Marie Louise Groot

List of Publications by Year
in descending order

71 papers	2,857 citations	136885 32 h-index	175177 52 g-index
75 all docs	75 docs citations	75 times ranked	2619 citing authors

#	Article	IF	Citations
1	Fast intraoperative histology-based diagnosis of gliomas with third harmonic generation microscopy and deep learning. Scientific Reports, 2022, 12, .	1.6	10
2	The effect of TGFÎ²RI inhibition on extracellular matrix structure and stiffness in hypertrophic scar-specific fibroblast-derived matrix models. Biochemical and Biophysical Research Communications, 2021, 559, 245-251.	1.0	1
3	Confinement in crystal lattice alters entire photocycle pathway of the Photoactive Yellow Protein. Nature Communications, 2020, 11, 4248.	5.8	29
4	Compact portable multiphoton microscopy reveals histopathological hallmarks of unprocessed lung tumor tissue in real time. Translational Biophotonics, 2020, 2, e202000009.	1.4	22
5	Effective enzymatic debridement of burn wounds depends on the denaturation status of collagen. Wound Repair and Regeneration, 2020, 28, 666-675.	1.5	11
6	Labelâ€free stimulated Raman scattering imaging reveals silicone breast implant material in tissue. Journal of Biophotonics, 2020, 13, e201960197.	1.1	13
7	Tensor regularized total variation for denoising of third harmonic generation images of brain tumors. Journal of Biophotonics, 2019, 12, e201800129.	1.1	4
8	Second and third harmonic generation microscopy visualizes key structural components in fresh unprocessed healthy human breast tissue. Journal of Biophotonics, 2019, 12, e201800297.	1.1	18
9	Quantitative Third Harmonic Generation Microscopy for Assessment of Glioma in Human Brain Tissue. Advanced Science, 2019, 6, 1900163.	5.6	24
10	Quantitative comparison of 3D third harmonic generation and fluorescence microscopy images. Journal of Biophotonics, 2018, 11, e201600256.	1.1	7
11	Extracting morphologies from third harmonic generation images of structurally normal human brain tissue. Bioinformatics, 2017, 33, 1712-1720.	1.8	11
12	Chapter 4 Photoactive Yellow Protein: Converting Light into a Metastable Structural Change. , 2017, , 217-166.		0
13	Third harmonic generation imaging for fast, label-free pathology of human brain tumors. Biomedical Optics Express, 2016, 7, 1889.	1.5	63
14	Cartilage Tissue Engineering: Preventing Tissue Scaffold Contraction Using a 3D-Printed Polymeric Cage. Tissue Engineering - Part C: Methods, 2016, 22, 573-584.	1.1	51
15	Unfolding of the C-Terminal JÎ± Helix in the LOV2 Photoreceptor Domain Observed by Time-Resolved Vibrational Spectroscopy. Journal of Physical Chemistry Letters, 2016, 7, 3472-3476.	2.1	52
16	Short Hydrogen Bonds and Negative Charge in Photoactive Yellow Protein Promote Fast Isomerization but not High Quantum Yield. Journal of Physical Chemistry B, 2015, 119, 2372-2383.	1.2	10
17	Ultrafast infrared spectroscopy in photosynthesis. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 2-11.	0.5	23
18	Excitation Energy Trapping and Dissipation by Ni-Substituted Bacteriochlorophyll a in Reconstituted LH1 Complexes from Rhodospirillum rubrum. Journal of Physical Chemistry B, 2013, 117, 11260-11271.	1.2	8

#	Article	IF	Citations
19	Photoionization and Electron Radical Recombination Dynamics in Photoactive Yellow Protein Investigated by Ultrafast Spectroscopy in the Visible and Near-Infrared Spectral Region. Journal of Physical Chemistry B, 2013, 117, 11042-11048.	1.2	22
20	Early Bacteriopheophytin Reduction in Charge Separation in Reaction Centers of Rhodobacter sphaeroides. Biophysical Journal, 2013, 104, 2493-2502.	0.2	36
21	Ultrafast geminate electron-radical recombination dynamics in photoactive yellow protein. EPJ Web of Conferences, 2013, 41, 07010.	0.1	0
22	Lower frequency region mid-infrared spectroscopy by chirped pulse upconversion. EPJ Web of Conferences, 2013, 41, 09004.	0.1	0
23	Closed Reaction Centers of PS1 Still Can Perform the First Steps of Charge Separation. A Mid IR Pump Probe Study with fs Resolution. Advanced Topics in Science and Technology in China, 2013, , 127-130.	0.0	0
24	Short-coherence off-axis holographic phase microscopy of live cell dynamics. Biomedical Optics Express, 2012, 3, 2184.	1.5	32
25	Ultrafast mid-infrared spectroscopy by chirped pulse upconversion in 1800-1000cm^â^'1 region. Optics Express, 2012, 20, 10562.	1.7	34
26	Spectroscopic characterization of the first ultrafast catalytic intermediate in protochlorophyllide oxidoreductase. Physical Chemistry Chemical Physics, 2012, 14, 616-625.	1.3	14
27	Excited state proton transfer in strongly enhanced GFP (sGFP2). Physical Chemistry Chemical Physics, 2012, 14, 8852.	1.3	16
28	Excited state dynamics and catalytic mechanism of the light-driven enzyme protochlorophyllide oxidoreductase. Physical Chemistry Chemical Physics, 2012, 14, 8818.	1.3	45
29	Hydrogen Bond Switching among Flavin and Amino Acids Determines the Nature of Proton-Coupled Electron Transfer in BLUF Photoreceptors. Journal of Physical Chemistry Letters, 2012, 3, 203-208.	2.1	40
30	Role of PufX in Photochemical Charge Separation in the RC-LH1 Complex from Rhodobacter sphaeroides: An Ultrafast Mid-IR Pumpâ€"Probe Investigation. Journal of Physical Chemistry B, 2012, 116, 434-444.	1.2	6
31	Primary Reactions of Bacteriophytochrome Observed with Ultrafast Mid-Infrared Spectroscopy. Journal of Physical Chemistry A, 2011, 115, 3778-3786.	1.1	43
32	Enzyme activation and catalysis: characterisation of the vibrational modes of substrate and product in protochlorophyllide oxidoreductase. Physical Chemistry Chemical Physics, 2011, 13, 2307-2313.	1.3	9
33	Single and Multi-Exciton Dynamics in Aqueous Protochlorophyllide Aggregates. Journal of Physical Chemistry A, 2011, 115, 3936-3946.	1.1	8
34	Proline 68 Enhances Photoisomerization Yield in Photoactive Yellow Protein. Journal of Physical Chemistry B, 2011, 115, 6668-6677.	1.2	17
35	Label-free live brain imaging and targeted patching with third-harmonic generation microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5970-5975.	3.3	150
36	On the Involvement of Single-Bond Rotation in the Primary Photochemistry of Photoactive Yellow Protein. Biophysical Journal, 2011, 101, 1184-1192.	0.2	32

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37	Proton transfer events in GFP. Physical Chemistry Chemical Physics, 2011, 13, 16295.	1.3	43
38	Modeling of Multi-Exciton Transient Absorption Spectra of Protochlorophyllide Aggregates in Aqueous Solution. Journal of Physical Chemistry A, 2011, 115, 11944-11951.	1.1	10
39	Protochlorophyllide Excited-State Dynamics in Organic Solvents Studied by Time-Resolved Visible and Mid-Infrared Spectroscopy. Journal of Physical Chemistry B, 2010, 114, 4335-4344.	1.2	40
40	Identification of excited-state energy transfer and relaxation pathways in the peridininâ€“chlorophyll complex: an ultrafast mid-infrared study. Physical Chemistry Chemical Physics, 2010, 12, 9256.	1.3	54
41	Combining coherent imaging and nonlinear microscopy for early-stage cancer detection. , 2009, , .		0
42	Reaction Pathways of Photoexcited Retinal in Proteorhodopsin Studied by Pumpâ^'Dumpâ^'Probe Spectroscopy. Journal of Physical Chemistry B, 2009, 113, 16251-16256.	1.2	19
43	Dynamics of Carbon Monoxide Photodissociation in Bradyrhizobium japonicum FixL Probed by Picosecond Midinfrared Spectroscopy. Journal of Physical Chemistry B, 2009, 113, 3292-3297.	1.2	10
44	CO Photodissociation Dynamics in Cytochrome P450BM3 Studied by Subpicosecond Visible and Mid-Infrared Spectroscopy. Biochemistry, 2009, 48, 6104-6110.	1.2	7
45	Single-shot two-dimensional full-range optical coherence tomography achieved by dispersion control. Optics Express, 2009, 17, 11335.	1.7	23
46	Primary Reactions of the LOV2 Domain of Phototropin Studied with Ultrafast Mid-Infrared Spectroscopy and Quantum Chemistry. Biophysical Journal, 2009, 97, 227-237.	0.2	79
47	A Femtosecond Visible/Visible and Visible/Mid-Infrared Transient Absorption Study of the Light Harvesting Complex II. Biophysical Journal, 2009, 97, 3215-3223.	0.2	18
48	Ultrafast catalytic processes and conformational changes in the light-driven enzyme protochlorophyllide oxidoreductase (POR). Biochemical Society Transactions, 2009, 37, 387-391.	1.6	18
49	Characterization of the Primary Photochemistry of Proteorhodopsin with Femtosecond Spectroscopy. Biophysical Journal, 2008, 94, 4020-4030.	0.2	35
50	Primary Charge Separation in the Photosystem II Core from Synechocystis: A Comparison of Femtosecond Visible/Midinfrared Pump-Probe Spectra of Wild-Type and Two P680 Mutants. Biophysical Journal, 2008, 94, 4783-4795.	0.2	23
51	Hydrogen Bond Switching among Flavin and Amino Acid Side Chains in the BLUF Photoreceptor Observed by Ultrafast Infrared Spectroscopy. Biophysical Journal, 2008, 95, 4790-4802.	0.2	104
52	Conformational changes in an ultrafast light-driven enzyme determine catalytic activity. Nature, 2008, 456, 1001-1004.	13.7	133
53	Identification of the First Steps in Charge Separation in Bacterial Photosynthetic Reaction Centers of Rhodobacter sphaeroides by Ultrafast Mid-Infrared Spectroscopy: Electron Transfer and Protein Dynamics. Biophysical Journal, 2008, 95, 1268-1284.	0.2	45
54	Femtosecond Time-Resolved Infrared Spectroscopy. Advances in Photosynthesis and Respiration, 2008, , 191-200.	1.0	6

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55	Excitation Energy Transfer in the Photosystem II Core Antenna Complex CP43 Studied by Femtosecond Visible/Visible and Visible/Mid-Infrared Pump Probe Spectroscopy. Journal of Physical Chemistry B, 2007, 111, 7345-7352.	1.2	31
56	Charge Separation and Energy Transfer in the Photosystem II Core Complex Studied by Femtosecond Midinfrared Spectroscopy. Biophysical Journal, 2007, 93, 2732-2742.	0.2	60
57	Triplet State Dynamics in Peridinin-Chlorophyll-a-Protein: A New Pathway of Photoprotection in LHCs?. Biophysical Journal, 2007, 93, 2118-2128.	0.2	50
58	Time-resolved methods in biophysics. 5. Femtosecond time-resolved and dispersed infrared spectroscopy on proteins. Photochemical and Photobiological Sciences, 2007, 6, 501.	1.6	52
59	Ultrafast infrared spectroscopy reveals a key step for successful entry into the photocycle for photoactive yellow protein. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15050-15055.	3.3	97
60	Initial electron donor and acceptor in isolated Photosystem II reaction centers identified with femtosecond mid-IR spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 13087-13092.	3.3	195
61	Femtosecond Visible/Visible and Visible/Mid-IR Pumpâ^'Probe Study of the Photosystem II Core Antenna Complex CP47. Journal of Physical Chemistry B, 2004, 108, 8001-8006.	1.2	50
62	Global and target analysis of fluorescence measurements on photosystem 2 reaction centers upon red excitation. Physical Chemistry Chemical Physics, 2004, 6, 4820.	1.3	14
63	Electronic states in 2-aminopurine revealed by ultrafast transient absorption and target analysis. Chemical Physics Letters, 2003, 371, 157-163.	1.2	21
64	Ultrafast enzymatic reaction dynamics in protochlorophyllide oxidoreductase. Nature Structural and Molecular Biology, 2003, 10, 491-492.	3.6	76
65	Initial Steps of Signal Generation in Photoactive Yellow Protein Revealed with Femtosecond Mid-Infrared Spectroscopyâ€. Biochemistry, 2003, 42, 10054-10059.	1.2	123
66	Coherent infrared emission from myoglobin crystals: An electric field measurement. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 1323-1328.	3.3	38
67	Spectroscopic Properties of the CP43 Core Antenna Protein of Photosystem II. Biophysical Journal, 1999, 77, 3328-3340.	0.2	119
68	Charge separation in the reaction center of photosystem II studied as a function of temperature. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 4389-4394.	3.3	75
69	Protein folding thermodynamics applied to the photocycle of the photoactive yellow protein. Biophysical Journal, 1996, 71, 365-380.	0.2	118
70	Triplet and fluorescing states of the CP47 antenna complex of photosystem II studied as a function of temperature. Biophysical Journal, 1995, 68, 281-290.	0.2	109
71	Temperature-dependent triplet and fluorescence quantum yields of the photosystem II reaction center described in a thermodynamic model. Biophysical Journal, 1994, 67, 318-330.	0.2	100