VÃ-ctor A LÃ³renz-FonfrÃ-a

List of Publications by Year
in descending order

60 papers	1,766 citations	279798 23 h-index	302126 39 g-index
65 all docs	65 docs citations	65 times ranked	1791 citing authors

#	Article	IF	Citations
1	Protein conformational changes and protonation dynamics probed by a single shot using quantum-cascade-laser-based IR spectroscopy. Journal of Chemical Physics, 2022, 156, .	3.0	12
2	A photoswitchable helical peptide with light-controllable interface/transmembrane topology in lipidic membranes. IScience, 2021, 24, 102771.	4.1	3
3	Retinal Vibrations in Bacteriorhodopsin are Mechanically Harmonic but Electrically Anharmonic: Evidence From Overtone and Combination Bands. Frontiers in Molecular Biosciences, 2021, 8, 749261.	3.5	3
4	Infrared Difference Spectroscopy of Proteins: From Bands to Bonds. Chemical Reviews, 2020, 120, 3466-3576.	47.7	126
5	Translocation of Enzymes into a Mesoporous MOF for Enhanced Catalytic Activity Under Extreme Conditions. Chemical Science, 2019, 10, 4082-4088.	7.4	47
6	Potential Second-Harmonic Ghost Bands in Fourier Transform Infrared (FT-IR) Difference Spectroscopy of Proteins. Applied Spectroscopy, 2018, 72, 956-963.	2.2	6
7	Orientation of non-spherical protonated water clusters revealed by infrared absorption dichroism. Nature Communications, 2018, 9, 311.	12.8	22
8	Protein dynamics observed by tunable mid-IR quantum cascade lasers across the time range from 10 ns to 1 s. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 188, 666-674.	3.9	33
9	Vibrational and Molecular Properties of Mg²⁺ Binding and Ion Selectivity in the Magnesium Channel MgtE. Journal of Physical Chemistry B, 2018, 122, 9681-9696.	2.6	5
10	Photoexcitation of the P₄⁴⁸⁰ State Induces a Secondary Photocycle That Potentially Desensitizes Channelrhodopsin-2. Journal of the American Chemical Society, 2018, 140, 9899-9903.	13.7	22
11	pH-sensitive vibrational probe reveals a cytoplasmic protonated cluster in bacteriorhodopsin. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10909-E10918.	7.1	29
12	The Grateful Infrared: Sequential Protein Structural Changes Resolved by Infrared Difference Spectroscopy. Journal of Physical Chemistry B, 2017, 121, 335-350.	2.6	69
13	Lysyl oxidaseâ€like 2 (<scp>LOXL</scp>2) oxidizes trimethylated lysine 4 in histone H3. FEBS Journal, 2016, 283, 4263-4273.	4.7	74
14	Transient Conformational Changes of Sensory Rhodopsin II Investigated by Vibrational Stark Effect Probes. Journal of Physical Chemistry B, 2016, 120, 4383-4387.	2.6	15
15	Temporal evolution of helix hydration in a light-gated ion channel correlates with ion conductance. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5796-804.	7.1	52
16	Pre-Gating Conformational Changes in the ChETA Variant of Channelrhodopsin-2 Monitored by Nanosecond IR Spectroscopy. Journal of the American Chemical Society, 2015, 137, 1850-1861.	13.7	38
17	Kinetic and Vibrational Isotope Effects of Proton Transfer Reactions in Channelrhodopsin-2. Biophysical Journal, 2015, 109, 287-297.	0.5	28
18	The Melibiose Transporter of Escherichia coli. Journal of Biological Chemistry, 2015, 290, 16261-16271.	3.4	14

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19	Changes in the hydrogen-bonding strength of internal water molecules and cysteine residues in the conductive state of channelrhodopsin-1. Journal of Chemical Physics, 2014, 141, 22D507.	3.0	39
20	Reaction Monitoring Using Midâ€Infrared Laserâ€Based Vibrational Circular Dichroism. Chirality, 2014, 26, 490-496.	2.6	20
21	Channelrhodopsin unchained: Structure and mechanism of a light-gated cation channel. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 626-642.	1.0	113
22	Gating in channelrhodopsin. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, e105.	1.0	0
23	pH Titration Monitored by Quantum Cascade Laser-Based Vibrational Circular Dichroism. Journal of Physical Chemistry B, 2014, 118, 3941-3949.	2.6	20
24	Resonance Raman and FTIR spectroscopic characterization of the closed and open states of channelrhodopsinâ€1. FEBS Letters, 2014, 588, 2301-2306.	2.8	27
25	Proton Transfer and Protein Conformation Dynamics in Photosensitive Proteins by Time-resolved Step-scan Fourier-transform Infrared Spectroscopy. Journal of Visualized Experiments, 2014, , e51622.	0.3	13
26	The substitution of Arg149 with Cys fixes the melibiose transporter in an inward-open conformation. Biochimica Et Biophysica Acta - Biomembranes, 2013, 1828, 1690-1699.	2.6	11
27	Transient protonation changes in channelrhodopsin-2 and their relevance to channel gating. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1273-81.	7.1	150
28	Studying Substrate Binding to Reconstituted Secondary Transporters by Attenuated Total Reflection Infrared Difference Spectroscopy. Methods in Molecular Biology, 2012, 914, 107-126.	0.9	8
29	Probing a Polar Cluster in the Retinal Binding Pocket of Bacteriorhodopsin by a Chemical Design Approach. PLoS ONE, 2012, 7, e42447.	2.5	3
30	Probing Specific Molecular Processes and Intermediates by Time-Resolved Fourier Transform Infrared Spectroscopy: Application to the Bacteriorhodopsin Photocycle. Journal of Physical Chemistry B, 2011, 115, 7972-7985.	2.6	20
31	Structural insights into the activation mechanism of melibiose permease by sodium binding. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 22078-22083.	7.1	36
32	Time-Resolved Photoluminescence Spectra, Lifetime Distributions and Decay-Associated Spectra of Lanthanide's Exchanged Microporousâ€“Mesoporous Materials. Journal of Nanoscience and Nanotechnology, 2010, 10, 2803-2810.	0.9	3
33	Protein Fluctuations as the Possible Origin of the Thermal Activation of Rod Photoreceptors in the Dark. Journal of the American Chemical Society, 2010, 132, 5693-5703.	13.7	37
34	Polymerâ€“microporous host interactions probed by photoluminescence spectroscopy. Physical Chemistry Chemical Physics, 2010, 12, 3031.	2.8	2
35	Comparative luminescence study of terbium-exchanged zeolites silylated with alkoxysilanes. Journal of Materials Science: Materials in Electronics, 2009, 20, 312-316.	2.2	3
36	In-Plane and Out-of-Plane Infrared Difference Spectroscopy Unravels Tilting of Helices and Structural Changes in a Membrane Protein upon Substrate Binding. Journal of the American Chemical Society, 2009, 131, 15094-15095.	13.7	16

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37	The Role and Selection of the Filter Function in Fourier Self-Deconvolution Revisited. Applied Spectroscopy, 2009, 63, 791-799.	2.2	43
38	Spectroscopic and Kinetic Evidence on How Bacteriorhodopsin Accomplishes Vectorial Proton Transport under Functional Conditions. Journal of the American Chemical Society, 2009, 131, 5891-5901.	13.7	58
39	FTIR Spectroscopy of Secondary-Structure Reorientation of Melibiose Permease Modulated by Substrate Binding. Biophysical Journal, 2008, 94, 3659-3670.	0.5	25
40	Influence of Proline on the Thermostability of the Active Site and Membrane Arrangement of Transmembrane Proteins. Biophysical Journal, 2008, 95, 4384-4395.	0.5	30
41	Method for the Estimation of the Mean Lorentzian Bandwidth in Spectra Composed of an Unknown Number of Highly Overlapped Bands. Applied Spectroscopy, 2008, 62, 689-700.	2.2	11
42	Active Internal Waters in the Bacteriorhodopsin Photocycle. A Comparative Study of the L and M Intermediates at Room and Cryogenic Temperatures by Infrared Spectroscopy. Biochemistry, 2008, 47, 4071-4081.	2.5	65
43	Photoluminescence study of terbium-exchanged ultrastable Y zeolites: Number of species, photoluminescence decays, and decay-associated spectra. Journal of Applied Physics, 2008, 104, 033530.	2.5	8
44	Electronic Properties in a Five-Coordinate Azido Complex of Nonplanar Iron(III) Porphyrin: Revisiting to Quantum Mechanical Spin Admixing. Bulletin of the Chemical Society of Japan, 2008, 81, 136-141.	3.2	13
45	2P337 Structural fluctuations affecting the retinal-binding pocket in bovine rhodopsin studied by hydrogen/deuterium exchange of Thr118(Photobiology-vision and photoreception,Poster) Tj ETQq1 1 0.784314 rgBT1/Overlock 10 Tf 50		
46	Practical Aspects of the Maximum Entropy Inversion of the Laplace Transform for the Quantitative Analysis of Multi-Exponential Data. Applied Spectroscopy, 2007, 61, 74-84.	2.2	14
47	Bayesian Maximum Entropy (Two-Dimensional) Lifetime Distribution Reconstruction from Time-Resolved Spectroscopic Data. Applied Spectroscopy, 2007, 61, 428-443.	2.2	30
48	Inter-helical Hydrogen Bonds Are Essential Elements for Intra-protein Signal Transduction: The Role of Asp115 in Bacteriorhodopsin Transport Function. Journal of Molecular Biology, 2007, 368, 666-676.	4.2	21
49	Investigation of the Hydrophobization Efficiency of Terbium-Exchanged BEA Zeolites by Means of FT-IR, TGA, Physical Adsorption, and Time-Resolved Photoluminescence. Langmuir, 2007, 23, 6781-6787.	3.5	16
50	Transformation of Time-Resolved Spectra to Lifetime-Resolved Spectra by Maximum Entropy Inversion of the Laplace Transform. Applied Spectroscopy, 2006, 60, 407-417.	2.2	28
51	1P511 Kinetic analysis of bacteriorhodopsin photocycle by transforming time-resolved FTIR spectroscopic data into a 2D-lifetime distribution(25. New methods and tools (I),Poster) Tj ETQq1 1 0.784314 rgBT1/Overlock 10 Tf 50		
52	Time-resolved rapid-scan Fourier transform infrared difference spectroscopy on a noncyclic photosystem: Rhodopsin photointermediates from Lumi to Meta II. Biopolymers, 2006, 83, 159-169.	2.4	10
53	Substrate-Induced Conformational Changes of Melibiose Permease fromEscherichia coliStudied by Infrared Difference Spectroscopyâ€. Biochemistry, 2005, 44, 3506-3514.	2.5	25
54	Maximum Entropy Deconvolution of Infrared Spectra: Use of a Novel Entropy Expression without Sign Restriction. Applied Spectroscopy, 2005, 59, 474-486.	2.2	52

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55	Curve-fitting of Fourier manipulated spectra comprising apodization, smoothing, derivation and deconvolution. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2004, 60, 2703-2710.	3.9	44
56	Curve-fitting overlapped bands: quantification and improvement of curve-fitting robustness in the presence of errors in the model and in the data. Analyst, The, 2004, 129, 1243-1250.	3.5	23
57	Structural and Functional Implications of the Instability of the ADP/ATP Transporter Purified from Mitochondria as Revealed by FTIR Spectroscopy. Biophysical Journal, 2003, 85, 255-266.	0.5	9
58	Study of Amide-proton Exchange of Escherichia coliMelibiose Permease by Attenuated Total Reflection-Fourier Transform Infrared Spectroscopy. Journal of Biological Chemistry, 2002, 277, 3380-3387.	3.4	17
59	Fourier Deconvolution in Non-Self-Deconvolving Conditions. Effective Narrowing, Signal-to-Noise Degradation, and Curve Fitting. Applied Spectroscopy, 2002, 56, 232-242.	2.2	21
60	The Secondary Structure of the Inhibited Mitochondrial ADP/ATP Transporter from Yeast Analyzed by FTIR Spectroscopy. Biochemistry, 2001, 40, 8821-8833.	2.5	12