

Constantinos A Varotsis

List of Publications by Year in descending order

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186265

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times ranked

1095
citing authors

#	ARTICLE	IF	CITATIONS
1	Application of double-pulse laser-induced breakdown spectroscopy (DP-LIBS), Fourier transform infrared micro-spectroscopy and Raman microscopy for the characterization of copper-sulfides. RSC Advances, 2021, 12, 631-639.	3.6	5
2	Bacterial Colonization on the Surface of Copper Sulfide Minerals Probed by Fourier Transform Infrared Micro-Spectroscopy. Crystals, 2020, 10, 1002.	2.2	4
3	Photoreduction of carotenoids in the aerobic anoxygenic photoheterotrophs probed by real time Raman spectroscopy. Journal of Photochemistry and Photobiology B: Biology, 2020, 213, 112069.	3.8	4
4	Extracellular electron uptake from carbon-based π -electron surface-donors: oxidation of graphite sheets by <i>Sulfobacillus thermosulfidoxidans</i> probed by Raman and FTIR spectroscopies. RSC Advances, 2019, 9, 19121-19125.	3.6	8
5	Photosensitivity responses of <i>Sagittula stellata</i> probed by FTIR, fluorescence and Raman microspectroscopy. RSC Advances, 2019, 9, 27391-27397.	3.6	7
6	Discrete Ligand Binding and Electron Transfer Properties of ba_3 -Cytochrome <i>c</i> Oxidase from <i>Thermus thermophilus</i> : Evolutionary Adaption to Low Oxygen and High Temperature Environments. Accounts of Chemical Research, 2019, 52, 1380-1390.	15.6	7
7	Reversible temperature-dependent high- to low-spin transition in the heme $\text{Fe}^{\text{II}}\text{Cu}$ binuclear center of cytochrome ba_3 oxidase. RSC Advances, 2019, 9, 4776-4780.	3.6	2
8	Probing hemoglobin glyco-products by fluorescence spectroscopy. RSC Advances, 2019, 9, 37614-37619.	3.6	5
9	Bio-hydrometallurgy dynamics of copper sulfide-minerals probed by micro-FTIR mapping and Raman microspectroscopy. Minerals Engineering, 2019, 132, 39-47.	4.3	19
10	Reaction of Hemoglobin With the Schiff Base Intermediate of the Glucose/Asparagine Reaction: Formation of a Hemichrome. , 2019, , 317-325.		0
11	Detection of Maillard reaction products by a coupled HPLC-Fraction collector technique and FTIR characterization of Cu(II)-complexation with the isolated species. Journal of Molecular Structure, 2017, 1141, 634-642.	3.6	13
12	Modifications of hemoglobin and myoglobin by Maillard reaction products (MRPs). PLoS ONE, 2017, 12, e0188095.	2.5	14
13	ns- $\hat{1}$ / ₄ s Time-Resolved Step-Scan FTIR of ba_3 Oxidoreductase from <i>Thermus thermophilus</i> : Protonic Connectivity of $\omega 941$ - $\omega 946$ - $\omega 927$. International Journal of Molecular Sciences, 2016, 17, 1657.	4.1	6
14	Nanosecond ligand migration and functional protein relaxation in ba_3 oxidoreductase: Structures of the B 0, B 1 and B 2 intermediate states. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 1534-1540.	1.0	3
15	Probing the whole ore chalcopyrite-bacteria interactions and jarosite biosynthesis by Raman and FTIR microspectroscopies. Bioresource Technology, 2016, 214, 852-855.	9.6	25
16	Detection of functional hydrogen-bonded water molecules with protonated/deprotonated key carboxyl side chains in the respiratory enzyme ba_3 -oxidoreductase. Physical Chemistry Chemical Physics, 2015, 17, 8113-8119.	2.8	7
17	Photobiochemical Production of Carbon Monoxide by <i>Thermus thermophilus</i> ba_3 -Cytochrome <i>c</i> Oxidase. Chemistry - A European Journal, 2015, 21, 4958-4961.	3.3	5
18	Structure and properties of the catalytic site of nitric oxide reductase at ambient temperature. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 1240-1244.	1.0	16

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19	Alleviation of organic solvent inhibition with improved copper recovery from low grade sulphide ore by bioaugmentation with newly isolated <i>Candida</i> sp. OR3 and OR6. <i>Minerals Engineering</i> , 2015, 79, 84-87.	4.3	4
20	Nitric oxide activation by <i>caa3</i> oxidoreductase from <i>Thermus thermophilus</i> . <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 10894-10898.	2.8	14
21	Probing the Action of Cytochrome c Oxidase. <i>Advances in Photosynthesis and Respiration</i> , 2014, , 187-198.	1.0	0
22	The Protein Effect in the Structure of Two Ferryl-Oxo Intermediates at the Same Oxidation Level in the Heme Copper Binuclear Center of Cytochrome c Oxidase. <i>Journal of Biological Chemistry</i> , 2013, 288, 20261-20266.	3.4	21
23	Detection of the hyponitrite species ($\text{HO}=\text{N}=\text{O}$) in denitrification: Reactivity of NO with the heme Fe-Cu center of cytochrome <i>caa3</i> and the heme Fe-Fe center of Nitric oxide reductase. <i>FASEB Journal</i> , 2013, 27, 1b64.	0.5	0
24	Spectroscopic and Kinetic Investigation of the Fully Reduced and Mixed Valence States of <i>ba3</i> -Cytochrome c Oxidase from <i>Thermus thermophilus</i> . <i>Journal of Biological Chemistry</i> , 2012, 287, 37495-37507.	3.4	9
25	Non-linear vibrational modes in biomolecules: A periodic orbits description. <i>Chemical Physics</i> , 2012, 399, 258-263.	1.9	3
26	The origin of the FeIV=O intermediates in cytochrome <i>aa3</i> oxidase. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2012, 1817, 552-557.	1.0	6
27	Tuning Heme Functionality: The Cases of Cytochrome c Oxidase and Myoglobin Oxidation. <i>Lecture Notes in Computer Science</i> , 2012, , 304-315.	1.3	0
28	Regulation of Electron and Proton Transfer by the Protein Matrix of Cytochrome <i>c</i> Oxidase. <i>Journal of Physical Chemistry B</i> , 2011, 115, 3648-3655.	2.6	20
29	Probing Protonation/Deprotonation of Tyrosine Residues in Cytochrome <i>ba3</i> Oxidase from <i>Thermus thermophilus</i> by Time-resolved Step-scan Fourier Transform Infrared Spectroscopy. <i>Journal of Biological Chemistry</i> , 2011, 286, 30600-30605.	3.4	23
30	SMARTDIAB: A Communication and Information Technology Approach for the Intelligent Monitoring, Management and Follow-up of Type 1 Diabetes Patients. <i>IEEE Transactions on Information Technology in Biomedicine</i> , 2010, 14, 622-633.	3.2	87
31	Vibrational Resonances and CuB Displacement Controlled by Proton Motion in Cytochrome c Oxidase. <i>Journal of Physical Chemistry B</i> , 2010, 114, 1136-1143.	2.6	9
32	Binding and Docking Interactions of NO, CO and O ₂ in Heme Proteins as Probed by Density Functional Theory. <i>International Journal of Molecular Sciences</i> , 2009, 10, 4137-4156.	4.1	17
33	Heme Cavity Dynamics of Photodissociated CO from <i>ba3</i> -Cytochrome c Oxidase: The Role of Ring-D Propionate. <i>Journal of Physical Chemistry B</i> , 2009, 113, 12129-12135.	2.6	7
34	Nitric oxide activation and reduction by heme-copper oxidoreductases and nitric oxide reductase. <i>Journal of Inorganic Biochemistry</i> , 2008, 102, 1277-1287.	3.5	34
35	Resonance Raman Spectroscopy of Nitric Oxide Reductase and <i>cbb3</i> Heme-Copper Oxidase. <i>Journal of Physical Chemistry B</i> , 2008, 112, 1851-1857.	2.6	20
36	Assigning Vibrational Spectra of Ferryl-Oxo Intermediates of Cytochrome c Oxidase by Periodic Orbits and Molecular Dynamics. <i>Journal of the American Chemical Society</i> , 2008, 130, 12385-12393.	13.7	19

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37	Probing the Environment of CuB in Heme α -Copper Oxidases. <i>Journal of Physical Chemistry B</i> , 2007, 111, 10502-10509.	2.6	14
38	Protein Dynamics and Spectroscopy for Ferryl Intermediate of Cytochrome c Oxidase: A Molecular Dynamics Approach. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	0
39	The Structure of the Hyponitrite Species in a Heme Fe ϵ ;Cu Binuclear Center. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 2210-2214.	13.8	52
40	Recognition and Discrimination of Gases by the Oxygen-Sensing Signal Transducer Protein HemAT As Revealed by FTIR Spectroscopy. <i>Biochemistry</i> , 2006, 45, 7763-7766.	2.5	32
41	Characterization of a Bimetallic-Bridging Intermediate in the Reduction of NO to N ₂ O: a Density Functional Theory Study. <i>Inorganic Chemistry</i> , 2006, 45, 3187-3190.	4.0	35
42	Two ligand-binding sites in the O ₂ -sensing signal transducer HemAT: Implications for ligand recognition/discrimination and signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 14796-14801.	7.1	39
43	Structural dynamics of heme-copper oxidases and nitric oxide reductases: time-resolved step-scan Fourier transform infrared and time-resolved resonance Raman studies. <i>Journal of Raman Spectroscopy</i> , 2005, 36, 337-349.	2.5	11
44	Detection of the His-Heme Fe ²⁺ -NO Species in the Reduction of NO to N ₂ O by ba ₃ -Oxidase from <i>Thermophilus</i> . <i>Journal of the American Chemical Society</i> , 2005, 127, 15161-15167.	13.7	60
45	Simultaneous Resonance Raman Detection of the Heme α -Fe-CO and CuB-CO Species in CO-bound ba ₃ -Cytochrome c Oxidase from <i>Thermus thermophilus</i> . <i>Journal of Biological Chemistry</i> , 2004, 279, 22791-22794.	3.4	35
46	Resonance Raman Detection of the Fe ²⁺ -C α -N Modes in Heme α -Copper Oxidases: A Probe of the Active Site. <i>Inorganic Chemistry</i> , 2004, 43, 4907-4910.	4.0	16
47	Detection of a Photostable Five-Coordinate Heme α -Fe-CO Species and Functional Implications of His384/I \pm 10 in CO-Bound ba ₃ -Cytochrome c Oxidase from <i>Thermus thermophilus</i> . <i>Journal of Physical Chemistry B</i> , 2004, 108, 5489-5491.	2.6	25
48	Time-resolved step-scan Fourier transform infrared investigation of heme-copper oxidases: implications for O ₂ input and H ₂ O/H ⁺ output channels. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2004, 1655, 347-352.	1.0	29
49	Probing the Q-Proton Pathway of ba ₃ -Cytochrome c Oxidase by Time-Resolved Fourier Transform Infrared Spectroscopy. <i>Biophysical Journal</i> , 2004, 86, 2438-2444.	0.5	36
50	Time-Resolved Resonance Raman and Time-Resolved Step-Scan FTIR Studies of Nitric Oxide Reductase from <i>Paracoccus denitrificans</i> : Comparison of the Heme b ₃ -FeB Site to That of the Heme-CuB in Oxidases. <i>Biochemistry</i> , 2003, 42, 14856-14861.	2.5	35
51	The Active Site Structure of Heme α -CuB ₂ of Cytochrome α 3Oxidase as Revealed from Resonance Raman Scattering. <i>Journal of Physical Chemistry B</i> , 2003, 107, 9865-9868.	2.6	11
52	Ligand Binding in a Docking Site of CytochromecOxidase: A Time-Resolved Step-Scan Fourier Transform Infrared Study. <i>Journal of the American Chemical Society</i> , 2003, 125, 14728-14732.	13.7	49
53	Oxygen-linked Equilibrium CuB-CO Species in Cytochrome ba ₃ Oxidase from <i>Thermus thermophilus</i> . <i>Journal of Biological Chemistry</i> , 2003, 278, 14893-14896.	3.4	27
54	Direct Detection of Fe(IV)=O Intermediates in the Cytochrome aa ₃ Oxidase from <i>Paracoccus denitrificans</i> /H ₂ O ₂ Reaction. <i>Journal of Biological Chemistry</i> , 2003, 278, 18761-18766.	3.4	35

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55	Docking Site Dynamics of ba 3-Cytochrome c Oxidase from <i>Thermus thermophilus</i> . <i>Journal of Biological Chemistry</i> , 2003, 278, 36806-36809.	3.4	27
56	Fourier Transform Infrared (FTIR) and Step-scan Time-resolved FTIR Spectroscopies Reveal a Unique Active Site in Cytochromeaa3 Oxidase from <i>Thermus thermophilus</i> . <i>Journal of Biological Chemistry</i> , 2002, 277, 32867-32874.	3.4	30
57	The Role of the Cross-link His-Tyr in the Functional Properties of the Binuclear Center in Cytochrome c Oxidase. <i>Journal of Biological Chemistry</i> , 2002, 277, 13563-13568.	3.4	61
58	Observation of the Equilibrium CuB-CO Complex and Functional Implications of the Transient Hemea3 Propionates in Cytochromeba3-CO from <i>Thermus thermophilus</i> . <i>Journal of Biological Chemistry</i> , 2002, 277, 32860-32866.	3.4	63
59	Nitric-oxide Reductase. <i>Journal of Biological Chemistry</i> , 2002, 277, 23407-23413.	3.4	72
60	Fourier Transform Infrared Evidence for a Ferric Six-Coordinate Nitrosylheme b3 Complex of Cytochrome cbb3 Oxidase from <i>Pseudomonas Stutzeri</i> at Ambient Temperature. <i>Journal of Physical Chemistry B</i> , 2002, 106, 12860-12862.	2.6	28
61	Resonance Raman Detection of a Ferrous Five-Coordinate Nitrosylhemeb3Complex in Cytochromecbb3Oxidase from <i>Pseudomonasstutzeri</i> . <i>Journal of the American Chemical Society</i> , 2002, 124, 9378-9379.	13.7	32
62	Decay of the Transient CuBâ"CO Complex Is Accompanied by Formation of the Heme Feâ"CO Complex of Cytochromecbb3â"CO at Ambient Temperature:Â Evidence from Time-Resolved Fourier Transform Infrared Spectroscopy. <i>Journal of the American Chemical Society</i> , 2002, 124, 3814-3815.	13.7	59
63	Fourier Transform Infrared Investigation of Non-Heme Fe(III) and Fe(II) Decomposition of Artemisinin and of a Simplified Trioxane Alcohol. <i>Journal of Medicinal Chemistry</i> , 2001, 44, 3150-3156.	6.4	29
64	Picosecond resonance Raman evidence of the structure of a long-lived electronic excited state of low-spin Fe(III)hemeo. <i>Chemical Physics Letters</i> , 2000, 321, 37-42.	2.6	0
65	Ferryl-oxo heme intermediate in the antimalarial mode of action of artemisinin. <i>FEBS Letters</i> , 2000, 474, 238-241.	2.8	40
66	Fourier Transform Infrared and Resonance Raman Studies of the Interaction of Azide with CytochromecOxidase from <i>Paracoccus denitrificans</i> . <i>Journal of Physical Chemistry B</i> , 1999, 103, 3030-3034.	2.6	12
67	Infrared Evidence for CuBLigation of Photodissociated CO of CytochromecOxidase at Ambient Temperatures and Accompanied Deprotonation of a Carboxyl Side Chain of Protein. <i>Journal of the American Chemical Society</i> , 1999, 121, 1415-1416.	13.7	31
68	Resonance Raman and Fourier Transform Infrared Detection of Azide Binding to the Binuclear Center of Cytochrome bo3 Oxidase from <i>Escherichia coli</i> . <i>Journal of Physical Chemistry B</i> , 1999, 103, 3942-3946.	2.6	28
69	Resonance Raman and FTIR Studies of Carbon Monoxide-Bound Cytochromeaa3-600 Oxidase of <i>Bacillus subtilis</i> . <i>Journal of Physical Chemistry B</i> , 1998, 102, 7670-7673.	2.6	19
70	Ligand Dynamics in the Binuclear Site in Cytochrome Oxidase. , 1998, , 47-56.		0
71	Low-Power Picosecond Resonance Raman Evidence for Histidine Ligation to Hemea3after Photodissociation of CO from CytochromecOxidase. <i>Journal of the American Chemical Society</i> , 1997, 119, 8409-8416.	13.7	31
72	Cytochromeo3 hemepocket relaxation subsequent to carbon monoxide photolysis from fully reduced and mixed valence cytochromebo3 oxidase. <i>Biospectroscopy</i> , 1996, 2, 331-338.	0.6	13

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73	Dioxygen activation in enzymatic systems and in inorganic models. <i>Inorganica Chimica Acta</i> , 1996, 243, 345-353.	2.4	23
74	Resonance Raman Spectroscopy of the Heme Groups of Cytochrome cbb3 in <i>Rhodobacter sphaeroides</i> . <i>The Journal of Physical Chemistry</i> , 1995, 99, 16817-16820.	2.9	22
75	Photolytic activity of early intermediates in dioxygen activation and reduction by cytochrome oxidase. <i>Journal of the American Chemical Society</i> , 1995, 117, 11260-11269.	13.7	33
76	Syntheses, structures, and properties of six novel alkali metal tin sulfides: K ₂ Sn ₂ S ₈ , .alpha.-Rb ₂ Sn ₂ S ₈ , .beta.-Rb ₂ Sn ₂ S ₈ , K ₂ Sn ₂ S ₅ , Cs ₂ Sn ₂ S ₆ , and Cs ₂ Sn ₂ S ₁₄ . <i>Inorganic Chemistry</i> , 1993, 32, 2453-2462.	4.0	103
77	Structure of the heme o prosthetic group from the terminal quinol oxidase of <i>Escherichia coli</i> . <i>Journal of the American Chemical Society</i> , 1992, 114, 1182-1187.	13.7	83
78	Optical and resonance Raman spectroscopy of the heme groups of the quinol-oxidizing cytochrome aa ₃ of <i>Bacillus subtilis</i> . <i>Biochemistry</i> , 1992, 31, 10054-10060.	2.5	29
79	O ₂ activation in cytochrome oxidase and in other heme proteins. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1992, 1101, 192-194.	1.0	15
80	Time-resolved Raman detection of .nu.(Fe-O) in an early intermediate in the reduction of oxygen by cytochrome oxidase [Erratum to document cited in CA111(9):73737r]. <i>Journal of the American Chemical Society</i> , 1990, 112, 1297-1297.	13.7	29
81	Appearance of the .nu.(FeIV:O) vibration from a ferryl-oxo intermediate in the cytochrome oxidase/dioxygen reaction. <i>Biochemistry</i> , 1990, 29, 7357-7362.	2.5	101
82	A Simple Mixer/Jet Cell for Raman Spectroscopic Studies. <i>Applied Spectroscopy</i> , 1990, 44, 742-744.	2.2	4
83	Time-resolved Raman detection of .nu.(Fe-O) in an early intermediate in the reduction of oxygen by cytochrome oxidase. <i>Journal of the American Chemical Society</i> , 1989, 111, 6439-6440.	13.7	81
84	A resonance Raman study of the higher-lying electronic states of styrene vapor. <i>Chemical Physics Letters</i> , 1986, 123, 175-181.	2.6	5