time-Resolution Electron Paramagnetic Resonance: Observation of the B-Side Radical Pair P700+ $\dot{A}1$ 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.	6.6	42
59	Sodium insertion in carboxylate based materials and their application in 3.6 V full sodium cells. <i>Energy and Environmental Science</i> , 2012, 5, 9632.	15.6	235
60	The Hydrogen Catalyst Cobaloxime: A Multifrequency EPR and DFT Study of Cobaloxime's Electronic Structure. <i>Journal of Physical Chemistry B</i> , 2012, 116, 2943-2957.	1.2	48
61	Observation of bi-polarons in blends of conjugated copolymers and fullerene derivatives. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 16579.	1.3	9
62	Photocatalytic Hydrogen Production from Noncovalent Biohybrid Photosystem I/Pt Nanoparticle Complexes. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 236-241.	2.1	90
63	The Surface Metal Site in <i>B. viridis</i> Photosynthetic Bacterial Reaction Centers: Cu <sup>2+</sup> as a Probe of Structure, Location, and Flexibility. <i>Applied Magnetic Resonance</i> , 2010, 38, 1-17.	0.6	0
64	Spectroscopic Signatures of Photogenerated Radical Anions in Polymer-[70]Fullerene Bulk-Heterojunctions. <i>ECS Meeting Abstracts</i> , 2010, , .	0.0	0
65	Spectroscopic Signatures of Photogenerated Radical Anions in Polymer-[C <sub>70</sub> ]Fullerene Bulk Heterojunctions. <i>ECS Transactions</i> , 2010, 28, 3-10.	0.3	7
66	Spin Signatures of Photogenerated Radical Anions in Polymer-[70]Fullerene Bulk Heterojunctions: High Frequency Pulsed EPR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2010, 114, 14426-14429.	1.2	72
67	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.	1.2	43
68	Light-Induced Alteration of Low-Temperature Interprotein Electron Transfer between Photosystem I and Flavodoxin. <i>Biochemistry</i> , 2010, 49, 9682-9684.	1.2	5
69	Spin-dynamics of the spin-correlated radical pair in photosystem I. Pulsed time-resolved EPR at high magnetic field. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 6750.	1.3	7
70	Protein Environments and Electron Transfer Processes Probed with High-Frequency ENDOR. <i>Advances in Photosynthesis and Respiration</i> , 2009, , 953-973.	1.0	0
71	Discovery of Native Metal Ion Sites Located on the Ferredoxin Docking Side of Photosystem I. <i>Biochemistry</i> , 2008, 47, 3671-3676.	1.2	14
72	Electron Paramagnetic Resonance Study of Radiation Damage in Photosynthetic Reaction Center Crystals. <i>Biochemistry</i> , 2008, 47, 9251-9257.	1.2	19

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73	High-Time Resolution Electron Paramagnetic Resonance Study of Quantum Beat Oscillations Observed in Photosynthetic Reaction Center Proteins. <i>Advances in Photosynthesis and Respiration</i> , 2008, , 305-323.	1.0	8
74	Geometry of Hydrogen Bonds Formed by Lipid Bilayer Nitroxide Probes: A High-Frequency Pulsed ENDOR/EPR Study. <i>Journal of the American Chemical Society</i> , 2007, 129, 3476-3477.	6.6	32
75	Structure of the Charge Separated State in the Photosynthetic Reaction Centers of <i>Rhodobacter sphaeroides</i> by Quantum Beat Oscillations and High-Field Electron Paramagnetic Resonance: Evidence for Light-Induced Reorientation. <i>Journal of the American Chemical Society</i> , 2007, 129, 15935-15946.	6.6	21
76	Local Polarity and Hydrogen Bonding Inside the Sec14p Phospholipid-Binding Cavity: High-Field Multi-Frequency Electron Paramagnetic Resonance Studies. <i>Biophysical Journal</i> , 2007, 92, 3686-3695.	0.2	53
77	Exploring hyperfine interactions in spin-correlated radical pairs from photosynthetic proteins: High-frequency ENDOR and quantum beat oscillations. <i>Applied Magnetic Resonance</i> , 2007, 31, 123-143.	0.6	4
78	Charge Separation and Surface Reconstruction: A Mn <sup>2+</sup> Doping Study. <i>Journal of Physical Chemistry B</i> , 2006, 110, 25441-25450.	1.2	50
79	Spin-correlated radical pairs: the differential effect in high-field ENDOR spectra. <i>Applied Magnetic Resonance</i> , 2006, 30, 269-286.	0.6	2
80	High-Field EPR Studies of Electron Transfer Intermediates in Photosystem I. , 2006, , 339-360.		2
81	High-field pulsed EPR and ENDOR of Gd <sup>3+</sup> complexes in glassy solutions. <i>Applied Magnetic Resonance</i> , 2005, 28, 281-295.	0.6	76
82	Bidirectional Electron Transfer in Photosystem I: Direct Evidence from High-Frequency Time-Resolved EPR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2005, 127, 11910-11911.	6.6	73
83	Electron Transfer Pathways and Protein Response to Charge Separation in Photosynthetic Reaction Centers: A Time-Resolved High-Field ENDOR of the Spin-Correlated Radical Pair P865+QA-. <i>Journal of the American Chemical Society</i> , 2005, 127, 4049-4059.	6.6	26
84	Low-Temperature Interquinone Electron Transfer in Photosynthetic Reaction Centers from <i>Rhodobacter sphaeroides</i> and <i>Blastochloris viridis</i> : Characterization of QB-States by High-Frequency Electron Paramagnetic Resonance (EPR) and Electron Nuclear Double Resonance (ENDOR). <i>Biochemistry</i> , 2005, 44, 14131-14142.	1.2	22
85	Time-Resolved High-Frequency and Multifrequency EPR Studies of Spin-Correlated Radical Pairs in Photosynthetic Reaction Center Proteins. <i>Biological Magnetic Resonance</i> , 2004, , 165-206.	0.4	12
86	Pulsed EPR/ENDOR Characterization of the Cu <sup>2+</sup> Surface Site in Photosynthetic Bacterial Reaction Centers. <i>Journal of Physical Chemistry B</i> , 2004, 108, 11150-11156.	1.2	9
87	ENDOR of Spin-Correlated Radical Pairs in Photosynthesis at High Magnetic Field: A Tool for Mapping Electron Transfer Pathways. <i>Journal of the American Chemical Society</i> , 2004, 126, 1644-1645.	6.6	15
88	Probing Local Dynamics of the Photosynthetic Bacterial Reaction Center with a Cysteine Specific Spin Label. <i>Journal of Physical Chemistry B</i> , 2003, 107, 6239-6244.	1.2	32
89	Electronic Structure of the P700 Special Pair from High-Frequency Electron Paramagnetic Resonance Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2002, 106, 8911-8916.	1.2	48
90	Analytical Treatment of EPR Spectra of Weakly Coupled Spin-Correlated Radical Pairs in Disordered Solids: Application to the Charge-Separated State in TiO <sub>2</sub> Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2002, 106, 938-944.	1.2	27

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91	Structure of the $\pi$ Radical Pair Intermediate in Photosystem I by High Time Resolution Multifrequency Electron Paramagnetic Resonance: Analysis of Quantum Beat Oscillations. <i>Journal of the American Chemical Society</i> , 2001, 123, 4211-4222.	6.6	45
92	Cu <sup>2+</sup> Site in Photosynthetic Bacterial Reaction Centers from <i>Rhodobacter sphaeroides</i> , <i>Rhodobacter capsulatus</i> , and <i>Rhodospseudomonas viridis</i> . <i>Biochemistry</i> , 2001, 40, 6132-6141.	1.2	20
93	High-frequency EPR approach to the electron spin-polarization effects observed in the photosynthetic reaction centers. <i>Applied Magnetic Resonance</i> , 2001, 21, 311-323.	0.6	12
94	High-Field EPR Study of Carotenoid and Chlorophyll Cation Radicals in Photosystem II. <i>Journal of Physical Chemistry B</i> , 2000, 104, 10445-10448.	1.2	46
95	The g-Factor Anisotropy of Plant Chlorophyll a <sup>+</sup> . <i>Journal of Physical Chemistry B</i> , 2000, 104, 6973-6977.	1.2	36
96	EPR Investigation of Cu <sup>2+</sup> -Substituted Photosynthetic Bacterial Reaction Centers: Evidence for Histidine Ligation at the Surface Metal Site. <i>Biochemistry</i> , 2000, 39, 2961-2969.	1.2	30
97	Transient W-Band EPR Study of Sequential Electron Transfer in Photosynthetic Bacterial Reaction Centers. <i>Journal of Physical Chemistry B</i> , 1999, 103, 5145-5150.	1.2	38
98	Magnetic-Field-Induced Orientation of Photosynthetic Reaction Centers As Revealed by Time-Resolved W-Band EPR of Spin-Correlated Radical Pairs. <i>Journal of Physical Chemistry B</i> , 1999, 103, 10733-10736.	1.2	28
99	A W-Band Electron Spin Echo Envelope Modulation Study of a Single Crystal of Azurin. <i>Journal of the American Chemical Society</i> , 1997, 119, 4726-4731.	6.6	51
100	A W-Band Electron Nuclear Double Resonance Study of Single Crystals of <sup>14</sup> N and <sup>15</sup> N Azurin. <i>Journal of the American Chemical Society</i> , 1996, 118, 12141-12153.	6.6	74
101	Shallow electron centers in silver halides. <i>Physical Review B</i> , 1996, 54, 11276-11289.	1.1	44
102	Pulsed EPR in 2-mm band. <i>Applied Magnetic Resonance</i> , 1991, 2, 715-728.	0.6	45
103	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. <i>Applied Magnetic Resonance</i> , 0, , 1.	0.6	0
104	D <sup>+</sup> -Band EPR and ENDOR Spectroscopy of <sup>15</sup> N-Labeled Photosystem I. <i>Applied Magnetic Resonance</i> , 0, , 1.	0.6	1
105	Lithium-Ion Battery Materials as Tunable, $\pi$ -Redox Non-Innocent Catalyst Supports. <i>ACS Catalysis</i> , 0, , 7233-7242.	5.5	6
106	Donor-Acceptor Conjugated Copolymers Containing Transition-Metal Complex: Intrachain Magnetic Exchange Interactions and Magneto-Optical Activity. <i>Chemistry of Materials</i> , 0, , .	3.2	2