

Matthieu RÃ©frÃ©giers

List of Publications by Year in descending order

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122
papers

5,581
citations

134610

34
h-index

100535

70
g-index

138
all docs

138
docs citations

138
times ranked

9291
citing authors

#	ARTICLE	IF	CITATIONS
1	Evolution of the flax cell wall composition during development and after gravitropism by synchrotron fluorescence imaging. <i>Industrial Crops and Products</i> , 2022, 175, 114256.	2.5	6
2	Fluorescence microscopy and photodielectric characterization studies of the composite films of polyvinyl alcohol and tryptophan functionalized silver nanoparticles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 634, 128050.	2.3	5
3	Detection and localization of calcium oxalate in kidney using synchrotron deep ultraviolet fluorescence microscopy. <i>Journal of Synchrotron Radiation</i> , 2022, 29, 214-223.	1.0	3
4	Pathologies related to abnormal deposits in dermatology: a physico-chemical approach. <i>Comptes Rendus Chimie</i> , 2022, 25, 445-476.	0.2	10
5	Disorderedâ€“Ordered Protein Binary Classification by Circular Dichroism Spectroscopy. <i>Frontiers in Molecular Biosciences</i> , 2022, 9, 863141.	1.6	18
6	BeStSel: webserver for secondary structure and fold prediction for protein CD spectroscopy. <i>Nucleic Acids Research</i> , 2022, 50, W90-W98.	6.5	103
7	Application of Synchrotron Radiation-Based Micro-Analysis on Cadmium Yellows in Pablo Picasso's <i>Femme</i>. <i>Microscopy and Microanalysis</i> , 2022, 28, 1504-1513.	0.2	6
8	Molecular changes tracking through multiscale fluorescence microscopy differentiate Meningioma grades and non-tumoral brain tissues. <i>Scientific Reports</i> , 2021, 11, 3816.	1.6	11
9	Second-Harmonic Generation of Halloysite Nanotubes for Bioimaging. <i>ACS Applied Nano Materials</i> , 2021, 4, 4351-4355.	2.4	2
10	Investigation by Synchrotron Radiation Circular Dichroism of the Secondary Structure Evolution of Pepsin under Oxidative Environment. <i>Foods</i> , 2021, 10, 998.	1.9	4
11	PB1-F2 amyloid-like fibers correlate with proinflammatory signaling and respiratory distress in influenza-infected mice. <i>Journal of Biological Chemistry</i> , 2021, 297, 100885.	1.6	3
12	Novelâ€“ markers to early detect degradation on cellulose nitrate-based heritage at the submicrometer level using synchrotron UVâ€“VIS multispectral luminescence. <i>Scientific Reports</i> , 2021, 11, 20208.	1.6	8
13	Microchemical analysis of Leonardo da Vinciâ€™s lead white paints reveals knowledge and control over pigment scattering properties. <i>Scientific Reports</i> , 2020, 10, 21715.	1.6	5
14	The challenge of intracellular antibiotic accumulation, a function of fluoroquinolone influx versus bacterial efflux. <i>Communications Biology</i> , 2020, 3, 198.	2.0	34
15	Synchrotron multimodal imaging in a whole cell reveals lipid droplet core organization. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 772-778.	1.0	7
16	Antibiotics and efflux: combined spectrofluorimetry and mass spectrometry to evaluate the involvement of concentration and efflux activity in antibiotic intracellular accumulation. <i>Journal of Antimicrobial Chemotherapy</i> , 2019, 74, 58-65.	1.3	15
17	Electronic Circular Dichroism Spectroscopy of Proteins. <i>CheM</i> , 2019, 5, 2751-2774.	5.8	100
18	Time resolved transient circular dichroism spectroscopy using synchrotron natural polarization. <i>Structural Dynamics</i> , 2019, 6, 054307.	0.9	14

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19	Synchrotron Deep-UV Photoluminescence Imaging for the Submicrometer Analysis of Chemically Altered Zinc White Oil Paints. <i>Analytical Chemistry</i> , 2019, 91, 14887-14895.	3.2	14
20	Optical Signatures Derived From Deep UV to NIR Excitation Discriminates Healthy Samples From Low and High Grades Glioma. <i>Scientific Reports</i> , 2019, 9, 8786.	1.6	20
21	Photoluminescence Micro-imaging Sheds New Light on the Development of Metal Soaps in Oil Paintings. <i>Cultural Heritage Science</i> , 2019, , 211-225.	0.3	5
22	Mechanistic aspects of maltotriose-conjugate translocation to the Gram-negative bacteria cytoplasm. <i>Life Science Alliance</i> , 2019, 2, e201800242.	1.3	11
23	Discrimination between primary low and high grade tumor and secondary metastasis tumor from deep-UV to NIR. , 2019, , .		0
24	Improved Structural Estimation of Disordered Proteins by CD Spectroscopy: Method Development and Application. <i>Biophysical Journal</i> , 2018, 114, 587a.	0.2	0
25	Protein Fold Recognition by Circular Dichroism Spectroscopy. <i>Biophysical Journal</i> , 2018, 114, 174a.	0.2	3
26	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. <i>Innovative Food Science and Emerging Technologies</i> , 2018, 46, 29-40.	2.7	1
27	Fluorescence enlightens RND pump activity and the intrabacterial concentration of antibiotics. <i>Research in Microbiology</i> , 2018, 169, 432-441.	1.0	12
28	Abiotic synthesis of amino acids in the recesses of the oceanic lithosphere. <i>Nature</i> , 2018, 564, 59-63.	13.7	170
29	Multimodal Analysis of Central Nervous System Tumor Tissue Endogenous Fluorescence With Multiscale Excitation. <i>Frontiers in Physics</i> , 2018, 6, .	1.0	11
30	Spectrofluorimetric quantification of antibiotic drug concentration in bacterial cells for the characterization of translocation across bacterial membranes. <i>Nature Protocols</i> , 2018, 13, 1348-1361.	5.5	46
31	DUV fluorescence bioimaging study of the interaction of partially reduced graphene oxide and liver cancer cells. <i>2D Materials</i> , 2018, 5, 045019.	2.0	3
32	Toxicity of Food-Grade TiO2 to Commensal Intestinal and Transient Food-Borne Bacteria: New Insights Using Nano-SIMS and Synchrotron UV Fluorescence Imaging. <i>Frontiers in Microbiology</i> , 2018, 9, 794.	1.5	52
33	Characterization of Pustular Mats and Related Rivularia-Rich Laminations in Oncoids From the Laguna Negra Lake (Argentina). <i>Frontiers in Microbiology</i> , 2018, 9, 996.	1.5	35
34	BeStSel: a web server for accurate protein secondary structure prediction and fold recognition from the circular dichroism spectra. <i>Nucleic Acids Research</i> , 2018, 46, W315-W322.	6.5	771
35	Microspectroscopic Investigation of Metal Soaps in Oil Paintings--a Case Study on late 19th Century		

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37	The physicochemical properties of membranes correlate with the NADPH oxidase activity. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2017, 1861, 3520-3530.	1.1	10
38	Food-grade TiO ₂ impairs intestinal and systemic immune homeostasis, initiates preneoplastic lesions and promotes aberrant crypt development in the rat colon. <i>Scientific Reports</i> , 2017, 7, 40373.	1.6	309
39	Mechanisms of envelope permeability and antibiotic influx and efflux in Gram-negative bacteria. <i>Nature Microbiology</i> , 2017, 2, 17001.	5.9	238
40	Detection of human brain tumor infiltration with multimodal multiscale optical analysis. <i>Proceedings of SPIE</i> , 2017, , .	0.8	0
41	Microspectrofluorimetry to dissect the permeation of ceftazidime in Gram-negative bacteria. <i>Scientific Reports</i> , 2017, 7, 986.	1.6	24
42	Interaction of amino acid-functionalized silver nanoparticles and <i>Candida albicans</i> polymorphs: A deep-UV fluorescence imaging study. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 155, 341-348.	2.5	11
43	The effect of origin of the gelatine and ageing on the secondary structure and water dissolution. <i>Food Hydrocolloids</i> , 2017, 66, 378-388.	5.6	29
44	Fluoroquinolone structure and translocation flux across bacterial membrane. <i>Scientific Reports</i> , 2017, 7, 9821.	1.6	48
45	Subcellular membrane fluidity of <i>Lactobacillus delbrueckii</i> subsp. <i>bulgaricus</i> under cold and osmotic stress. <i>Applied Microbiology and Biotechnology</i> , 2017, 101, 6907-6917.	1.7	21
46	Action of lytic polysaccharide monoxygenase on plant tissue is governed by cellular type. <i>Scientific Reports</i> , 2017, 7, 17792.	1.6	21
47	Platinum nanoparticles: an exquisite tool to overcome radioresistance. <i>Cancer Nanotechnology</i> , 2017, 8, 4.	1.9	34
48	Endogenous Fluorescence Analysis under Deep UV Excitation to Discriminate Human Brain Tumor Tissue - Difference between Glioblastoma and Healthy Control Tissue. , 2017, , .		0
49	Status of backthinned AlGaIn based focal plane arrays for deep-UV imaging. , 2017, , .		0
50	Exploring the arachidonic acid-induced structural changes in phagocyte NADPH oxidase p47 ^{phox} and p67 ^{phox} via thiol accessibility and SRCD spectroscopy. <i>FEBS Journal</i> , 2016, 283, 2896-2910.	2.2	11
51	Deep UV fluorescence imaging study of <i>Candida albicans</i> cells treated with gold-riboflavin hydrocolloids. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	1.5	2
52	High spatial dynamics-photoluminescence imaging reveals the metallurgy of the earliest lost-wax cast object. <i>Nature Communications</i> , 2016, 7, 13356.	5.8	57
53	Structure Change from \hat{I}^2 -Strand and Turn to \hat{I}^{\pm} -Helix in Histone H2A-H2B Induced by DNA Damage Response. <i>Biophysical Journal</i> , 2016, 111, 69-78.	0.2	9
54	A fluorescent nanoprobe for single bacterium tracking: functionalization of silver nanoparticles with tryptophan to probe the nanoparticle accumulation with single cell resolution. <i>Analyst</i> , The, 2016, 141, 1988-1996.	1.7	14

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55	Synchrotron Infrared and Deep UV Fluorescent Microspectroscopy Study of PB1-F2 \hat{I}^2 -Aggregated Structures in Influenza A Virus-infected Cells. <i>Journal of Biological Chemistry</i> , 2016, 291, 9060-9072.	1.6	14
56	Combining field effect scanning electron microscopy, deep UV fluorescence, Raman, classical and synchrotron radiation Fourier transform Infra-Red Spectroscopy in the study of crystal-containing kidney biopsies. <i>Comptes Rendus Chimie</i> , 2016, 19, 1439-1450.	0.2	23
57	Microspectrometric insights on the uptake of antibiotics at the single bacterial cell level. <i>Scientific Reports</i> , 2015, 5, 17968.	1.6	50
58	Deep UV excited muscle cell autofluorescence varies with the fibre type. <i>Analyst, The</i> , 2015, 140, 4189-4196.	1.7	15
59	Accurate secondary structure prediction and fold recognition for circular dichroism spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E3095-103.	3.3	1,215
60	Synchrotron DUV luminescence micro-imaging to identify and map historical organic coatings on wood. <i>Analyst, The</i> , 2015, 140, 5344-5353.	1.7	14
61	Binding site of different tannins on a human salivary proline-rich protein evidenced by dissociative photoionization tandem mass spectrometry. <i>Tetrahedron</i> , 2015, 71, 3039-3044.	1.0	37
62	Hyperspectral Deep Ultraviolet Autofluorescence of Muscle Fibers Is Affected by Postmortem Changes. <i>Journal of Agricultural and Food Chemistry</i> , 2015, 63, 4782-4789.	2.4	13
63	X-ray-induced radiophotodynamic therapy (RPDT) using lanthanide micelles: Beyond depth limitations. <i>Nano Research</i> , 2015, 8, 2373-2379.	5.8	77
64	Tryptophan-functionalized gold nanoparticles for deep UV imaging of microbial cells. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 135, 742-750.	2.5	35
65	Using DNA Origami Nanostructures To Determine Absolute Cross Sections for UV Photon-Induced DNA Strand Breakage. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4589-4593.	2.1	30
66	Cell localisation of gadolinium-based nanoparticles and related radiosensitising efficacy in glioblastoma cells. <i>Cancer Nanotechnology</i> , 2014, 5, 6.	1.9	68
67	Single vs. two-photon microscopy for label free intrinsic tissue studies in the UV light region. <i>Analyst, The</i> , 2014, 139, 2663-2667.	1.7	4
68	Protein Matrix Involved in the Lipid Retention of <i>Foie Gras</i> during Cooking: A Multimodal Hyperspectral Imaging Study. <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 5954-5962.	2.4	10
69	3D Imaging of Enzymes Working in Situ. <i>Analytical Chemistry</i> , 2014, 86, 5265-5270.	3.2	22
70	Synchrotron UV fluorescence microscopy for determining membrane fluidity modification of single bacteria with temperatures. <i>Biomedical Spectroscopy and Imaging</i> , 2014, 3, 203-210.	1.2	7
71	A New Synchrotron Approach to Study Ancient Materials: UV/Visible Photoluminescence Micro-Imaging. <i>Microscopy and Microanalysis</i> , 2014, 20, 2022-2023.	0.2	1
72	Microscopies synchrotron Å SOLEIL. <i>Photoniques</i> , 2014, , 30-33.	0.0	0

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73	Pigment Organization Effects on Energy Transfer and <i>Chl a</i> Emission Imaged in the Diatoms <i>C. meneghiniana</i> and <i>P. tricornutum</i> In Vivo: A Confocal Laser Scanning Fluorescence (CLSF) Microscopy and Spectroscopy Study. <i>Journal of Physical Chemistry B</i> , 2013, 117, 11272-11281.	1.2	8
74	Improved Secondary Structure Determination and Fold Prediction by Circular Dichroism Spectroscopy. <i>Biophysical Journal</i> , 2013, 104, 567a.	0.2	0
75	Diffusion of Aromatic Solutes in Aliphatic Polymers above Glass Transition Temperature. <i>Macromolecules</i> , 2013, 46, 874-888.	2.2	32
76	A multiscale photoluminescence approach to discriminate among semiconducting historical zinc white pigments. <i>Analyst</i> , 2013, 138, 4463.	1.7	39
77	New Peptide-Based Antimicrobials for Tackling Drug Resistance in Bacteria: Single-Cell Fluorescence Imaging. <i>ACS Medicinal Chemistry Letters</i> , 2013, 4, 556-559.	1.3	23
78	Deep UV autofluorescence microscopy for cell biology and tissue histology. <i>Biology of the Cell</i> , 2013, 105, 277-288.	0.7	101
79	Application of VUV synchrotron radiation to proteomic and analytical mass spectrometry. <i>Journal of Physics: Conference Series</i> , 2013, 425, 122001.	0.3	2
80	Innenteilbild: Photodissociation and Dissociative Photoionization Mass Spectrometry of Proteins and Noncovalent Protein-Ligand Complexes (<i>Angew. Chem.</i> 32/2013). <i>Angewandte Chemie</i> , 2013, 125, 8330-8330.	1.6	0
81	Photodissociation and Dissociative Photoionization Mass Spectrometry of Proteins and Noncovalent Protein-Ligand Complexes. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 8377-8381.	7.2	45
82	DUV cleaning of aluminium optics left at the atmosphere. <i>Journal of Physics: Conference Series</i> , 2013, 425, 122005.	0.3	1
83	Calibration and quality assurance procedures at the far UV linear and circular dichroism experimental station DISCO. <i>Journal of Physics: Conference Series</i> , 2013, 425, 122014.	0.3	8
84	Characterization of Hydrophobic Peptides in the Presence of Detergent by Photoionization Mass Spectrometry. <i>PLoS ONE</i> , 2013, 8, e79033.	1.1	29
85	Tomographie de fluorescence DUV sur des systèmes d'intérêt biologique. , 2013, , 43-45.	0.1	0
86	DISCO synchrotron-radiation circular-dichroism endstation at SOLEIL. <i>Journal of Synchrotron Radiation</i> , 2012, 19, 831-835.	1.0	49
87	Atmospheric pressure photoionization study of post-translational modifications: The case of palmitoylation. <i>International Journal of Mass Spectrometry</i> , 2012, 328-329, 23-27.	0.7	8
88	Structure and Charge-State Dependence of the Gas-Phase Ionization Energy of Proteins. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 9552-9556.	7.2	34
89	A rhenium tris-carbonyl derivative as a single core multimodal probe for imaging (SCoMPI) combining infrared and luminescent properties. <i>Chemical Communications</i> , 2012, 48, 7729.	2.2	94
90	Fast in vacuo photon shutter for synchrotron radiation quadrupole ion trap tandem mass spectrometry. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012, 279, 34-36.	0.6	13

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91	Atmospheric pressure photoionization using tunable VUV synchrotron radiation. Nuclear Instruments & Methods in Physics Research B, 2012, 279, 114-117.	0.6	14
92	VUV synchrotron radiation: a new activation technique for tandem mass spectrometry. Journal of Synchrotron Radiation, 2012, 19, 174-178.	1.0	65
93	Antibiotic Transport in Resistant Bacteria: Synchrotron UV Fluorescence Microscopy to Determine Antibiotic Accumulation with Single Cell Resolution. PLoS ONE, 2012, 7, e38624.	1.1	63
94	Synchrotron Ultraviolet Microspectroscopy on Rat Cortical Bone: Involvement of Tyrosine and Tryptophan in the Osteocyte and Its Environment. PLoS ONE, 2012, 7, e43930.	1.1	22
95	In Situ Tracking of Enzymatic Breakdown of Starch Granules by Synchrotron UV Fluorescence Microscopy. Analytical Chemistry, 2011, 83, 989-993.	3.2	30
96	Synchrotron UV-Visible Multispectral Luminescence Microimaging of Historical Samples. Analytical Chemistry, 2011, 83, 1737-1745.	3.2	52
97	Photoionization of a protein isolated in vacuo. Physical Chemistry Chemical Physics, 2011, 13, 15432.	1.3	60
98	A differential pumping system to deliver windowless VUV photons at atmospheric pressure. Journal of Synchrotron Radiation, 2011, 18, 546-549.	1.0	22
99	Separation of peptides from detergents using ion mobility spectrometry. Rapid Communications in Mass Spectrometry, 2011, 25, 3436-3440.	0.7	9
100	Diffusion of Ofloxacin in the Endocarditis Vegetation Assessed with Synchrotron Radiation UV Fluorescence Microspectroscopy. PLoS ONE, 2011, 6, e19440.	1.1	11
101	Gas-phase spectroscopy of a protein. Journal of Physics: Conference Series, 2010, 257, 012006.	0.3	6
102	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.	1.7	19
103	Synchrotron UV Fluorescence Microscopy Uncovers New Probes in Cells and Tissues. Microscopy and Microanalysis, 2010, 16, 507-514.	0.2	78
104	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.	3.2	53
105	DISCO: a low-energy multipurpose beamline at synchrotron SOLEIL. Journal of Synchrotron Radiation, 2009, 16, 835-841.	1.0	129
106	Photosensitizer effects on cancerous cells: A combined study using synchrotron infrared and fluorescence microscopies. Biochimica Et Biophysica Acta - General Subjects, 2008, 1780, 854-860.	1.1	23
107	High Level of Low-density Lipoprotein Receptors Enhance Hypericin Uptake by U-87 MG Cells in the Presence of LDL. Photochemistry and Photobiology, 2007, 84, 071018085748002-???.	1.3	42
108	Characterization of the Interaction of Hypericin with Protein Kinase C in U-87 MG Human Glioma Cells. Photochemistry and Photobiology, 2006, 82, 720.	1.3	23

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109	Cycloimide bacteriochlorin p derivatives: Photodynamic properties and cellular and tissue distribution. <i>Free Radical Biology and Medicine</i> , 2006, 40, 407-419.	1.3	26
110	Identification and quantification of hypericin and pseudohypericin in different <i>Hypericum perforatum</i> L. in vitro cultures. <i>Plant Physiology and Biochemistry</i> , 2005, 43, 591-601.	2.8	66
111	Fluorescence Spectroscopic Study of Hypericin-photosensitized Oxidation of Low-density Lipoproteins. <i>Photochemistry and Photobiology</i> , 2005, 81, 1395.	1.3	46
112	New Synchrotron Radiation Circular Dichroism end-station on DISCO beamline at SOLEIL synchrotron for biomolecular analysis. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2005, 1724, 425-431.	1.1	12
113	Single histidine residue in head-group region is sufficient to impart remarkable gene transfection properties to cationic lipids: evidence for histidine-mediated membrane fusion at acidic pH. <i>Gene Therapy</i> , 2003, 10, 1206-1215.	2.3	102
114	Zinc improves gene transfer mediated by DNA/cationic polymer complexes. <i>Journal of Gene Medicine</i> , 2002, 4, 548-559.	1.4	40
115	Study of the structural stability of the mini-hairpin d(GCGAAGC) by hydrogen-deuterium exchange kinetics. <i>Journal of Raman Spectroscopy</i> , 2000, 31, 481-484.	1.2	2
116	Hybridization Kinetics of Oligodeoxyribonucleotides with a d(GCGAAGC) Hairpin at the 3' End. <i>Journal of Biomolecular Structure and Dynamics</i> , 1999, 17, 539-544.	2.0	3
117	Intracellular fate of oligodeoxynucleotides: A microspectro FRET study. <i>Biology of the Cell</i> , 1999, 91, 229-229.	0.7	1
118	Resonance Raman analysis of a fluorescently labeled oligonucleotide forming a very stable hairpin. <i>European Biophysics Journal</i> , 1997, 26, 277-281.	1.2	7
119	Fluorescence Resonance Energy Transfer Analysis of the Degradation of an Oligonucleotide Protected by a Very Stable Hairpin. <i>Journal of Biomolecular Structure and Dynamics</i> , 1996, 14, 365-371.	2.0	9
120	Structural and conformational properties of phosphonylmethyl analogues of diribonucleoside monophosphates studied by Raman spectroscopy. <i>Journal of Molecular Structure</i> , 1995, 348, 45-48.	1.8	10
121	Synchrotron based Fourier-transform infrared microspectroscopy as sensitive technique for the detection of early apoptosis in U-87 MG cells. <i>Laser Physics Letters</i> , 0, 7, 613-620.	0.6	31
122	Preferred metabolic pathway of bovine muscle fibre revealed by synchrotron "deep ultraviolet fluorescence imaging. <i>Journal of Spectral Imaging</i> , 0, , .	0.0	1