Gurusamy Balakrishnan

List of Publications by Year
in descending order

43 papers	1,419 citations	361413 20 h-index	330143 37 g-index
44 all docs	44 docs citations	44 times ranked	1708 citing authors

#	Article	IF	Citations
1	Cu(I) recognition via cation-Ï€ and methionine interactions in CusF. Nature Chemical Biology, 2008, 4, 107-109.	8.0	220
2	CO, NO and O2 as vibrational probes of heme protein interactions. Coordination Chemistry Reviews, 2013, 257, 511-527.	18.8	128
3	Protein secondary structure from deep-UV resonance Raman spectroscopy. Journal of Raman Spectroscopy, 2006, 37, 277-282.	2.5	125
4	Time-resolved Absorption and UV Resonance Raman Spectra Reveal Stepwise Formation of T Quaternary Contacts in the Allosteric Pathway of Hemoglobin. Journal of Molecular Biology, 2004, 340, 843-856.	4.2	74
5	Protein dynamics from time resolved UV Raman spectroscopy. Current Opinion in Structural Biology, 2008, 18, 623-629.	5.7	68
6	Biogenic and Synthetic MnO₂ Nanoparticles: Size and Growth Probed with Absorption and Raman Spectroscopies and Dynamic Light Scattering. Environmental Science & Technology, 2019, 53, 4185-4197.	10.0	63
7	Dynamics of Carbon Monoxide Binding to CooA. Journal of Biological Chemistry, 2004, 279, 21096-21108.	3.4	62
8	A Conformational Switch to Î²-Sheet Structure in Cytochrome c Leads to Heme Exposure. Implications for Cardiolipin Peroxidation and Apoptosis. Journal of the American Chemical Society, 2007, 129, 504-505.	13.7	59
9	Tunable kHz Deep Ultraviolet (193â€“210 nm) Laser for Raman Applications. Applied Spectroscopy, 2005, 59, 776-781.	2.2	53
10	Hemoglobin Site-mutants Reveal Dynamical Role of Interhelical H-bonds in the Allosteric Pathway: Time-resolved UV Resonance Raman Evidence for Intra-dimer Coupling. Journal of Molecular Biology, 2004, 340, 857-868.	4.2	41
11	His26 Protonation in Cytochrome c Triggers Microsecond Î²-Sheet Formation and Heme Exposure: Implications for Apoptosis. Journal of the American Chemical Society, 2012, 134, 19061-19069.	13.7	38
12	Dynamics of Allostery in Hemoglobin: Roles of the Penultimate Tyrosine H bonds. Journal of Molecular Biology, 2006, 356, 335-353.	4.2	37
13	Differential Control of Heme Reactivity in Alpha and Beta Subunits of Hemoglobin: A Combined Raman Spectroscopic and Computational Study. Journal of the American Chemical Society, 2014, 136, 10325-10339.	13.7	34
14	Enthalpic and Entropic Stages in Î±-Helical Peptide Unfolding, from LaserT-Jump/UV Raman Spectroscopy. Journal of the American Chemical Society, 2007, 129, 12801-12808.	13.7	33
15	Heme Reactivity is Uncoupled from Quaternary Structure in Gel-Encapsulated Hemoglobin: A Resonance Raman Spectroscopic Study. Journal of the American Chemical Society, 2012, 134, 3461-3471.	13.7	26
16	The Radical Cation and Lowest Rydberg States of 1,4-Diaza[2.2.2]bicyclooctane (DABCO). Journal of Physical Chemistry A, 2000, 104, 1834-1841.	2.5	25
17	Microsecond Melting of a Folding Intermediate in a Coiled-Coil Peptide, Monitored by T-jump/UV Raman Spectroscopyâ€. Journal of Physical Chemistry B, 2006, 110, 19877-19883.	2.6	24
18	MCR-ALS analysis of two-way UV resonance Raman spectra to resolve discrete protein secondary structural motifs. Analyst, The, 2009, 134, 138-147.	3.5	24

#	Article	IF	Citations
19	Ultrafast Charge Transfer in Nickel Phthalocyanine Probed by Femtosecond Raman-Induced Kerr Effect Spectroscopy. Journal of the American Chemical Society, 2014, 136, 8746-8754.	13.7	23
20	Histidine Photodegradation during UV Resonance Raman Spectroscopyâ€. Journal of Physical Chemistry A, 2003, 107, 8047-8051.	2.5	22
21	Electron Delocalization in the Radical Cation of 1,3,6,8-Tetraazatricyclo[4.4.1.13,8]dodecane, a 4-Nitrogen-7-Electron System. Journal of the American Chemical Society, 2002, 124, 159-167.	13.7	20
22	Probing the Tryptophan Environment in Therapeutic Proteins: Implications for Higher Order Structure on Tryptophan Oxidation. Journal of Pharmaceutical Sciences, 2019, 108, 1944-1952.	3.3	20
23	Evidence of Dynamical Jahnâ^'Teller Effect on Triphenylene Radical Cation:Â Resonance Raman Spectrum and ab Initio Quantum-Chemical Calculations. Journal of Physical Chemistry A, 2000, 104, 9121-9129.	2.5	19
24	Temperature-Jump Apparatus with Raman Detection Based on a Solid-State Tunable (1.80â€“2.05 Î¼m) kHz Optical Parametric Oscillator Laser. Applied Spectroscopy, 2006, 60, 347-351.	2.2	19
25	Temperature-Jump Fluorescence Provides Evidence for Fully Reversible Microsecond Dynamics in a Thermophilic Alcohol Dehydrogenase. Journal of the American Chemical Society, 2015, 137, 10060-10063.	13.7	19
26	Detection and Identification of the Vibrational Markers for the Quantification of Methionine Oxidation in Therapeutic Proteins. Analytical Chemistry, 2018, 90, 6959-6966.	6.5	19
27	Mode Recognition in UV Resonance Raman Spectra of Imidazole: Histidine Monitoring in Proteins. Journal of Physical Chemistry B, 2012, 116, 9387-9395.	2.6	15
28	Enhanced Precision of Circular Dichroism Spectral Measurements Permits Detection of Subtle Higher Order Structural Changes in Therapeutic Proteins. Journal of Pharmaceutical Sciences, 2018, 107, 2559-2569.	3.3	15
29	Linking conformation change to hemoglobin activation via chain-selective time-resolved resonance Raman spectroscopy of protoheme/mesoheme hybrids. Journal of Biological Inorganic Chemistry, 2009, 14, 741-750.	2.6	13
30	Time-resolved resonance Raman spectroscopic studies on the triplet excited state of fluoranil. Journal of the Chemical Society, Faraday Transactions, 1997, 93, 4125-4130.	1.7	12
31	Subunit-Selective Interrogation of CO Recombination in Carbonmonoxy Hemoglobin by Isotope-Edited Time-Resolved Resonance Raman Spectroscopy. Biochemistry, 2009, 48, 3120-3126.	2.5	10
32	Bridging size and charge variants of a therapeutic monoclonal antibody by two-dimensional liquid chromatography. Journal of Pharmaceutical and Biomedical Analysis, 2020, 183, 113178.	2.8	10
33	Time-Resolved Resonance Raman Study of HbA with 220 nm Excitation:Â Probing Phenylalanine. Journal of Physical Chemistry B, 2004, 108, 15919-15927.	2.6	9
34	Kinetics of hemoglobin allostery from time-resolved UV resonance Raman spectroscopy: effect of a chemical cross-link. Journal of Raman Spectroscopy, 2000, 31, 349-352.	2.5	7
35	Distinguishing unfolding and functional conformational transitions of calmodulin using ultraviolet resonance <scp>R</scp>aman spectroscopy. Protein Science, 2014, 23, 1094-1101.	7.6	6
36	Quadrupole Dalton-Based Controlled Proteolysis Method for Characterization of Higher Order Protein Structure. Analytical Chemistry, 2019, 91, 5339-5345.	6.5	6

#	Article	IF	Citations
37	An Interlaboratory Comparison on the Characterization of a Sub-micrometer Polydisperse Particle Dispersion. Journal of Pharmaceutical Sciences, 2022, 111, 699-709.	3.3	6
38	Computational Studies of Catalytic Loop Dynamics in Yersinia Protein Tyrosine Phosphatase Using Pathway Optimization Methods. Journal of Physical Chemistry B, 2019, 123, 7840-7851.	2.6	4
39	Radical Cation of 2,5-Dimethyl-2,4-hexadiene:Â Resonance Raman Spectrum and Molecular Orbital Calculations. Journal of Physical Chemistry A, 1999, 103, 10798-10804.	2.5	2
40	Understanding the vibrational mode-specific polarization effects in femtosecond Raman-induced Kerr-effect spectroscopy. Optics Letters, 2016, 41, 5357.	3.3	2
41	Ultraviolet Resonance Raman (UVRR) Spectroscopy Studies of Structure and Dynamics of Proteins. , 2013, , 2697-2707.		2
42	A Detailed Protocol for Generation of Therapeutic Antibodies with Galactosylated Glycovariants at Laboratory Scale Using In-Vitro Glycoengineering Technology. Journal of Pharmaceutical Sciences, 2021, 110, 935-945.	3.3	1
43	Early Steps in Cytochrome C Unfolding Probed by Nanosecond Laser Induced T-jumpâˆ•UV Resonance Raman Spectroscopy. , 2010, , .		0