

Julie Villanova

List of Publications by Year in descending order

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59
papers

1,710
citations

279798

23
h-index

289244

40
g-index

64
all docs

64
docs citations

64
times ranked

2862
citing authors

#	ARTICLE	IF	CITATIONS
1	ID16B: a hard X-ray nanoprobe beamline at the ESRF for nano-analysis. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 344-352.	2.4	176
2	Fate of Ag-NPs in Sewage Sludge after Application on Agricultural Soils. <i>Environmental Science & Technology</i> , 2016, 50, 1759-1768.	10.0	151
3	Coherently aligned nanoparticles within a biogenic single crystal: A biological prestressing strategy. <i>Science</i> , 2017, 358, 1294-1298.	12.6	97
4	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.	2.4	95
5	Fast in situ 3D nanoimaging: a new tool for dynamic characterization in materials science. <i>Materials Today</i> , 2017, 20, 354-359.	14.2	86
6	Synchrotron-based $\hat{1}/2$ -XRF mapping and $\hat{1}/4$ -FTIR microscopy enable to look into the fate and effects of tattoo pigments in human skin. <i>Scientific Reports</i> , 2017, 7, 11395.	3.3	83
7	3D phase mapping of solid oxide fuel cell YSZ/Ni cermet at the nanoscale by holographic X-ray nanotomography. <i>Journal of Power Sources</i> , 2013, 243, 841-849.	7.8	68
8	Visualization, quantification and coordination of Ag ⁺ ions released from silver nanoparticles in hepatocytes. <i>Nanoscale</i> , 2016, 8, 17012-17021.	5.6	68
9	Degradation study by 3D reconstruction of a nickel- \hat{y} tria stabilized zirconia cathode after high temperature steam electrolysis operation. <i>Journal of Power Sources</i> , 2014, 269, 927-936.	7.8	62
10	Dynamics of the Morphological Degradation of Si \hat{e} -Based Anodes for Li \hat{e} -ion Batteries Characterized by In Situ Synchrotron X \hat{e} -Ray Tomography. <i>Advanced Energy Materials</i> , 2019, 9, 1803947.	19.5	59
11	Quantitative microstructure characterization of a Ni \hat{e} -YSZ bi-layer coupled with simulated electrode polarisation. <i>Journal of Power Sources</i> , 2014, 256, 394-403.	7.8	48
12	Distribution of nickel and chromium containing particles from tattoo needle wear in humans and its possible impact on allergic reactions. <i>Particle and Fibre Toxicology</i> , 2019, 16, 33.	6.2	48
13	Innovative combination of spectroscopic techniques to reveal nanoparticle fate in a crop plant. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2016, 119, 17-24.	2.9	43
14	Thermo-elastic properties of SOFC/SOEC electrode materials determined from three-dimensional microstructural reconstructions. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 12379-12391.	7.1	41
15	Determination of global and local residual stresses in SOFC by X-ray diffraction. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2010, 268, 282-286.	1.4	36
16	From spinodal decomposition to alternating layered structure within single crystals of biogenic magnesium calcite. <i>Nature Communications</i> , 2019, 10, 4559.	12.8	36
17	X-ray nanotomography using near-field ptychography. <i>Optics Express</i> , 2015, 23, 12720.	3.4	34
18	3D Quantification of Microstructural Properties of Li \hat{e} _{0.5} Mn \hat{e} _{0.3} Co \hat{e} _{0.2} O \hat{e} ₂ High \hat{e} -Energy Density Electrodes by X \hat{e} -Ray Holographic Nano \hat{e} -Tomography. <i>Advanced Energy Materials</i> , 2021, 11, 2003529.	19.5	34

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19	Multi-scale 3D imaging of absorbing porous materials for solid oxide fuel cells. <i>Journal of Materials Science</i> , 2014, 49, 5626-5634.	3.7	28
20	Liquid-liquid phase separation morphologies in ultra-white beetle scales and a synthetic equivalent. <i>Communications Chemistry</i> , 2019, 2, .	4.5	28
21	Three-dimensional textural and quantitative analyses of orogenic gold at the nanoscale. <i>Geology</i> , 2016, 44, 739-742.	4.4	27
22	In situ nanotomography study of creep cavities in Al-3.6-Cu alloy. <i>Acta Materialia</i> , 2019, 166, 18-27.	7.9	27
23	Nanosopic tumor tissue distribution of platinum after intraperitoneal administration in a xenograft model of ovarian cancer. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2016, 131, 256-262.	2.8	26
24	Anisotropic sintering behavior of freeze-cast ceramics by optical dilatometry and discrete-element simulations. <i>Acta Materialia</i> , 2018, 155, 343-349.	7.9	24
25	<i>Medicago truncatula</i> Ferroportin2 mediates iron import into nodule symbiosomes. <i>New Phytologist</i> , 2020, 228, 194-209.	7.3	23
26	Strength of hierarchically porous ceramics: Discrete simulations on X-ray nanotomography images. <i>Scripta Materialia</i> , 2016, 113, 250-253.	5.2	20
27	Monitoring the morphological changes of Si-based electrodes by X-ray computed tomography: A 4D-multiscale approach. <i>Nano Energy</i> , 2020, 74, 104848.	16.0	20
28	Assessing implications of nanoplastics exposure to plants with advanced nanometrology techniques. <i>Journal of Hazardous Materials</i> , 2022, 430, 128356.	12.4	20
29	Degradation Study of the $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3}$ Solid Oxide Electrolysis Cell (SOEC) Anode after High Temperature Electrolysis Operation. <i>ECS Transactions</i> , 2013, 57, 3177-3187.	0.5	15
30	X-ray micro Laue diffraction tomography analysis of a solid oxide fuel cell. <i>Journal of Applied Crystallography</i> , 2015, 48, 357-364.	4.5	14
31	Assessment of Ovarian Cancer Tumors Treated with Intraperitoneal Cisplatin Therapy by Nanoscopic X-ray Fluorescence Imaging. <i>Scientific Reports</i> , 2016, 6, 29999.	3.3	14
32	Synchrotron X-ray imaging applied to solar photovoltaic silicon. <i>Journal of Physics: Conference Series</i> , 2013, 425, 192019.	0.4	13
33	X-ray fluorescence nano-imaging of long-term operated solid oxide electrolysis cells. <i>Journal of Power Sources</i> , 2019, 421, 100-108.	7.8	13
34	3D visualisation of hepatitis B vaccine in the oral delivery vehicle SBA-15. <i>Scientific Reports</i> , 2019, 9, 6106.	3.3	13
35	Three dimensional analysis of $\text{Ce}_{0.9}\text{Gd}_{0.1}\text{O}_{1.95}$ $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3}$ oxygen electrode for solid oxide cells. <i>Journal of the European Ceramic Society</i> , 2015, 35, 4497-4505.	5.7	12
36	Synchrotron microanalysis techniques applied to potential photovoltaic materials. <i>Journal of Synchrotron Radiation</i> , 2012, 19, 521-524.	2.4	11

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37	Helical Microstructures of the Mineralized Coralline Red Algae Determine Their Mechanical Properties. <i>Advanced Science</i> , 2020, 7, 2000108.	11.2	11
38	Boosting spatial resolution by incorporating periodic boundary conditions into single-distance hard-x-ray phase retrieval. <i>Journal of Optics (United Kingdom)</i> , 2020, 22, 115607.	2.2	10
39	Multiscale measurements of residual strains in a stabilized zirconia layer. <i>Journal of Applied Crystallography</i> , 2012, 45, 926-935.	4.5	8
40	Evaluation of imaging setups for quantitative phase contrast nanoCT of mineralized biomaterials. <i>Journal of Synchrotron Radiation</i> , 2022, 29, 843-852.	2.4	8
41	In situ investigation of atmospheric plasma-sprayed Mn-Co-Fe-O by synchrotron X-ray nano-tomography. <i>Journal of Materials Science</i> , 2020, 55, 12725-12736.	3.7	7
42	Structural and chemical variations in Mg-calcite skeletal segments of coralline red algae lead to improved crack resistance. <i>Acta Biomaterialia</i> , 2021, 130, 362-373.	8.3	6
43	A helium mini-cryostat for the nanoprobe beamline ID16B at ESRF: characteristics and performance. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 1074-1079.	2.4	6
44	X-Ray Diffraction Determination of Macro and Micro Stresses in SOFC Electrolyte and Evolution with Redox Cycling of the Anode. <i>Materials Science Forum</i> , 2011, 681, 25-30.	0.3	4
45	Highly resolved synchrotron-based investigations related to nuclear waste disposal. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1444, 269.	0.1	4
46	X-ray nano-tomography of complete scales from the ultra-white beetles <i>Lepidiota stigma</i> and <i>Cyphochilus</i> . <i>Scientific Data</i> , 2020, 7, 163.	5.3	4
47	Impact of the growth strategy and device fabrication on the alloy homogeneity in optoelectronic grade Sn-rich GeSn. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021, 264, 114899.	3.5	4
48	Fast In Situ Nanotomography at ESRF. <i>Microscopy and Microanalysis</i> , 2018, 24, 450-451.	0.4	3
49	Energy and Environmental Science at ESRF. <i>Synchrotron Radiation News</i> , 2020, 33, 40-51.	0.8	3
50	Detection and Characterization of TiO ₂ Nanomaterials in Sludge from Wastewater Treatment Plants of Chihuahua State, Mexico. <i>Nanomaterials</i> , 2022, 12, 744.	4.1	3
51	High Resolution 3D and 4D Characterization of Microstructure Formation in Novel Ti Alloys for Additive Manufacturing. <i>Microscopy and Microanalysis</i> , 2019, 25, 384-385.	0.4	2
52	Analysis of diatoms by holotomography. <i>Surfaces and Interfaces</i> , 2019, 17, 100358.	3.0	2
53	Coupling in-situ X-ray micro- and nano-tomography and discrete element method for investigating high temperature sintering of metal and ceramic powders. <i>EPJ Web of Conferences</i> , 2017, 140, 13006.	0.3	1
54	Localization, Characterization and Local Biokinetics of Tattoo Pigment Particles in Human Skin and Lymph Nodes by Means of Synchrotron-based Micro- and NanoXRF. <i>Microscopy and Microanalysis</i> , 2018, 24, 404-405.	0.4	0

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55	4D Nano-Tomography for Fundamental Studies in Solidification of Aluminium-Based Alloys. Transactions of the Indian Institute of Metals, 2018, 71, 2765-2769.	1.5	0
56	Structural and Chemical Variations in the Skeletal Segments of Coralline Red Algae Lead to Improved Crack Resistance. SSRN Electronic Journal, 0, , .	0.4	0
57	X-Ray Tomography and Small-Angle Neutron Scattering Characterization of Nano-Composites: Static and In Situ Experiments. , 2014, , 1389-1393.		0
58	ID16B Beamline at the ESRF: a Nanoprobe for the Characterization of Nanomaterials and Nanodevices. , 0, , .		0
59	Fabric Investigation of Natural Sensitive Clay from 3D Nano- and Microtomography Data. Journal of Engineering Mechanics - ASCE, 2022, 148, .	2.9	0