Constantinos A Varotsis

List of Publications by Year
in descending order

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84 papers	2,097 citations	186209 28 h-index	265120 42 g-index
85 all docs	85 docs citations	85 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.	1.7	5
2	Bacterial Colonization on the Surface of Copper Sulfide Minerals Probed by Fourier Transform Infrared Micro-Spectroscopy. Crystals, 2020, 10, 1002.	1.0	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.	1.7	4
4	Extracellular electron uptake from carbon-based Ï€ electron surface-donors: oxidation of graphite sheets by <i>Sulfobacillus thermosulfidooxidans</i> probed by Raman and FTIR spectroscopies. RSC Advances, 2019, 9, 19121-19125.	1.7	8
5	Photosensitivity responses of<i>Sagittula stellata</i>probed by FTIR, fluorescence and Raman microspectroscopy. RSC Advances, 2019, 9, 27391-27397.	1.7	7
6	Discrete Ligand Binding and Electron Transfer Properties of <i>ba</i>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.	7.6	7
7	Reversible temperature-dependent high- to low-spin transition in the heme Feâ€“Cu binuclear center of cytochrome <i>ba</i>₃ oxidase. RSC Advances, 2019, 9, 4776-4780.	1.7	2
8	Probing hemoglobin glyco-products by fluorescence spectroscopy. RSC Advances, 2019, 9, 37614-37619.	1.7	5
9	Bio-hydrometallurgy dynamics of copper sulfide-minerals probed by micro-FTIR mapping and Raman microspectroscopy. Minerals Engineering, 2019, 132, 39-47.	1.8	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.	1.8	13
12	Modifications of hemoglobin and myoglobin by Maillard reaction products (MRPs). PLoS ONE, 2017, 12, e0188095.	1.1	14
13	ns-Î¼s Time-Resolved Step-Scan FTIR of ba3 Oxidoreductase from Thermus thermophilus: Protonic Connectivity of w941-w946-w927. International Journal of Molecular Sciences, 2016, 17, 1657.	1.8	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.	0.5	3
15	Probing the whole ore chalcopyriteâ€“bacteria interactions and jarosite biosynthesis by Raman and FTIR microspectroscopies. Bioresource Technology, 2016, 214, 852-855.	4.8	25
16	Detection of functional hydrogen-bonded water molecules with protonated/deprotonated key carboxyl side chains in the respiratory enzyme ba₃-oxidoreductase. Physical Chemistry Chemical Physics, 2015, 17, 8113-8119.	1.3	7
17	Photobiochemical Production of Carbon Monoxide by <i>Thermus</i> thermophilus <i>ba</i>₃â€Cytochrome <i>c</i> Oxidase. Chemistry - A European Journal, 2015, 21, 4958-4961.	1.7	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.	0.5	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 Candida sp. OR3 and OR6. Minerals Engineering, 2015, 79, 84-87.	1.8	4
20	Nitric oxide activation by caa₃ oxidoreductase from Thermus thermophilus. Physical Chemistry Chemical Physics, 2015, 17, 10894-10898.	1.3	14
21	Probing the Action of Cytochrome c Oxidase. Advances in Photosynthesis and Respiration, 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. Journal of Biological Chemistry, 2013, 288, 20261-20266.	1.6	21
23	Detection of the hyponitrite species (HOâ€N=Nâ€O) in denitrification: Reactivity of NO with the heme Feâ€Cu center of cytochrome caa 3 and the heme Fe â€“Fe center of Nitric oxide reductase. FASEB Journal, 2013, 27, lb64.	0.2	0
24	Spectroscopic and Kinetic Investigation of the Fully Reduced and Mixed Valence States of ba3-Cytochrome c Oxidase from Thermus thermophilus. Journal of Biological Chemistry, 2012, 287, 37495-37507.	1.6	9
25	Non-linear vibrational modes in biomolecules: A periodic orbits description. Chemical Physics, 2012, 399, 258-263.	0.9	3
26	The origin of the FeIV=O intermediates in cytochrome aa3 oxidase. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 552-557.	0.5	6
27	Tuning Heme Functionality: The Cases of Cytochrome c Oxidase and Myoglobin Oxidation. Lecture Notes in Computer Science, 2012, , 304-315.	1.0	0
28	Regulation of Electron and Proton Transfer by the Protein Matrix of Cytochrome<i>c</i>Oxidase. Journal of Physical Chemistry B, 2011, 115, 3648-3655.	1.2	20
29	Probing Protonation/Deprotonation of Tyrosine Residues in Cytochrome ba3 Oxidase from Thermus thermophilus by Time-resolved Step-scan Fourier Transform Infrared Spectroscopy. Journal of Biological Chemistry, 2011, 286, 30600-30605.	1.6	23
30	SMARTDIAB: A Communication and Information Technology Approach for the Intelligent Monitoring, Management and Follow-up of Type 1 Diabetes Patients. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 622-633.	3.6	87
31	Vibrational Resonances and CuB Displacement Controlled by Proton Motion in Cytochrome c Oxidase. Journal of Physical Chemistry B, 2010, 114, 1136-1143.	1.2	9
32	Binding and Docking Interactions of NO, CO and O2 in Heme Proteins as Probed by Density Functional Theory. International Journal of Molecular Sciences, 2009, 10, 4137-4156.	1.8	17
33	Heme Cavity Dynamics of Photodissociated CO from ba3-Cytochrome c Oxidase: The Role of Ring-D Propionate. Journal of Physical Chemistry B, 2009, 113, 12129-12135.	1.2	7
34	Nitric oxide activation and reduction by hemeâ€“copper oxidoreductases and nitric oxide reductase. Journal of Inorganic Biochemistry, 2008, 102, 1277-1287.	1.5	34
35	Resonance Raman Spectroscopy of Nitric Oxide Reductase andcbb3Heme-Copper Oxidase. Journal of Physical Chemistry B, 2008, 112, 1851-1857.	1.2	20
36	Assigning Vibrational Spectra of Ferryl-Oxo Intermediates of CytochromecOxidase by Periodic Orbits and Molecular Dynamics. Journal of the American Chemical Society, 2008, 130, 12385-12393.	6.6	19

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37	Probing the Environment of CuB in Hemeâ˘Copper Oxidases. Journal of Physical Chemistry B, 2007, 111, 10502-10509.	1.2	14
38	Protein Dynamics and Spectroscopy for Ferryl Intermediate of Cytochrome c Oxidase: A Molecular Dynamics Approach. AIP Conference Proceedings, 2007, , .	0.3	0
39	The Structure of the Hyponitrite Species in a Heme Feï£¿Cu Binuclear Center. Angewandte Chemie - International Edition, 2007, 46, 2210-2214.	7.2	52
40	Recognition and Discrimination of Gases by the Oxygen-Sensing Signal Transducer Protein HemAT As Revealed by FTIR Spectroscopyâ€. Biochemistry, 2006, 45, 7763-7766.	1.2	32
41	Characterization of a Bimetallic-Bridging Intermediate in the Reduction of NO to N2O:â€‰ a Density Functional Theory Study. Inorganic Chemistry, 2006, 45, 3187-3190.	1.9	35
42	Two ligand-binding sites in the O2-sensing signal transducer HemAT: Implications for ligand recognition/discrimination and signaling. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 14796-14801.	3.3	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. Journal of Raman Spectroscopy, 2005, 36, 337-349.	1.2	11
44	Detection of the His-Heme Fe2+â˘NO Species in the Reduction of NO to N2O byba3-Oxidase fromThermusthermophilus. Journal of the American Chemical Society, 2005, 127, 15161-15167.	6.6	60
45	Simultaneous Resonance Raman Detection of the Heme a3-Fe-CO and CuB-CO Species in CO-bound ba3-Cytochrome c Oxidase from Thermus thermophilus. Journal of Biological Chemistry, 2004, 279, 22791-22794.	1.6	35
46	Resonance Raman Detection of the Fe2+â˘Câ˘N Modes in Hemeâ˘Copper Oxidases:Â A Probe of the Active Siteâ€. Inorganic Chemistry, 2004, 43, 4907-4910.	1.9	16
47	Detection of a Photostable Five-Coordinate Heme a3-Feâ˘CO Species and Functional Implications of His384/Î±10 in CO-Bound ba3-Cytochrome c Oxidase from Thermus thermophilus. Journal of Physical Chemistry B, 2004, 108, 5489-5491.	1.2	25
48	Time-resolved step-scan Fourier transform infrared investigation of heme-copper oxidases: implications for O2 input and H2O/H+ output channels. Biochimica Et Biophysica Acta - Bioenergetics, 2004, 1655, 347-352.	0.5	29
49	Probing the Q-Proton Pathway of ba3-Cytochrome c Oxidase by Time-Resolved Fourier Transform Infrared Spectroscopy. Biophysical Journal, 2004, 86, 2438-2444.	0.2	36
50	Time-Resolved Resonance Raman and Time-Resolved Step-Scan FTIR Studies of Nitric Oxide Reductase from Paracoccus denitrificans: Comparison of the Heme b3-FeB Site to That of the Heme-CuB in Oxidases. Biochemistry, 2003, 42, 14856-14861.	1.2	35
51	The Active Site Structure of Hemea33+Câ‹®NCuB2+of Cytochromeaa3Oxidase as Revealed from Resonance Raman Scattering. Journal of Physical Chemistry B, 2003, 107, 9865-9868.	1.2	11
52	Ligand Binding in a Docking Site of CytochromecOxidase:Â A Time-Resolved Step-Scan Fourier Transform Infrared Study. Journal of the American Chemical Society, 2003, 125, 14728-14732.	6.6	49
53	Oxygen-linked Equilibrium CuB-CO Species in Cytochrome ba3 Oxidase from Thermus thermophilus. Journal of Biological Chemistry, 2003, 278, 14893-14896.	1.6	27
54	Direct Detection of Fe(IV)=O Intermediates in the Cytochrome aa3 Oxidase from Paracoccus denitrificans/H2O2 Reaction. Journal of Biological Chemistry, 2003, 278, 18761-18766.	1.6	35

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55	Docking Site Dynamics of ba 3-Cytochrome c Oxidase from Thermus thermophilus. Journal of Biological Chemistry, 2003, 278, 36806-36809.	1.6	27
56	Fourier Transform Infrared (FTIR) and Step-scan Time-resolved FTIR Spectroscopies Reveal a Unique Active Site in Cytochromecaa3 Oxidase from Thermus thermophilus. Journal of Biological Chemistry, 2002, 277, 32867-32874.	1.6	30
57	The Role of the Cross-link His-Tyr in the Functional Properties of the Binuclear Center in Cytochrome c Oxidase. Journal of Biological Chemistry, 2002, 277, 13563-13568.	1.6	61
58	Observation of the Equilibrium CuB-CO Complex and Functional Implications of the Transient Hemea3 Propionates in Cytochromeba3-CO from Thermus thermophilus. Journal of Biological Chemistry, 2002, 277, 32860-32866.	1.6	63
59	Nitric-oxide Reductase. Journal of Biological Chemistry, 2002, 277, 23407-23413.	1.6	72
60	Fourier Transform Infrared Evidence for a Ferric Six-Coordinate Nitrosylheme b3 Complex of Cytochrome cbb3 Oxidase from Pseudomonas Stutzeri at Ambient Temperature. Journal of Physical Chemistry B, 2002, 106, 12860-12862.	1.2	28
61	Resonance Raman Detection of a Ferrous Five-Coordinate Nitrosylhemeb3Complex in Cytochromecbb3Oxidase fromPseudomonasstutzeri. Journal of the American Chemical Society, 2002, 124, 9378-9379.	6.6	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. Journal of the American Chemical Society, 2002, 124, 3814-3815.	6.6	59
63	Fourier Transform Infrared Investigation of Non-Heme Fe(III) and Fe(II) Decomposition of Artemisinin and of a Simplified Trioxane Alcohol. Journal of Medicinal Chemistry, 2001, 44, 3150-3156.	2.9	29
64	Picosecond resonance Raman evidence of the structure of a long-lived electronic excited state of low-spin Fe(III)hemeo. Chemical Physics Letters, 2000, 321, 37-42.	1.2	0
65	Ferryl-oxo heme intermediate in the antimalarial mode of action of artemisinin. FEBS Letters, 2000, 474, 238-241.	1.3	40
66	Fourier Transform Infrared and Resonance Raman Studies of the Interaction of Azide with CytochromecOxidase fromParacoccus denitrificans. Journal of Physical Chemistry B, 1999, 103, 3030-3034.	1.2	12
67	Infrared Evidence for CuBLigation of Photodissociated CO of CytochromecOxidase at Ambient Temperatures and Accompanied Deprotonation of a Carboxyl Side Chain of Protein. Journal of the American Chemical Society, 1999, 121, 1415-1416.	6.6	31
68	Resonance Raman and Fourier Transform Infrared Detection of Azide Binding to the Binuclear Center of Cytochrome bo3 Oxidase from Escherichia coli. Journal of Physical Chemistry B, 1999, 103, 3942-3946.	1.2	28
69	Resonance Raman and FTIR Studies of Carbon Monoxide-Bound Cytochromeaa3-600 Oxidase ofBacillus subtilis. Journal of Physical Chemistry B, 1998, 102, 7670-7673.	1.2	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. Journal of the American Chemical Society, 1997, 119, 8409-8416.	6.6	31
72	Cytochromeo3 hemepocket relaxation subsequent to carbon monoxide photolysis from fully reduced and mixed valence cytochromebo3 oxidase. Biospectroscopy, 1996, 2, 331-338.	0.7	13

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73	Dioxygen activation in enzymatic systems and in inorganic models. Inorganica Chimica Acta, 1996, 243, 345-353.	1.2	23
74	Resonance Raman Spectroscopy of the Heme Groups of Cytochrome cbb3 in Rhodobacter sphaeroides. The Journal of Physical Chemistry, 1995, 99, 16817-16820.	2.9	22
75	Photolytic activity of early intermediates in dioxygen activation and reduction by cytochrome oxidase. Journal of the American Chemical Society, 1995, 117, 11260-11269.	6.6	33
76	Syntheses, structures, and properties of six novel alkali metal tin sulfides: K2Sn2S8, .alpha.-Rb2Sn2S8, .beta.-Rb2Sn2S8, K2Sn2S5, Cs2Sn2S6, and Cs2SnS14. Inorganic Chemistry, 1993, 32, 2453-2462.	1.9	103
77	Structure of the heme o prosthetic group from the terminal quinol oxidase of Escherichia coli. Journal of the American Chemical Society, 1992, 114, 1182-1187.	6.6	83
78	Optical and resonance Raman spectroscopy of the heme groups of the quinol-oxidizing cytochrome aa3 of Bacillus subtilis. Biochemistry, 1992, 31, 10054-10060.	1.2	29
79	O2 activation in cytochrome oxidase and in other heme proteins. Biochimica Et Biophysica Acta - Bioenergetics, 1992, 1101, 192-194.	0.5	15
80	Time-resolved Raman detection of .mu.(Fe-O) in an early intermediate in the reduction of oxygen by cytochrome oxidase [Erratum to document cited in CA111(9):73737r]. Journal of the American Chemical Society, 1990, 112, 1297-1297.	6.6	29
81	Appearance of the .nu.(FeIV:O) vibration from a ferryl-oxo intermediate in the cytochrome oxidase/dioxygen reaction. Biochemistry, 1990, 29, 7357-7362.	1.2	101
82	A Simple Mixer/Jet Cell for Raman Spectroscopic Studies. Applied Spectroscopy, 1990, 44, 742-744.	1.2	4
83	Time-resolved Raman detection of .nu.(Fe-O) in an early intermediate in the reduction of oxygen by cytochrome oxidase. Journal of the American Chemical Society, 1989, 111, 6439-6440.	6.6	81
84	A resonance Raman study of the higher-lying electronic states of styrene vapor. Chemical Physics Letters, 1986, 123, 175-181.	1.2	5