Frederic Jamme

List of Publications by Year
in descending order

101	2,409	201674	243625
papers	citations	27 h-index	44 g-index

110	110	110	3423
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Abiotic synthesis of amino acids in the recesses of the oceanic lithosphere. Nature, 2018, 564, 59-63.	27.8	170
2	DISCO: a low-energy multipurpose beamline at synchrotron SOLEIL. Journal of Synchrotron Radiation, 2009, 16, 835-841.	2.4	129
3	UltraCarbonaceous Antarctic micrometeorites, probing the Solar System beyond the nitrogen snow-line. Icarus, 2013, 224, 243-252.	2.5	103
4	Deep UV autofluorescence microscopy for cell biology and tissue histology. Biology of the Cell, 2013, 105, 277-288.	2.0	101
5	Brachypodium distachyon grain: characterization of endosperm cell walls. Journal of Experimental Botany, 2011, 62, 1001-1015.	4.8	81
6	Synchrotron UV Fluorescence Microscopy Uncovers New Probes in Cells and Tissues. Microscopy and Microanalysis, 2010, 16, 507-514.	0.4	78
7	A comprehensive overview of grain development in Brachypodium distachyon variety Bd21. Journal of Experimental Botany, 2012, 63, 739-755.	4.8	75
8	Ion irradiation of Allende meteorite probed by visible, IR, and Raman spectroscopies. Icarus, 2014, 237, 278-292.	2.5	60
9	Wheat endosperm cell walls: Spatial heterogeneity of polysaccharide structure and composition using micro-scale enzymatic fingerprinting and FT-IR microspectroscopy. Journal of Cereal Science, 2009, 50, 312-317.	3.7	58
10	Multimodal Spectroscopy Combining Time-of-Flight-Secondary Ion Mass Spectrometry, Synchrotron-FT-IR, and Synchrotron-UV Microspectroscopies on the Same Tissue Section. Analytical Chemistry, 2010, 82, 3963-3968.	6.5	53
11	Mid-IR, Far-IR, Raman micro-spectroscopy, and FESEMâ€“EDX study of IDP L2021C5: Clues to its origin. Icarus, 2011, 212, 896-910.	2.5	53
12	Synchrotron UVâ^'Visible Multispectral Luminescence Microimaging of Historical Samples. Analytical Chemistry, 2011, 83, 1737-1745.	6.5	52
13	Toxicity of Food-Grade TiO2 to Commensal Intestinal and Transient Food-Borne Bacteria: New Insights Using Nano-SIMS and Synchrotron UV Fluorescence Imaging. Frontiers in Microbiology, 2018, 9, 794.	3.5	52
14	DISCO synchrotron-radiation circular-dichroism endstation at SOLEIL. Journal of Synchrotron Radiation, 2012, 19, 831-835.	2.4	49
15	Long-term neurologic and cardiac correction by intrathecal gene therapy in Pompe disease. Acta Neuropathologica Communications, 2017, 5, 66.	5.2	46
16	Change in wall composition of transfer and aleurone cells during wheat grain development. Planta, 2011, 233, 393-406.	3.2	45
17	Chemometric Strategies To Unmix Information and Increase the Spatial Description of Hyperspectral Images: A Single-Cell Case Study. Analytical Chemistry, 2013, 85, 6303-6311.	6.5	43
18	Patterns of metal distribution in hypersaline microbialites during early diagenesis: Implications for the fossil record. Geobiology, 2017, 15, 259-279.	2.4	40

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19	Aleurone Cell Walls of Wheat Grain: High Spatial Resolution Investigation Using Synchrotron Infrared Microspectroscopy. Applied Spectroscopy, 2008, 62, 895-900.	2.2	37
20	Synchrotron FTIR microspectroscopy of the yeast Saccharomyces cerevisiae after exposure to plasma-deposited nanosilver-containing coating. Analytical and Bioanalytical Chemistry, 2010, 396, 1441-1450.	3.7	37
21	Exploring the breakdown of dairy protein gels during in vitro gastric digestion using time-lapse synchrotron deep-UV fluorescence microscopy. Food Chemistry, 2018, 239, 898-910.	8.2	37
22	Characterization of Pustular Mats and Related Rivularia-Rich Laminations in Oncoids From the Laguna Negra Lake (Argentina). Frontiers in Microbiology, 2018, 9, 996.	3.5	35
23	In situ thermal denaturation of myofibre sub-type proteins studied by immunohistofluorescence and synchrotron radiation FT-IR microspectroscopy. Food Chemistry, 2012, 134, 1044-1051.	8.2	31
24	Handling Different Spatial Resolutions in Image Fusion by Multivariate Curve Resolution-Alternating Least Squares for Incomplete Image Multisets. Analytical Chemistry, 2018, 90, 6757-6765.	6.5	31
25	Desorption of Hot Molecules from Photon Irradiated Interstellar Ices. Astrophysical Journal, 2008, 673, 1233-1239.	4.5	30
26	In Situ Tracking of Enzymatic Breakdown of Starch Granules by Synchrotron UV Fluorescence Microscopy. Analytical Chemistry, 2011, 83, 989-993.	6.5	30
27	Understanding the cryotolerance of lactic acid bacteria using combined synchrotron infrared and fluorescence microscopies. Analyst, The, 2015, 140, 5920-5928.	3.5	28
28	Single Cell Synchrotron FT-IR Microspectroscopy Reveals a Link between Neutral Lipid and Storage Carbohydrate Fluxes in S. cerevisiae. PLoS ONE, 2013, 8, e74421.	2.5	28
29	Synchrotron FTIR microspectroscopy of Escherichia coli at single-cell scale under silver-induced stress conditions. Analytical and Bioanalytical Chemistry, 2013, 405, 2685-2697.	3.7	25
30	Phenolic distribution in apple epidermal and outer cortex tissue by multispectral deep-UV autofluorescence cryo-imaging. Plant Science, 2019, 283, 51-59.	3.6	24
31	Extensive investigation of the ultrastructure of kink-bands in flax fibres. Industrial Crops and Products, 2021, 164, 113368.	5.2	24
32	Photosensitizer effects on cancerous cells: A combined study using synchrotron infrared and fluorescence microscopies. Biochimica Et Biophysica Acta - General Subjects, 2008, 1780, 854-860.	2.4	23
33	Synchrotron Time-Lapse Imaging of Lignocellulosic Biomass Hydrolysis: Tracking Enzyme Localization by Protein Autofluorescence and Biochemical Modification of Cell Walls by Microfluidic Infrared Microspectroscopy. Frontiers in Plant Science, 2018, 9, 200.	3.6	23
34	A differential pumping system to deliver windowless VUV photons at atmospheric pressure. Journal of Synchrotron Radiation, 2011, 18, 546-549.	2.4	22
35	3D Imaging of Enzymes Working in Situ. Analytical Chemistry, 2014, 86, 5265-5270.	6.5	22
36	Synchrotron Ultraviolet Microspectroscopy on Rat Cortical Bone: Involvement of Tyrosine and Tryptophan in the Osteocyte and Its Environment. PLoS ONE, 2012, 7, e43930.	2.5	22

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37	Escherichia coli under Ionic Silver Stress: An Integrative Approach to Explore Transcriptional, Physiological and Biochemical Responses. PLoS ONE, 2015, 10, e0145748.	2.5	21
38	Subcellular membrane fluidity of Lactobacillus delbrueckii subsp. bulgaricus under cold and osmotic stress. Applied Microbiology and Biotechnology, 2017, 101, 6907-6917.	3.6	21
39	Action of lytic polysaccharide monooxygenase on plant tissue is governed by cellular type. Scientific Reports, 2017, 7, 17792.	3.3	21
40	Macromolecular Orientation in Glassy Starch Materials That Exhibit Shape Memory Behavior. Macromolecules, 2010, 43, 9854-9858.	4.8	20
41	Optical Signatures Derived From Deep UV to NIR Excitation Discriminates Healthy Samples From Low and High Grades Glioma. Scientific Reports, 2019, 9, 8786.	3.3	20
42	Toxicity and phototoxicity of Hypocrellin A on malignant human cell lines, evidence of a synergistic action of photodynamic therapy with Imatinib mesylate. Journal of Photochemistry and Photobiology B: Biology, 2010, 99, 100-104.	3.8	19
43	Surface science investigations of photoprocesses in model interstellar ices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 919-924.	2.1	18
44	Coupling hyperspectral image data having different spatial resolutions using Multiple Co-inertia Analysis. Chemometrics and Intelligent Laboratory Systems, 2012, 117, 200-212.	3.5	18
45	Photon- and electron-stimulated desorption from laboratory models of interstellar ice grains. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 799-806.	2.1	17
46	Multi-scale characterization of thermoplastic starch structure using Second Harmonic Generation imaging and NMR. Carbohydrate Polymers, 2018, 194, 80-88.	10.2	17
47	Evolution of the ultrastructure and polysaccharide composition of flax fibres over time: When history meets science. Carbohydrate Polymers, 2022, 291, 119584.	10.2	17
48	Physiological and Biochemical Responses of Yarrowia lipolytica to Dehydration Induced by Air-Drying and Freezing. PLoS ONE, 2014, 9, e111138.	2.5	16
49	Microfibril angle of elementary flax fibres investigated with polarised second harmonic generation microscopy. Industrial Crops and Products, 2020, 156, 112847.	5.2	16
50	Deep UV excited muscle cell autofluorescence varies with the fibre type. Analyst, The, 2015, 140, 4189-4196.	3.5	15
51	Microscopic imaging of biphasic oilâ€air flow in <scp>F</scp>rench fries using synchrotron radiation. AICHE Journal, 2015, 61, 1427-1446.	3.6	15
52	Atmospheric pressure photoionization using tunable VUV synchrotron radiation. Nuclear Instruments & Methods in Physics Research B, 2012, 279, 114-117.	1.4	14
53	Synchrotron Infrared and Deep UV Fluorescent Microspectroscopy Study of PB1-F2 Î²-Aggregated Structures in Influenza A Virus-infected Cells. Journal of Biological Chemistry, 2016, 291, 9060-9072.	3.4	14
54	Time resolved transient circular dichroism spectroscopy using synchrotron natural polarization. Structural Dynamics, 2019, 6, 054307.	2.3	14

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55	FTIR micro-spectroscopy using synchrotron-based and thermal source-based radiation for probing live bacteria. Analytical and Bioanalytical Chemistry, 2020, 412, 7049-7061.	3.7	14
56	Towards a fully optimised organic LED device: Analysis of surface synthesis using coupling reactions by ToF-SIMS. Applied Surface Science, 2006, 252, 6672-6675.	6.1	13
57	Infrared synchrotron radiation from bending magnet and edge radiation sources for the study of orientation and conformation in anisotropic materials. Review of Scientific Instruments, 2011, 82, 033710.	1.3	13
58	Hyperspectral Deep Ultraviolet Autofluorescence of Muscle Fibers Is Affected by Postmortem Changes. Journal of Agricultural and Food Chemistry, 2015, 63, 4782-4789.	5.2	13
59	Mobility of pectin methylesterase in pectin/cellulose gels is enhanced by the presence of cellulose and by its catalytic capacity. Scientific Reports, 2019, 9, 12551.	3.3	13
60	The fusion of lipid droplets is involved in fat loss during cooking of duck â€œfoie grasâ€: Meat Science, 2011, 89, 377-383.	5.5	12
61	Tracking hidden organic carbon in rocks using chemometrics and hyperspectral imaging. Scientific Reports, 2018, 8, 2396.	3.3	12
62	Infra-red imaging of bulk water and waterâ€“solid interfaces under stable and metastable conditions. Physical Chemistry Chemical Physics, 2012, 14, 2864.	2.8	11
63	Multimodal Analysis of Central Nervous System Tumor Tissue Endogenous Fluorescence With Multiscale Excitation. Frontiers in Physics, 2018, 6, .	2.1	11
64	Monitoring food structure during digestion using small-angle scattering and imaging techniques. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 570, 96-106.	4.7	11
65	Molecular changes tracking through multiscale fluorescence microscopy differentiate Meningioma grades and non-tumoral brain tissues. Scientific Reports, 2021, 11, 3816.	3.3	11
66	Diffusion of Ofloxacin in the Endocarditis Vegetation Assessed with Synchrotron Radiation UV Fluorescence Microspectrocopy. PLoS ONE, 2011, 6, e19440.	2.5	11
67	Protein Matrix Involved in the Lipid Retention of Foie Gras during Cooking: A Multimodal Hyperspectral Imaging Study. Journal of Agricultural and Food Chemistry, 2014, 62, 5954-5962.	5.2	10
68	The endosperm cavity of wheat grains contains a highly hydrated gel of arabinoxylan. Plant Science, 2021, 306, 110845.	3.6	10
69	Lessons on textile history and fibre durability from a 4,000-year-old Egyptian flax yarn. Nature Plants, 2021, 7, 1200-1206.	9.3	10
70	Fourier Transform Infrared Microspectroscopy of Endocarditis Vegetation. Applied Spectroscopy, 2010, 64, 901-906.	2.2	9
71	Synchrotron infrared confocal microscope: Application to infrared 3D spectral imaging. Journal of Physics: Conference Series, 2013, 425, 142002.	0.4	9
72	Neighbouring pixel data augmentation: a simple way to fuse spectral and spatial information for hyperspectral imaging data analysis. Journal of Chemometrics, 2017, 31, e2882.	1.3	9

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73	The shell matrix of the european thorny oyster, Spondylus gaederopus: microstructural and molecular characterization. Journal of Structural Biology, 2020, 211, 107497.	2.8	9
74	Coupling hyperspectral image data having different spatial resolutions by extending multivariate inter-battery Tucker analysis. Chemometrics and Intelligent Laboratory Systems, 2012, 113, 43-51.	3.5	8
75	Investigations by AFM of Ageing Mechanisms in PLA-Flax Fibre Composites during Garden Composting. Polymers, 2021, 13, 2225.	4.5	8
76	Synchrotron UV fluorescence microscopy for determining membrane fluidity modification of single bacteria with temperatures. Biomedical Spectroscopy and Imaging, 2014, 3, 203-210.	1.2	7
77	Oversolubility in the microvicinity of solidâ€“solution interfaces. Physical Chemistry Chemical Physics, 2016, 18, 14874-14885.	2.8	7
78	Synchrotron multimodal imaging in a whole cell reveals lipid droplet core organization. Journal of Synchrotron Radiation, 2020, 27, 772-778.	2.4	7
79	Chemical, morphological and mechanical study of the ageing of textile flax fibers from 17th/18th-century paintings on canvas. Journal of Cultural Heritage, 2021, 52, 202-214.	3.3	7
80	Interstellar and interplanetary carbonaceous solids in the laboratory. Geochemical Journal, 2014, 48, 511-518.	1.0	6
81	Evolution of the flax cell wall composition during development and after gravitropism by synchrotron fluorescence imaging. Industrial Crops and Products, 2022, 175, 114256.	5.2	6
82	Anticipating global warming effects: A comprehensive study of drought impact of both flax plants and fibres. Industrial Crops and Products, 2022, 184, 115011.	5.2	6
83	Synchrotron radiation infrared microspectroscopy to assess the activity of vancomycin against endocarditis vegetation bacteria. Journal of Microbiological Methods, 2011, 85, 235-238.	1.6	4
84	Single vs. two-photon microscopy for label free intrinsic tissue studies in the UV light region. Analyst, The, 2014, 139, 2663-2667.	3.5	4
85	PB1-F2 amyloid-like fibers correlate with proinflammatory signaling and respiratory distress in influenza-infected mice. Journal of Biological Chemistry, 2021, 297, 100885.	3.4	3
86	Detection and localization of calcium oxalate in kidney using synchrotron deep ultraviolet fluorescence microscopy. Journal of Synchrotron Radiation, 2022, 29, 214-223.	2.4	3
87	A multi-scale approach of the mechanisms underlying exopolysaccharide auto-organization in the Proteus mirabilis extracellular matrix. Analyst, The, 2014, 139, 4879-4886.	3.5	2
88	Second-Harmonic Generation of Halloysite Nanotubes for Bioimaging. ACS Applied Nano Materials, 2021, 4, 4351-4355.	5.0	2
89	DUV cleaning of aluminium optics left at the atmosphere. Journal of Physics: Conference Series, 2013, 425, 122005.	0.4	1
90	Aspects of Chemical Composition of Exodermal Cell Walls in Roots of Ni-Hyperaccumulating and Non-Hyperaccumulating Genotypes of Senecio coronatus. Microscopy and Microanalysis, 2014, 20, 1276-1277.	0.4	1

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91	Interstellar and interplanetary solids in the laboratory. Proceedings of the International Astronomical Union, 2015, 11, 416-419.	0.0	1
92	Selected case studies presenting advanced methodologies to study food and chemical industry materials: From the structural characterization of raw materials to the multisensory integration of food. Innovative Food Science and Emerging Technologies, 2018, 46, 29-40.	5.6	1
93	Preferred metabolic pathway of bovine muscle fibre revealed by synchrotronâ€“deep ultraviolet fluorescence imaging. Journal of Spectral Imaging, 0, , .	0.0	1
94	Assessment of adeno-associated virus gene therapies efficacy on acid alpha-glucosidase restoration and glycogen storage correction in cardiac muscle of Pompe disease mice using synchrotron infrared and ultraviolet microspectroscopies. Journal of Spectral Imaging, 0, , .	0.0	1
95	The water clock of Proteus mirabilis paces colony periodic and synchronous swarming. Nature Precedings, 2010, , .	0.1	0
96	Detection of human brain tumor infiltration with multimodal multiscale optical analysis. Proceedings of SPIE, 2017, , .	0.8	0
97	Cryopreservation-related stresses in Lactobacillus delbrueckii SUBSP. Bulgaricus: Global and multi-scale study. Cryobiology, 2018, 85, 167.	0.7	0
98	Tomographie de fluorescence DUV sur des systÃ¨mes dâ€™intÃ©rÃªt biologique. , 2013, , 43-45.	0.1	0
99	Microscopies synchrotron Ã SOLEIL. Photoniques, 2014, , 30-33.	0.1	0
100	Discrimination between primary low and high grade tumor and secondary metastasis tumor from deep-UV to NIR. , 2019, , .		0
101	Impact of the influenza protein PB1-F2 on the biochemical composition of human epithelial cells revealed by synchrotron Fourier transform infrared spectromicroscopy. Journal of Spectral Imaging, 0, , .	0.0	0