

Nathalie Limodin

List of Publications by Year in descending order

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40
papers

1,395
citations

394421

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361022

35
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41
docs citations

41
times ranked

1131
citing authors

#	ARTICLE	IF	CITATIONS
1	In situ and real-time 3-D microtomography investigation of dendritic solidification in an Al–10 wt.% Cu alloy. <i>Acta Materialia</i> , 2009, 57, 2300-2310.	7.9	169
2	Three dimensional experimental and numerical multiscale analysis of a fatigue crack. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 1307-1325.	6.6	132
3	Crack closure and stress intensity factor measurements in nodular graphite cast iron using three-dimensional correlation of laboratory X-ray microtomography images. <i>Acta Materialia</i> , 2009, 57, 4090-4101.	7.9	109
4	In situ investigation by X-ray tomography of the overall and local microstructural changes occurring during partial remelting of an Al–15.8wt.% Cu alloy. <i>Acta Materialia</i> , 2007, 55, 3177-3191.	7.9	103
5	3D imaging in material science: Application of X-ray tomography. <i>Comptes Rendus Physique</i> , 2010, 11, 641-649.	0.9	103
6	Influence of closure on the 3D propagation of fatigue cracks in a nodular cast iron investigated by X-ray tomography and 3D volume correlation. <i>Acta Materialia</i> , 2010, 58, 2957-2967.	7.9	70
7	In situ 3D characterization of high temperature fatigue damage mechanisms in a cast aluminum alloy using synchrotron X-ray tomography. <i>Scripta Materialia</i> , 2016, 113, 254-258.	5.2	68
8	Analysis and Artifact Correction for Volume Correlation Measurements Using Tomographic Images from a Laboratory X-ray Source. <i>Experimental Mechanics</i> , 2011, 51, 959-970.	2.0	66
9	Influence of pores on crack initiation in monotonic tensile and cyclic loadings in lost foam casting A319 alloy by using 3D in-situ analysis. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 673, 362-372.	5.6	63
10	Digital volume correlation analyses of synchrotron tomographic images. <i>Journal of Strain Analysis for Engineering Design</i> , 2011, 46, 683-695.	1.8	48
11	Fatigue strength improvement of a 4140 steel by gas nitriding: Influence of notch severity. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 435-436, 460-467.	5.6	47
12	Damage Investigation in A319 Aluminium Alloy by X-ray Tomography and Digital Volume Correlation during <i>In Situ</i> High Temperature Fatigue Tests. <i>Strain</i> , 2016, 52, 324-335.	2.4	38
13	Fatigue notch factor and short crack propagation. <i>Engineering Fracture Mechanics</i> , 2008, 75, 1320-1335.	4.3	36
14	Influence of Fe content on the damage mechanism in A319 aluminum alloy: Tensile tests and digital image correlation. <i>Engineering Fracture Mechanics</i> , 2017, 183, 94-108.	4.3	36
15	Application of X-ray microtomography to study the influence of the casting microstructure upon the tensile behaviour of an Al–Si alloy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014, 324, 57-62.	1.4	35
16	Influence of Sr, Fe and Mn content and casting process on the microstructures and mechanical properties of AlSi7Cu3 alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 689, 286-297.	5.6	32
17	Three-dimensional Analysis of Fatigue Crack Propagation using X-Ray Tomography, Digital Volume Correlation and Extended Finite Element Simulations. <i>Procedia IUTAM</i> , 2012, 4, 151-158.	1.2	29
18	Axial fatigue of a gas-nitrided quenched and tempered AISI 4140 steel: effect of nitriding depth. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2003, 26, 811-820.	3.4	25

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19	Fatigue crack growth in compacted and spheroidal graphite cast irons. International Journal of Fatigue, 2020, 131, 105319.	5.7	23
20	Fatigue crack growth law identification by Digital Image Correlation and electrical potential method for ductile cast iron. Engineering Fracture Mechanics, 2017, 182, 577-594.	4.3	20
21	Plastic zone evolution during fatigue crack growth: Digital image correlation coupled with finite elements method. International Journal of Solids and Structures, 2019, 171, 92-102.	2.7	20
22	Three-Dimensional Investigation of Free-Edge Effects in Laminate Composites Using X-ray Tomography and Digital Volume Correlation. Experimental Mechanics, 2015, 55, 301-311.	2.0	19
23	In-situ 3D characterization of tensile damage mechanisms in A319 aluminium alloy using X-ray tomography and digital volume correlation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 794, 139920.	5.6	19
24	3D X-ray Microtomography Volume Correlation to Study Fatigue Crack Growth. Advanced Engineering Materials, 2011, 13, 186-193.	3.5	15
25	Assessment by microtomography of 2D image analysis methods for the measurement of average grain coordination and size in an aggregate. Scripta Materialia, 2009, 60, 325-328.	5.2	10
26	Damage investigation in A319 aluminum alloy by digital image correlation during in-situ tensile tests. Procedia Structural Integrity, 2016, 2, 3415-3422.	0.8	10
27	Application of Synchrotron Radiation Computed Tomography In-Situ Observations and Digital Volume Correlation to Study Low-Cycle Fatigue Damage Micromechanisms in Lost Foam Casting A319 Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 3843-3857.	2.2	9
28	Effects of duration of solution heat treatment on the evolution of 3D microstructure in AlSi7Cu3 alloy: A quantitative X-ray tomography study. Materials Characterization, 2021, 173, 110919.	4.4	9
29	Coupling of X-ray computed tomography and surface in situ analysis combined with digital image correlation method to study low cycle fatigue damage micromechanisms in lost foam casting A319 alloy. Fatigue and Fracture of Engineering Materials and Structures, 2021, 44, 916-932.	3.4	7
30	Experimental investigation of early strain heterogeneities and localizations in polycrystalline ϵ -Fe during monotonic loading. International Journal of Plasticity, 2022, 153, 103253.	8.8	7
31	Influence of the Casting Process in High Temperature Fatigue of A319 Aluminium Alloy Investigated By In-Situ X-Ray Tomography and Digital Volume Correlation. Procedia Structural Integrity, 2016, 2, 3057-3064.	0.8	6
32	Capillary equilibrium in a semi-solid Al-Cu slurry. International Journal of Materials Research, 2010, 101, 265-270.	0.3	5
33	X-Ray Microtomography Investigation of the Effect of Ba Additions on the Microstructure of Partially Remelted Al-4%Cu Alloys. Solid State Phenomena, 2008, 141-143, 475-480.	0.3	2
34	Multi-partner benchmark experiment of fatigue crack growth measurements. Engineering Fracture Mechanics, 2020, 235, 107157.	4.3	2
35	CristalX: Facilitating simulations for experimentally obtained grain-based microstructures. SoftwareX, 2021, 14, 100669.	2.6	1
36	Influence of the Casting Microstructure upon the Tensile Behaviour in A319 Al-Si Alloy Investigated by X-Ray Tomography and Digital Volume Correlation. , 2014, , 73-78.		1

#	ARTICLE	IF	CITATIONS
37	Effect of Fe and Mn Content on the Microstructures and Tensile Behaviour of AlSi7Cu3 Alloy: Thermal Analysis and Tensile Tests. Metals and Materials International, 0, , 1.	3.4	1
38	Coupling of experimental measurements to study the influence of microscopic defects on the fatigue damage in A319 Al-Si alloy. MATEC Web of Conferences, 2014, 12, 04012.	0.2	0
39	« Radioscopie » d'une fissure de fatigue. Instrumentation Mesure Metrologie, 2012, 12, 131-152.	0.3	0
40	Influence of the Lost Foam Casting Microstructure on Low Cycle Fatigue Damage of A319 Aluminum Alloy. , 2014, , 97-102.		0