

Sylvain Bohic

List of Publications by Year in descending order

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122
papers

3,499
citations

136885

32
h-index

155592

55
g-index

125
all docs

125
docs citations

125
times ranked

4470
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparison of X-ray speckle-based imaging deflection retrieval algorithms for the optimization of radiation dose. <i>Physics in Medicine and Biology</i> , 2021, 66, 065005.	1.6	5
2	Nanosopic X-ray imaging and quantification of the iron cellular architecture within single fibroblasts of Friedreich's ataxia patients. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 185-198.	1.0	5
3	Nano-imaging trace elements at organelle levels in substantia nigra overexpressing α -synuclein to model Parkinson's disease. <i>Communications Biology</i> , 2020, 3, 364.	2.0	9
4	Radiation Dose Enhancement Is a Potent Radiotherapeutic Effect of Rare Earth Composite Nanoscintillators in Preclinical Models of Glioblastoma. <i>Advanced Science</i> , 2020, 7, 2001675.	5.6	36
5	A liver-targeting Cu chelator relocates Cu in hepatocytes and promotes Cu excretion in a murine model of Wilson's disease. <i>Metallomics</i> , 2020, 12, 1000-1008.	1.0	8
6	Identification of distinct pathological signatures induced by patient-derived α -synuclein structures in nonhuman primates. <i>Science Advances</i> , 2020, 6, eaaz9165.	4.7	34
7	Cryo-nanoimaging of Single Human Macrophage Cells: 3D Structural and Chemical Quantification. <i>Analytical Chemistry</i> , 2020, 92, 4814-4819.	3.2	12
8	Selenium nanoparticles trigger alterations in ovarian cancer cell biomechanics. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2020, 29, 102258.	1.7	22
9	Effect of sample preparation techniques upon single cell chemical imaging: A practical comparison between synchrotron radiation based X-ray fluorescence (SR-XRF) and Nanoscopic Secondary Ion Mass Spectrometry (nano-SIMS). <i>Analytica Chimica Acta</i> , 2020, 1106, 22-32.	2.6	15
10	Subcellular Chemical Imaging: New Avenues in Cell Biology. <i>Trends in Cell Biology</i> , 2020, 30, 173-188.	3.6	59
11	X-ray Phase Contrast osteo-articular imaging: a pilot study on cadaveric human hands. <i>Scientific Reports</i> , 2020, 10, 1911.	1.6	10
12	Overcoming the challenges of high-energy X-ray ptychography. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 1751-1762.	1.0	9
13	Crumpling of silver nanowires by endolysosomes strongly reduces toxicity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 14893-14898.	3.3	26
14	Intracellular Localization of an Osmocenyl-Tamoxifen Derivative in Breast Cancer Cells Revealed by Synchrotron Radiation X-ray Fluorescence Nanoimaging. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 3461-3465.	7.2	25
15	Intracellular Localization of an Osmocenyl-Tamoxifen Derivative in Breast Cancer Cells Revealed by Synchrotron Radiation X-ray Fluorescence Nanoimaging. <i>Angewandte Chemie</i> , 2019, 131, 3499-3503.	1.6	11
16	Three-Dimensional Correlative Imaging of a Malaria-Infected Cell with a Hard X-ray Nanoprobe. <i>Analytical Chemistry</i> , 2019, 91, 6549-6554.	3.2	14
17	Sub-ppm level high energy resolution fluorescence detected X-ray absorption spectroscopy of selenium in articular cartilage. <i>Analyst</i> , 2019, 144, 3488-3493.	1.7	20
18	Zinc Uptake and Storage During the Formation of the Cerebral Cortex in Mice. <i>Molecular Neurobiology</i> , 2019, 56, 6928-6940.	1.9	8

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19	Cell Culture on Silicon Nitride Membranes and Cryopreparation for Synchrotron X-ray Fluorescence Nano-analysis. <i>Journal of Visualized Experiments</i> , 2019, , .	0.2	5
20	3D histopathology speckle phase contrast imaging: from synchrotron to conventional sources. , 2019, , .		1
21	Nanoscale quantification of intracellular element concentration by X-ray fluorescence microscopy combined with X-ray phase contrast nanotomography. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	32
22	Nanopositioning for the ESRF ID16A Nano-Imaging Beamline. <i>Synchrotron Radiation News</i> , 2018, 31, 9-14.	0.2	23
23	High Resolution X-Ray Phase Contrast Imaging of Maturing Cartilage.. <i>Microscopy and Microanalysis</i> , 2018, 24, 382-383.	0.2	0
24	Performance of X-Ray Speckle Tracking Phase Retrieval Algorithms Towards a Dose Improvement. <i>Microscopy and Microanalysis</i> , 2018, 24, 38-39.	0.2	1
25	Cellular Fractionation and Nanoscopic X-Ray Fluorescence Imaging Analyses Reveal Changes of Zinc Distribution in Leaf Cells of Iron-Deficient Plants. <i>Frontiers in Plant Science</i> , 2018, 9, 1112.	1.7	29
26	Synchrotron Radiation X-Ray Fluorescence Nanoimaging Reveal the Intracellular Localization of Potent Anticancer Drug Osmocenyl-Tamoxifen Derivative. <i>Microscopy and Microanalysis</i> , 2018, 24, 350-351.	0.2	3
27	Quantitative Nano-imaging of Cells with a High Energy X-ray Cryo Nano-probe. <i>Microscopy and Microanalysis</i> , 2018, 24, 402-403.	0.2	1
28	Nanosopic X-ray fluorescence imaging and quantification of intracellular key-elements in cryofrozen Friedreichâ€™s ataxia fibroblasts. <i>PLoS ONE</i> , 2018, 13, e0190495.	1.1	17
29	Unsupervised solution for in-line holography phase retrieval using Bayesian inference. <i>Optics Express</i> , 2018, 26, 32847.	1.7	3
30	Nanoscale three-dimensional imaging of biological tissue with x-ray holographic tomography. , 2018, , .		0
31	Frontispiece: Synchrotron X-Ray Fluorescence Nanoprobe Reveals Target Sites for Organoâ€™Osmium Complex in Human Ovarian Cancer Cells. <i>Chemistry - A European Journal</i> , 2017, 23, .	1.7	0
32	Zinc and Copper Effects on Stability of Tubulin and Actin Networks in Dendrites and Spines of Hippocampal Neurons. <i>ACS Chemical Neuroscience</i> , 2017, 8, 1490-1499.	1.7	33
33	Synchrotron X-Ray Fluorescence Nanoprobe Reveals Target Sites for Organoâ€™Osmium Complex in Human Ovarian Cancer Cells. <i>Chemistry - A European Journal</i> , 2017, 23, 2512-2516.	1.7	67
34	Combined use of X-ray fluorescence microscopy, phase contrast imaging for high resolution quantitative iron mapping in inflamed cells. <i>Journal of Physics: Conference Series</i> , 2017, 849, 012008.	0.3	1
35	Efficient concentration of high-energy x-rays for diffraction-limited imaging resolution. <i>Optica</i> , 2017, 4, 492.	4.8	145
36	High-energy cryo x-ray nano-imaging at the ID16A beamline of ESRF. , 2017, , .		5

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37	ID16B: a hard X-ray nanoprobe beamline at the ESRF for nano-analysis. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 344-352.	1.0	176
38	Î±-Synuclein Over-Expression Induces Increased Iron Accumulation and Redistribution in Iron-Exposed Neurons. <i>Molecular Neurobiology</i> , 2016, 53, 1925-1934.	1.9	60
39	Comparative Study of Metal Quantification in Neurological Tissue Using Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry Imaging and X-ray Fluorescence Microscopy. <i>Analytical Chemistry</i> , 2015, 87, 6639-6645.	3.2	39
40	Impact of manganese on the hippocampus metabolism in the context of MEMRI: a proton HRMAS MRS study. <i>Toxicology Research</i> , 2015, 4, 376-384.	0.9	6
41	In vivo siRNA distribution and pharmacokinetics assessed by nuclear imaging are modulated according to radiolabelling site. <i>Nuclear Medicine and Biology</i> , 2015, 42, 958-966.	0.3	3
42	Manganese Cytotoxicity Assay on Hippocampal Neuronal Cell Culture. <i>Bio-protocol</i> , 2015, 5, .	0.2	0
43	Role of the selenium in articular cartilage metabolism, growth, and maturation. , 2015, , 77-78.		0
44	Copper pathology in vulnerable brain regions in Parkinson's disease. <i>Neurobiology of Aging</i> , 2014, 35, 858-866.	1.5	188
45	Impact of manganese on primary hippocampal neurons from rodents. <i>Hippocampus</i> , 2014, 24, 598-610.	0.9	17
46	Determination of elemental distribution in green micro-algae using synchrotron radiation nano X-ray fluorescence (SR-nXRF) and electron microscopy techniques " subcellular localization and quantitative imaging of silver and cobalt uptake by <i>Coccomyxa actinabiotis</i> . <i>Metallomics</i> , 2014, 6, 316.	1.0	46
47	Neuronal transport defects of the MAP6 KO mouse " a model of schizophrenia " and alleviation by Epothilone D treatment, as observed using MEMRI. <i>NeuroImage</i> , 2014, 96, 133-142.	2.1	33
48	Thlaspi arvense binds Cu(ii) as a bis-(l-histidinato) complex on root cell walls in an urban ecosystem. <i>Metallomics</i> , 2013, 5, 1674.	1.0	17
49	Manganese enhanced MRI in rat hippocampus: A correlative study with synchrotron X-ray microprobe. <i>NeuroImage</i> , 2013, 64, 10-18.	2.1	21
50	Absolute zinc quantification at the sub-cellular level by combined use of hard X-ray fluorescence and phase contrast imaging techniques. <i>Journal of Physics: Conference Series</i> , 2013, 463, 012021.	0.3	6
51	Study of radiation effects on the cell structure and evaluation of the dose delivered by x-ray and Î±-particles microscopy. <i>Applied Physics Letters</i> , 2012, 101, 263102.	1.5	27
52	In situ nanochemical imaging of label-free drugs: a case study of antimalarials in <i>Plasmodium falciparum</i> -infected erythrocytes. <i>Chemical Communications</i> , 2012, 48, 910-912.	2.2	39
53	Deciphering the Resistance-Counteracting Functions of Ferroquine in <i>Plasmodium falciparum</i> -Infected Erythrocytes. <i>ACS Medicinal Chemistry Letters</i> , 2012, 3, 480-483.	1.3	24
54	Combined use of hard X-ray phase contrast imaging and X-ray fluorescence microscopy for sub-cellular metal quantification. <i>Journal of Structural Biology</i> , 2012, 177, 239-247.	1.3	95

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55	Biomedical applications of the ESRF synchrotron-based microspectroscopy platform. <i>Journal of Structural Biology</i> , 2012, 177, 248-258.	1.3	80
56	Status of the hard X-ray microprobe beamline ID22 of the European Synchrotron Radiation Facility. <i>Journal of Synchrotron Radiation</i> , 2012, 19, 10-18.	1.0	95
57	Spatially resolved imaging methods to probe metals in the brain: from subcellular to organ level. , 2012, , 211-222.		1
58	Parabolic crossed planar polymeric x-ray lenses. <i>Journal of Micromechanics and Microengineering</i> , 2011, 21, 015020.	1.5	23
59	The over-expression of TRPC6 channels in HEK-293 cells favours the intracellular accumulation of zinc. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2011, 1808, 2807-2818.	1.4	48
60	Intracellular synchrotron nanoimaging and DNA damage/genotoxicity screening of novel lanthanide-coated nanovectors. <i>Nanomedicine</i> , 2010, 5, 1547-1557.	1.7	35
61	Manganese Accumulates within Golgi Apparatus in Dopaminergic Cells as Revealed by Synchrotron X-ray Fluorescence Nanoimaging. <i>ACS Chemical Neuroscience</i> , 2010, 1, 194-203.	1.7	78
62	The in vivo degradation of a ruthenium labelled polysaccharide-based hydrogel for bone tissue engineering. <i>Biomaterials</i> , 2009, 30, 1568-1577.	5.7	39
63	Synchrotron-based X-ray fluorescence imaging of human cells labeled with CdSe quantum dots. <i>Analytical Biochemistry</i> , 2009, 388, 33-39.	1.1	73
64	Leukemia Inhibitory Factor and Oncostatin M Influence the Mineral Phases Formed in a Murine Heterotopic Calcification Model: A Fourier Transform-Infrared Microspectroscopic Study. <i>Journal of Bone and Mineral Research</i> , 2009, 13, 1619-1632.	3.1	12
65	P3.052 Metallomics of neuromelanin in Parkinsonian syndromes. <i>Parkinsonism and Related Disorders</i> , 2009, 15, S161-S162.	1.1	2
66	Fluorescence X-ray micro-spectroscopy activities at ESRF. <i>Journal of Physics: Conference Series</i> , 2009, 186, 012014.	0.3	3
67	C-10 Synchrotron Based Spectro-Microscopy for Cell Biology. <i>Powder Diffraction</i> , 2009, 24, 166-166.	0.4	0
68	F-59 X-ray Imaging on Biological Model Organisms Using Micro and Nano X-ray Fluorescence. <i>Powder Diffraction</i> , 2009, 24, 167-167.	0.4	0
69	Study of Cu chemical state inside single neurons from Parkinson's disease and control substantia nigra using the micro-XANES technique. <i>Journal of Trace Elements in Medicine and Biology</i> , 2008, 22, 183-188.	1.5	20
70	Intracellular Chemical Imaging of the Developmental Phases of Human Neuromelanin Using Synchrotron X-ray Microspectroscopy. <i>Analytical Chemistry</i> , 2008, 80, 9557-9566.	3.2	100
71	Nano-imaging of trace metals by synchrotron X-ray fluorescence into dopaminergic single cells and neurite-like processes. <i>Journal of Analytical Atomic Spectrometry</i> , 2008, 23, 1083.	1.6	64
72	State of the Art and Perspectives of Biomedical Imaging at the ESRF. <i>Synchrotron Radiation News</i> , 2008, 21, 30-41.	0.2	7

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73	F-39 A Top-Down Approach Using X-ray Imaging Techniques: Instrumental Developments and Applications in Life Science. Powder Diffraction, 2008, 23, 177-177.	0.4	0
74	Nanofocusing at ESRF Using Graded Multilayer Mirrors. AIP Conference Proceedings, 2007, , .	0.3	21
75	Uremia-related vascular calcification: More than apatite deposition. Kidney International, 2007, 71, 298-303.	2.6	78
76	Hard X-ray Microscopy and Tomography. Microscopy and Microanalysis, 2007, 13, .	0.2	0
77	Subcellular Speciation Analysis of Trace Element Oxidation States Using Synchrotron Radiation Micro-X-ray Absorption Near-Edge Structure. Analytical Chemistry, 2007, 79, 7353-7359.	3.2	72
78	Iron Storage within Dopamine Neurovesicles Revealed by Chemical Nano-Imaging. PLoS ONE, 2007, 2, e925.	1.1	159
79	Strontium incorporates at sites critical for bone mineralization in rats with renal failure. X-Ray Spectrometry, 2007, 36, 42-49.	0.9	8
80	Transport kinetics of four- and six-coordinate platinum compounds in the multicell layer tumour model. British Journal of Cancer, 2007, 97, 194-200.	2.9	31
81	Kirkpatrick-Baez mirrors used in high resolution X-ray microscopy, tomography and fluorescence analysis. Acta Crystallographica Section A: Foundations and Advances, 2006, 62, s93-s93.	0.3	0
82	Implementation of X-ray Fluorescence Microscopy for Investigation of Elemental Abnormalities in Amyotrophic Lateral Sclerosis. Neurochemical Research, 2006, 31, 321-331.	1.6	31
83	Methodological Study Using XAS of an ArsenicBased Antileukemia Treatment. Physica Scripta, 2005, , 870.	1.2	3
84	Nuclear microprobe determination of platinum quantitative distribution in rat brain tumors after cisplatin or carboplatin injection for PAT treatment of glioma. Nuclear Instruments & Methods in Physics Research B, 2005, 231, 321-325.	0.6	10
85	ID22: a multitechnique hard X-ray microprobe beamline at the European Synchrotron Radiation Facility. Journal of Synchrotron Radiation, 2005, 12, 208-215.	1.0	44
86	Intraneuronal investigations of organic components and trace elements with the use of synchrotron radiation. X-Ray Spectrometry, 2005, 34, 514-520.	0.9	25
87	Synchrotron X-Ray Microfluorescence and Microspectroscopy: Application and Perspectives in Materials Science. Oil and Gas Science and Technology, 2005, 60, 979-993.	1.4	4
88	Elemental mapping in slices of human brain by SR- μ XRF. Powder Diffraction, 2005, 20, 158-160.	0.4	10
89	Classification of Nerve Cells from Substantia Nigra of Patients with Parkinson's Disease and Amyotrophic Lateral Sclerosis with the Use of X-ray Fluorescence Microscopy and Multivariate Methods. Analytical Chemistry, 2005, 77, 2895-2900.	3.2	19
90	The X-Ray Microscopy And Micro-Spectroscopy Facility At The ESRF. AIP Conference Proceedings, 2004, , .	0.3	1

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91	Research in quantitative microscopic X-ray fluorescence analysis. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2004, 59, 1517-1521.	1.5	16
92	Topographic and quantitative microanalysis of human central nervous system tissue using synchrotron radiation. <i>X-Ray Spectrometry</i> , 2004, 33, 3-11.	0.9	33
93	Focusing X-rays with simple arrays of prism-like structures. <i>Journal of Synchrotron Radiation</i> , 2004, 11, 248-253.	1.0	39
94	Cure of Fisher Rats Bearing Radioresistant F98 Glioma Treated with cis-Platinum and Irradiated with Monochromatic Synchrotron X-Rays. <i>Cancer Research</i> , 2004, 64, 2317-2323.	0.4	153
95	Microchemical Element Imaging of Yeast and Human Cells Using Synchrotron X-ray Microprobe with Kirkpatrick-Baez Optics. <i>Analytical Chemistry</i> , 2004, 76, 309-314.	3.2	46
96	Focusing hard x-rays with large kinoform lenses of mm size. , 2004, , .		0
97	Determination of trace elements in Parkinson's diseased brain tissue using microbeam of synchrotron radiation. <i>Journal of Neurochemistry</i> , 2003, 85, 23-23.	2.1	10
98	Alteration of zinc accumulation in ageing and neurodegenerative disorders. <i>Journal of Neurochemistry</i> , 2003, 85, 27-27.	2.1	1
99	The X-ray Microscopy and Microspectroscopy facility at the ESRF. <i>Synchrotron Radiation News</i> , 2003, 16, 35-43.	0.2	6
100	Dissolution of strontianite at high P-T conditions: An in-situ synchrotron X-ray fluorescence study. <i>American Mineralogist</i> , 2003, 88, 978-985.	0.9	45
101	Application of synchrotron radiation for elemental microanalysis of human central nervous System tissue. <i>European Physical Journal Special Topics</i> , 2003, 104, 325-328.	0.2	5
102	Analysis of a Roman Centaurus from Canas de Senhorim (Portugal)-Comparative study using EDXRF and SXRF. <i>European Physical Journal Special Topics</i> , 2003, 104, 523-526.	0.2	7
103	Imaging and quantification of trace metals in thin biological specimens using microprobe techniques: Synchrotron induced X-ray fluorescence microprobe and nuclear microprobe. <i>European Physical Journal Special Topics</i> , 2003, 104, 321-324.	0.2	7
104	Trace element content and distribution in a single fluid inclusion from Dunbar Oil Field, North Sea. <i>European Physical Journal Special Topics</i> , 2003, 104, 385-390.	0.2	3
105	Lack of Cell Death Enhancement after Irradiation with Monochromatic Synchrotron X Rays at the K-Shell Edge of Platinum Incorporated in Living SQ20B Human Cells ascis-Diamminedichloroplatinum (II). <i>Radiation Research</i> , 2002, 158, 763-770.	0.7	31
106	Light scattering experiments on aqueous solutions of selected cellulose ethers: contribution to the study of polymer-mineral interactions in a new injectable biomaterial. <i>Journal of Materials Science: Materials in Medicine</i> , 2001, 12, 201-205.	1.7	12
107	Iron distribution in cancer cells following doxorubicin exposure using proton and X-ray synchrotron radiation microprobes. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2001, 181, 480-484.	0.6	13
108	X-ray fluorescence micro-tomography of an individual fluid inclusion using a third generation synchrotron light source. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2001, 181, 749-754.	0.6	12

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109	Synchrotron-induced X-ray microfluorescence on single cells. Nuclear Instruments & Methods in Physics Research B, 2001, 181, 728-733.	0.6	19
110	<title>Microbeam production using compound refractive lenses: beam characterization and applications</title>. , 2001, , .		6
111	Synchrotron hard x-ray microprobe: Fluorescence imaging of single cells. Applied Physics Letters, 2001, 78, 3544-3546.	1.5	85
112	Ultrastructural Properties of Bone Mineral of Control and Tiludronate-Treated Osteoporotic Rat. Calcified Tissue International, 2000, 67, 330-336.	1.5	24
113	Characterization of the trabecular rat bone mineral: effect of ovariectomy and bisphosphonate treatment. Bone, 2000, 26, 341-348.	1.4	74
114	Effects of fibronectin on hydroxyapatite formation. Journal of Inorganic Biochemistry, 1999, 73, 129-136.	1.5	37
115	Potential use of infrared microspectroscopy to study drug-related structural changes in bone. Drug Discovery Today, 1999, 4, 443-444.	3.2	1
116	Biological activities of sustained polymyxin B release from calcium phosphate biomaterial prepared by dynamic compaction: An in vitro study. , 1999, 47, 18-27.		40
117	Application of FT-IR microspectroscopy to the study of an injectable composite for bone and dental surgery. , 1998, 41, 167-170.		28
118	Molecular weight determination of macromolecules with a new simplified and coherent light scattering method. Journal of Molecular Structure, 1998, 443, 233-253.	1.8	8
119	Transmission FT-IR microspectroscopy of mineral phases in calcified tissues. Comptes Rendus De L'Académie Des Sciences Série 3, Sciences De La Vie, 1998, 321, 865-876.	0.8	21
120	Heterotopic Implantation of Mouse Bone-Marrow Cells: An <i>In Vivo</i> Model Allowing Analysis of Mineral Phases During Mineralization Processes. Connective Tissue Research, 1998, 37, 219-231.	1.1	6
121	Effects of Leukemia Inhibitory Factor and Oncostatin M on Bone Mineral Formed in <i>In Vitro</i> Rat Bone-Marrow Stromal Cell Culture: Physicochemical Aspects. Biochemical and Biophysical Research Communications, 1998, 253, 506-513.	1.0	11
122	X-Ray Phase Contrast Osteo-Articular Imaging: A Pilot Study on Cadaveric Human Hands. SSRN Electronic Journal, 0, , .	0.4	0