

# Alexey Silakov

## List of Publications by Year in descending order

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56  
papers

3,147  
citations

185998

28  
h-index

155451

55  
g-index

59  
all docs

59  
docs citations

59  
times ranked

2691  
citing authors

#	ARTICLE	IF	CITATIONS
1	14N HYSCORE investigation of the H-cluster of [FeFe] hydrogenase: evidence for a nitrogen in the dithiol bridge. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 6592.	1.3	354
2	Iron(IV)hydroxide $\mu$ -oxo and the Role of Thiolate Ligation in C-H Bond Activation by Cytochrome P450. <i>Science</i> , 2013, 342, 825-829.	6.0	283
3	Identification and Characterization of the $\mu$ -Sulfur-Reduced-State of the H-Cluster in [FeFe] Hydrogenase: A New Building Block for the Catalytic Cycle?. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 11458-11462.	7.2	184
4	The Electronic Structure of the H-Cluster in the [FeFe]-Hydrogenase from <i>Desulfovibrio desulfuricans</i> : A Q-band $\nu_{57}$ -Fe-ENDOR and HYSCORE Study. <i>Journal of the American Chemical Society</i> , 2007, 129, 11447-11458.	6.6	157
5	Spectroelectrochemical Characterization of the Active Site of the [FeFe] Hydrogenase HydA1 from <i>Chlamydomonas reinhardtii</i> . <i>Biochemistry</i> , 2009, 48, 7780-7786.	1.2	133
6	A Model of the [FeFe] Hydrogenase Active Site with a Biologically Relevant Azadithiolate Bridge: A Spectroscopic and Theoretical Investigation. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 1439-1443.	7.2	130
7	Importance of the Protein Framework for Catalytic Activity of [FeFe]-Hydrogenases. <i>Journal of Biological Chemistry</i> , 2012, 287, 1489-1499.	1.6	129
8	Effect of flavoring chemicals on free radical formation in electronic cigarette aerosols. <i>Free Radical Biology and Medicine</i> , 2018, 120, 72-79.	1.3	111
9	Isolation and first EPR characterization of the [FeFe]-hydrogenases from green algae. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2008, 1777, 410-416.	0.5	104
10	Two Distinct Mechanisms for C=C Desaturation by Iron(II)- and 2-(Oxo)glutarate-Dependent Oxygenases: Importance of $\pi$ -Heteroatom Assistance. <i>Journal of the American Chemical Society</i> , 2018, 140, 7116-7126.	6.6	98
11	Visualizing the Reaction Cycle in an Iron(II)- and 2-(Oxo)-glutarate-Dependent Hydroxylase. <i>Journal of the American Chemical Society</i> , 2017, 139, 13830-13836.	6.6	97
12	The [FeFe]-hydrogenase maturase HydF from <i>Clostridium acetobutylicum</i> contains a CO and CN $\nu_{\text{C-N}}$ ligated iron cofactor. <i>FEBS Letters</i> , 2010, 584, 638-642.	1.3	94
13	Significantly shorter Fe-S bond in cytochrome P450-I is consistent with greater reactivity relative to chloroperoxidase. <i>Nature Chemistry</i> , 2015, 7, 696-702.	6.6	92
14	Experimental Correlation of Substrate Position with Reaction Outcome in the Aliphatic Halogenase, SyrB2. <i>Journal of the American Chemical Society</i> , 2015, 137, 6912-6919.	6.6	78
15	Optimized over-expression of [FeFe] hydrogenases with high specific activity in <i>Clostridium acetobutylicum</i> . <i>International Journal of Hydrogen Energy</i> , 2008, 33, 6076-6081.	3.8	77
16	Spectroscopic and Electrochemical Characterization of the Iron-Sulfur and Cobalamin Cofactors of TsrM, an Unusual Radical S-Adenosylmethionine Methylase. <i>Journal of the American Chemical Society</i> , 2016, 138, 3416-3426.	6.6	77
17	Characterization of a selenocysteine-ligated P450 compound I reveals direct link between electron donation and reactivity. <i>Nature Chemistry</i> , 2017, 9, 623-628.	6.6	62
18	Function of the Diiron Cluster of <i>Escherichia coli</i> Class Ia Ribonucleotide Reductase in Proton-Coupled Electron Transfer. <i>Journal of the American Chemical Society</i> , 2013, 135, 8585-8593.	6.6	55

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19	Unusual Synthetic Pathway for an {Fe(NO) <sub>2</sub> } <sup>9+</sup> Dinitrosyl Iron Complex (DNIC) and Insight into DNIC Electronic Structure via Nuclear Resonance Vibrational Spectroscopy. <i>Inorganic Chemistry</i> , 2016, 55, 5485-5501.	1.9	55
20	Metal-free class Ie ribonucleotide reductase from pathogens initiates catalysis with a tyrosine-derived dihydroxyphenylalanine radical. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 10022-10027.	3.3	49
21	A substrate radical intermediate in catalysis by the antibiotic resistance protein Cfr. <i>Nature Chemical Biology</i> , 2013, 9, 422-427.	3.9	45
22	Spin distribution of the H-cluster in the Hox <sup>2</sup> CO state of the [FeFe]-hydrogenase from <i>Desulfovibrio desulfuricans</i> : HYSCORE and ENDOR study of <sup>14</sup> N and <sup>13</sup> C nuclear interactions. <i>Journal of Biological Inorganic Chemistry</i> , 2009, 14, 301-313.	1.1	43
23	Characterization of a Cross-Linked Protein-Nucleic Acid Substrate Radical in the Reaction Catalyzed by RlmN. <i>Journal of the American Chemical Society</i> , 2014, 136, 8221-8228.	6.6	42
24	A 2.8 Å... Fe-Fe Separation in the Fe <sub>2</sub> <sup>III/IV</sup> Intermediate, X, from <i>Escherichia coli</i> Ribonucleotide Reductase. <i>Journal of the American Chemical Society</i> , 2013, 135, 16758-16761.	6.6	39
25	Structural Basis for Superoxide Activation of <i>Flavobacterium johnsoniae</i> Class I Ribonucleotide Reductase and for Radical Initiation by Its Dimanganese Cofactor. <i>Biochemistry</i> , 2018, 57, 2679-2693.	1.2	38
26	Efficient methylation of C2 in l-tryptophan by the cobalamin-dependent radical S-adenosylmethionine methylase TsrM requires an unmodified N1 amine. <i>Journal of Biological Chemistry</i> , 2017, 292, 15456-15467.	1.6	33
27	A pulsed EPR study of clustering of Yb <sup>3+</sup> ions incorporated in GeO <sub>2</sub> glass. <i>Journal of Non-Crystalline Solids</i> , 2004, 333, 22-27.	1.5	30
28	Investigation of the Unusual Ability of the [FeFe] Hydrogenase from <i>Clostridium beijerinckii</i> to Access an O <sub>2</sub> -Protected State. <i>Journal of the American Chemical Society</i> , 2020, 142, 12409-12419.	6.6	29
29	EPR/ENDOR, Mössbauer, and Quantum-Chemical Investigations of Diiron Complexes Mimicking the Active Oxidized State of [FeFe]Hydrogenase. <i>Inorganic Chemistry</i> , 2012, 51, 8617-8628.	1.9	28
30	Evidence for a Di-μ <sub>4</sub> -oxo Diamond Core in the Mn(IV)/Fe(IV) Activation Intermediate of Ribonucleotide Reductase from <i>Chlamydia trachomatis</i> . <i>Journal of the American Chemical Society</i> , 2017, 139, 1950-1957.	6.6	28
31	Chain Length and Solvent Control over the Electronic Properties of Alkanethiolate-Protected Gold Nanoparticles at the Molecule-to-Metal Transition. <i>Journal of the American Chemical Society</i> , 2016, 138, 15987-15993.	6.6	27
32	Ligand Control over the Electronic Properties within the Metallic Core of Gold Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 11750-11753.	7.2	26
33	Unraveling the Electronic Properties of the Photoinduced States of the H-Cluster in the [FeFe] Hydrogenase from <i>D. desulfuricans</i> . <i>European Journal of Inorganic Chemistry</i> , 2011, 2011, 1056-1066.	1.0	23
34	Magnetic Properties of [FeFe]-Hydrogenases: A Theoretical Investigation Based on Extended QM and QM/MM Models of the H-Cluster and Its Surroundings. <i>European Journal of Inorganic Chemistry</i> , 2011, 2011, 1043-1049.	1.0	21
35	First Step in Catalysis of the Radical S-Adenosylmethionine Methylthiotransferase MiaB Yields an Intermediate with a [3Fe-4S] <sup>0</sup> -Like Auxiliary Cluster. <i>Journal of the American Chemical Society</i> , 2020, 142, 1911-1924.	6.6	21
36	Stable Open-Shell Phosphorane Based on a Redox-Active Amidodiphenoxide Scaffold. <i>Inorganic Chemistry</i> , 2017, 56, 8661-8668.	1.9	20

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37	Ferredoxins as interchangeable redox components in support of MiaB, a radical S-adenosylmethionine methylthiotransferase. <i>Protein Science</i> , 2019, 28, 267-282.	3.1	20
38	Advanced Electron Paramagnetic Resonance and Density Functional Theory Study of a {2Fe3S} Cluster Mimicking the Active Site of [FeFe] Hydrogenase. <i>Journal of the American Chemical Society</i> , 2010, 132, 17578-17587.	6.6	19
39	Probing ligand-induced modulation of metallic states in small gold nanoparticles using conduction electron spin resonance. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 25443-25451.	1.3	19
40	Vanadyl as a Stable Structural Mimic of Reactive Ferryl Intermediates in Mononuclear Nonheme-Iron Enzymes. <i>Inorganic Chemistry</i> , 2017, 56, 13382-13389.	1.9	19
41	Characterization of a Radical Intermediate in Lipoyl Cofactor Biosynthesis. <i>Journal of the American Chemical Society</i> , 2015, 137, 13216-13219.	6.6	17
42	Structure of Quinolinate Synthase from <i>Pyrococcus horikoshii</i> in the Presence of Its Product, Quinolonic Acid. <i>Journal of the American Chemical Society</i> , 2016, 138, 7224-7227.	6.6	15
43	What Is the Preferred Conformation of Phosphatidylserine-Copper(II) Complexes? A Combined Theoretical and Experimental Investigation. <i>Journal of Physical Chemistry B</i> , 2016, 120, 12883-12889.	1.2	13
44	Impact of Atomizer Age and Flavor on <i>In Vitro</i> Toxicity of Aerosols from a Third-Generation Electronic Cigarette against Human Oral Cells. <i>Chemical Research in Toxicology</i> , 2020, 33, 2527-2537.	1.7	12
45	Use of Noncanonical Tyrosine Analogues to Probe Control of Radical Intermediates during Endoperoxide Installation by Verruculogen Synthase (FtmOx1). <i>ACS Catalysis</i> , 2022, 12, 6968-6979.	5.5	12
46	Direct Measurement of the Radical Translocation Distance in the Class I Ribonucleotide Reductase from <i>Chlamydia trachomatis</i> . <i>Journal of Physical Chemistry B</i> , 2015, 119, 13777-13784.	1.2	10
47	Narrow-Spectrum Antibiotic Targeting of the Radical SAM Enzyme MqnE in Menaquinone Biosynthesis. <i>Biochemistry</i> , 2020, 59, 2562-2575.	1.2	10
48	Mechanism of Reduction of an Aminyl Radical Intermediate in the Radical SAM GTP 3- $\alpha$ ,8-Cyclase MoaA. <i>Journal of the American Chemical Society</i> , 2021, 143, 13835-13844.	6.6	7
49	Structural, Electronic, and Magnetic Characterization of a Dinuclear Zinc Complex Containing TCNQ <sup>•-</sup> and a 1/4-[TCNQ <sup>•-</sup> TCNQ] <sup>2-</sup> Ligand. <i>Inorganic Chemistry</i> , 2015, 54, 6072-6074.	1.9	6
50	An Unexpected Species Determined by X-ray Crystallography that May Represent an Intermediate in the Reaction Catalyzed by Quinolinate Synthase. <i>Journal of the American Chemical Society</i> , 2019, 141, 14142-14151.	6.6	6
51	Analysis of RNA Methylation by Phylogenetically Diverse Cfr Radical S-Adenosylmethionine Enzymes Reveals an Iron-Binding Accessory Domain in a Clostridial Enzyme. <i>Biochemistry</i> , 2019, 58, 3169-3184.	1.2	3
52	Characterization of Radical S-adenosylmethionine Enzymes and Intermediates in their Reactions by Continuous Wave and Pulse Electron Paramagnetic Resonance Spectroscopies. <i>Biological Magnetic Resonance</i> , 2017, , 143-186.	0.4	2
53	Evaluating the Effectiveness of a Technological Compliance-Management System for the Production of Chemical Fibers. <i>Fibre Chemistry</i> , 2014, 46, 266-272.	0.0	1
54	Technology Compliance Management in Chemical Fibre Manufacture. <i>Fibre Chemistry</i> , 2014, 46, 136-142.	0.0	0

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55	The Toxicity of Electronic Cigarette Vapor on Human Oral Cells. <i>FASEB Journal</i> , 2019, 33, 786.6.	0.2	0
56	Using peptide substrate analogs to characterize a radical intermediate in NosN catalysis. <i>Methods in Enzymology</i> , 2022, 666, 469-487.	0.4	0