

Ãric Maire

List of Publications by Year in descending order

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294
papers

14,305
citations

22132

59
h-index

26591

107
g-index

297
all docs

297
docs citations

297
times ranked

10446
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative X-ray tomography. International Materials Reviews, 2014, 59, 1-43.	9.4	975
2	Strong, tough and stiff bioinspired ceramics from brittle constituents. Nature Materials, 2014, 13, 508-514.	13.3	716
3	X-ray micro-tomography an attractive characterisation technique in materials science. Nuclear Instruments & Methods in Physics Research B, 2003, 200, 273-286.	0.6	390
4	In Situ Experiments with X ray Tomography: an Attractive Tool for Experimental Mechanics. Experimental Mechanics, 2010, 50, 289-305.	1.1	383
5	X-ray computed tomography. Nature Reviews Methods Primers, 2021, 1, .	11.8	305
6	Experimental study of porosity and its relation to fatigue mechanisms of model Al-Si-Mg0.3 cast Al alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 316, 115-126.	2.6	290
7	Finite element modelling of the actual structure of cellular materials determined by X-ray tomography. Acta Materialia, 2005, 53, 719-730.	3.8	282
8	Characterization of internal damage in a MMCp using X-ray synchrotron phase contrast microtomography. Acta Materialia, 1999, 47, 1613-1625.	3.8	261
9	On the Application of X-ray Microtomography in the Field of Materials Science. Advanced Engineering Materials, 2001, 3, 539.	1.6	254
10	Initiation and growth of damage in a dual-phase steel observed by X-ray microtomography. Acta Materialia, 2008, 56, 4954-4964.	3.8	244
11	Metastable and unstable cellular solidification of colloidal suspensions. Nature Materials, 2009, 8, 966-972.	13.3	201
12	X-ray tomography applied to the characterization of cellular materials. Related finite element modeling problems. Composites Science and Technology, 2003, 63, 2431-2443.	3.8	198
13	A 3D measurement procedure for internal local crack driving forces via synchrotron X-ray microtomography. Acta Materialia, 2004, 52, 1305-1317.	3.8	195
14	Nanoscale zoom tomography with hard x rays using Kirkpatrick-Baez optics. Applied Physics Letters, 2007, 90, 144104.	1.5	187
15	Advances in synchrotron radiation microtomography. Scripta Materialia, 2006, 55, 41-46.	2.6	166
16	Characterization by X-ray computed tomography of decohesion, porosity growth and coalescence in model metal matrix composites. Acta Materialia, 2001, 49, 2055-2063.	3.8	162
17	On the competition between particle fracture and particle decohesion in metal matrix composites. Acta Materialia, 2004, 52, 4517-4525.	3.8	161
18	Simulation and tomography analysis of textile composite reinforcement deformation at the mesoscopic scale. Composites Science and Technology, 2008, 68, 2433-2440.	3.8	158

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19	Characterization of the morphology of cellular ceramics by 3D image processing of X-ray tomography. <i>Journal of the European Ceramic Society</i> , 2007, 27, 1973-1981.	2.8	155
20	Visualization by X-ray tomography of void growth and coalescence leading to fracture in model materials. <i>Acta Materialia</i> , 2008, 56, 2919-2928.	3.8	149
21	Validation of void growth models using X-ray microtomography characterization of damage in dual phase steels. <i>Acta Materialia</i> , 2011, 59, 7564-7573.	3.8	148
22	Damage initiation in model metallic materials: X-ray tomography and modelling. <i>Acta Materialia</i> , 2004, 52, 2475-2487.	3.8	144
23	Compression behavior of lattice structures produced by selective laser melting: X-ray tomography based experimental and finite element approaches. <i>Acta Materialia</i> , 2018, 159, 395-407.	3.8	144
24	Hard x-ray phase imaging using simple propagation of a coherent synchrotron radiation beam. <i>Journal Physics D: Applied Physics</i> , 1999, 32, A145-A151.	1.3	138
25	Meso-scale FE analyses of textile composite reinforcement deformation based on X-ray computed tomography. <i>Composite Structures</i> , 2014, 116, 165-176.	3.1	134
26	Room-temperature ductility of Ti-6Al-4V alloy with β martensite microstructure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 1512-1520.	2.6	132
27	Characterization and modeling of void nucleation by interface decohesion in dual phase steels. <i>Scripta Materialia</i> , 2010, 63, 973-976.	2.6	131
28	3D composite reinforcement meso F.E. analyses based on X-ray computed tomography. <i>Composite Structures</i> , 2015, 132, 1094-1104.	3.1	127
29	Relationship between internal porosity and fracture strength of die-cast magnesium AM60B alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 395, 315-322.	2.6	123
30	In situ X-ray tomography observation of inhomogeneous deformation in semi-solid aluminium alloys. <i>Scripta Materialia</i> , 2009, 61, 449-452.	2.6	117
31	Assessment of the fatigue crack closure phenomenon in damage-tolerant aluminium alloy by in-situ high-resolution synchrotron X-ray microtomography. <i>Philosophical Magazine</i> , 2003, 83, 2429-2448.	0.7	108
32	In Situ X-ray Radiography and Tomography Observations of the Solidification of Aqueous Alumina Particle Suspensions – Part I: Initial Instants. <i>Journal of the American Ceramic Society</i> , 2009, 92, 2489-2496.	1.9	107
33	2D and 3D Characterization of Metal Foams Using X-ray Tomography. <i>Advanced Engineering Materials</i> , 2002, 4, 803-807.	1.6	100
34	Effect of strut orientation on the microstructure heterogeneities in AlSi10Mg lattices processed by selective laser melting. <i>Scripta Materialia</i> , 2017, 141, 32-35.	2.6	100
35	20 Hz X-ray tomography during an in situ tensile test. <i>International Journal of Fracture</i> , 2016, 200, 3-12.	1.1	99
36	Influence of Particle Size on Ice Nucleation and Growth During the Ice Templating Process. <i>Journal of the American Ceramic Society</i> , 2010, 93, 2507-2510.	1.9	98

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37	Experimental study of the compression behaviour of syntactic foams by in situ X-ray tomography. <i>Acta Materialia</i> , 2007, 55, 1667-1679.	3.8	96
38	Metallic foams: Radiative properties/comparison between different models. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2008, 109, 16-27.	1.1	96
39	Effect of build orientation on the fatigue properties of as-built Electron Beam Melted Ti-6Al-4V alloy. <i>International Journal of Fatigue</i> , 2019, 118, 65-76.	2.8	94
40	Damage quantification in aluminium alloys using in situ tensile tests in X-ray tomography. <i>Engineering Fracture Mechanics</i> , 2011, 78, 2679-2690.	2.0	90
41	Modeling the properties of closed-cell cellular materials from tomography images using finite shell elements. <i>Acta Materialia</i> , 2008, 56, 5524-5534.	3.8	88
42	In situ observation of ductile fracture using X-ray tomography technique. <i>Acta Materialia</i> , 2011, 59, 1995-2008.	3.8	87
43	3D quantitative image analysis of open-cell nickel foams under tension and compression loading using X-ray microtomography. <i>Philosophical Magazine</i> , 2005, 85, 2147-2175.	0.7	84
44	A study of fracture of unidirectional composites using in situ high-resolution synchrotron X-ray microtomography. <i>Composites Science and Technology</i> , 2006, 66, 1348-1353.	3.8	83
45	A Facile and Very Effective Method to Enhance the Mechanical Strength and the Cyclability of Si-Based Electrodes for Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1701787.	10.2	80
46	Ductilization of aluminium alloy 6056 by friction stir processing. <i>Acta Materialia</i> , 2017, 130, 121-136.	3.8	78
47	Time-lapse, three-dimensional in situ imaging of ice crystal growth in a colloidal silica suspension. <i>Acta Materialia</i> , 2013, 61, 2077-2086.	3.8	77
48	Analytical Modelling of the Radiative Properties of Metallic Foams: Contribution of X-Ray Tomography. <i>Advanced Engineering Materials</i> , 2008, 10, 352-360.	1.6	76
49	Fast X-ray tomography and acoustic emission study of damage in metals during continuous tensile tests. <i>Acta Materialia</i> , 2007, 55, 6806-6815.	3.8	75
50	Particle redistribution and structural defect development during ice templating. <i>Acta Materialia</i> , 2012, 60, 4594-4603.	3.8	72
51	X-Ray Tomography Applied to the Characterization of Highly Porous Materials. <i>Annual Review of Materials Research</i> , 2012, 42, 163-178.	4.3	71
52	Solidification Study of Aluminum Alloys using Impulse Atomization: Part I: Heat Transfer Analysis of an Atomized Droplet. <i>Canadian Metallurgical Quarterly</i> , 2002, 41, 97-110.	0.4	69
53	Multiscale Morphological and Electrical Characterization of Charge Transport Limitations to the Power Performance of Positive Electrode Blends for Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2017, 7, 1602239.	10.2	69
54	Observation of void nucleation, growth and coalescence in a model metal matrix composite using X-ray tomography. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 488, 435-445.	2.6	67

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55	Investigation of spacer size effect on architecture and mechanical properties of porous titanium. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 530, 633-642.	2.6	66
56	Characterization and micromechanical modelling of microstructural heterogeneity effects on ductile fracture of 6xxx aluminium alloys. <i>Acta Materialia</i> , 2016, 103, 558-572.	3.8	66
57	Self-Assembly of Faceted Particles Triggered by a Moving Ice Front. <i>Langmuir</i> , 2014, 30, 8656-8663.	1.6	65
58	Role of damage on the flow and fracture of particulate reinforced alloys and metal matrix composites. <i>Acta Materialia</i> , 1997, 45, 5261-5274.	3.8	61
59	<i>In Situ</i> X-ray Radiography and Tomography Observations of the Solidification of Aqueous Alumina Particles Suspensions. Part II: Steady State. <i>Journal of the American Ceramic Society</i> , 2009, 92, 2497-2503.	1.9	60
60	Ice Shaping Properties, Similar to That of Antifreeze Proteins, of a Zirconium Acetate Complex. <i>PLoS ONE</i> , 2011, 6, e26474.	1.1	59
61	Characterization of ductile damage for a high carbon steel using 3D X-ray micro-tomography and mechanical tests – Application to the identification of a shear modified GTN model. <i>Computational Materials Science</i> , 2014, 84, 175-187.	1.4	59
62	Dynamics of the Morphological Degradation of Si-based Anodes for Li-ion Batteries Characterized by In Situ Synchrotron X-ray Tomography. <i>Advanced Energy Materials</i> , 2019, 9, 1803947.	10.2	59
63	Microtomographic study and finite element analysis of the porosity harmfulness in a cast aluminium alloy. <i>International Journal of Fatigue</i> , 2011, 33, 1514-1525.	2.8	56
64	Heterogenous void growth revealed by in situ 3-D X-ray microtomography using automatic cavity tracking. <i>Acta Materialia</i> , 2014, 63, 130-139.	3.8	56
65	Enhancing the tensile properties of EBM as-built thin parts: Effect of HIP and chemical etching. <i>Materials Characterization</i> , 2018, 143, 82-93.	1.9	55
66	In-situ X-ray tomographic monitoring of gypsum plaster setting. <i>Cement and Concrete Research</i> , 2016, 82, 107-116.	4.6	54
67	A synchrotron X-ray study of a Ti/SiCf composite during in situ straining. <i>Acta Materialia</i> , 2001, 49, 153-163.	3.8	53
68	The effect of fibre fractures in the bridging zone of fatigue cracked Ti-6Al-4V/SiC fibre composites. <i>Acta Materialia</i> , 2004, 52, 1423-1438.	3.8	49
69	Dynamics of the Freezing Front During the Solidification of a Colloidal Alumina Aqueous Suspension: <i>In Situ</i> X-ray Radiography, Tomography, and Modeling. <i>Journal of the American Ceramic Society</i> , 2011, 94, 3570-3578.	1.9	49
70	Onset of void coalescence in uniaxial tension studied by continuous X-ray tomography. <i>Acta Materialia</i> , 2013, 61, 1021-1036.	3.8	49
71	Experimental investigation of void coalescence in a dual phase steel using X-ray tomography. <i>Acta Materialia</i> , 2013, 61, 6821-6829.	3.8	49
72	Fast virtual histology using X-ray in-line phase tomography: application to the 3D anatomy of maize developing seeds. <i>Plant Methods</i> , 2015, 11, 55.	1.9	49

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73	Damage assessment in metallic structural materials using high resolution synchrotron X-ray tomography. Nuclear Instruments & Methods in Physics Research B, 2003, 200, 303-307.	0.6	48
74	Thermal conductivity of highly porous metal foams: Experimental and image based finite element analysis. International Journal of Heat and Mass Transfer, 2018, 122, 1-10.	2.5	48
75	Recent results on 3D characterisation of microstructure and damage of metal matrix composites and a metallic foam using X-ray tomography. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 319-321, 216-219.	2.6	47
76	Damage initiation and growth in metals. Comparison between modelling and tomography experiments. Journal of the Mechanics and Physics of Solids, 2005, 53, 2411-2434.	2.3	47
77	Damage evolution in TWIP and standard austenitic steel by means of 3D X ray tomography. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 579, 92-98.	2.6	47
78	Digital Volume Correlation Applied to X-ray Tomography Images from Spherical Indentation Tests on Lightweight Gypsum. Strain, 2014, 50, 444-453.	1.4	47
79	Templated Grain Growth in Macroporous Materials. Journal of the American Ceramic Society, 2014, 97, 1736-1742.	1.9	47
80	Effect of Multiaxial Stress State on Morphology and Spatial Distribution of Voids in Deformed Semicrystalline Polymer Assessed by X-ray Tomography. Macromolecules, 2012, 45, 4658-4668.	2.2	46
81	Cellular solids studied by x-ray tomography and finite element modeling – a review. Journal of Materials Research, 2013, 28, 2191-2201.	1.2	46
82	Quantitative assessment of the impact of second phase particle arrangement on damage and fracture anisotropy. Acta Materialia, 2018, 148, 456-466.	3.8	46
83	Three-dimensional analysis of a compression test on stone wool. Acta Materialia, 2009, 57, 3310-3320.	3.8	45
84	Compressive performance and deformation mechanism of the dynamic gas injection aluminum foams. Materials Characterization, 2019, 147, 11-20.	1.9	45
85	The role of heterogeneity on the flow and fracture of two-phase materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 233, 145-154.	2.6	44
86	Porosity analysis of long-fiber-reinforced ceramic matrix composites using X-ray tomography. Scripta Materialia, 2009, 60, 388-390.	2.6	44
87	Deformation Behavior and Dynamic Recrystallization of Biomedical Co-Cr-W-Ni (L-605) Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 2819-2830.	1.1	44
88	Modelling the competition between interface debonding and particle fracture using a plastic strain dependent cohesive zone. Engineering Fracture Mechanics, 2010, 77, 705-718.	2.0	43
89	<i>In Situ</i> X-Ray Tomography Studies of Microstructural Evolution Combined with 3D Modeling. MRS Bulletin, 2008, 33, 611-619.	1.7	42
90	Influence of wall roughness and packing density on stagnant zone formation during funnel flow discharge from a silo: An X-ray imaging study. Chemical Engineering Science, 2013, 97, 210-224.	1.9	42

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91	A Multi-Scale Investigation of Pore Structure Impact on the Mobilization of Trapped Oil by Surfactant Injection. <i>Transport in Porous Media</i> , 2015, 109, 673-692.	1.2	42
92	SiC single fibre full-fragmentation during straining in a Ti-6Al-4V matrix studied by synchrotron X-rays. <i>Acta Materialia</i> , 2002, 50, 3177-3192.	3.8	41
93	2D and 3D Visualization of Ductile Fracture. <i>Advanced Engineering Materials</i> , 2006, 8, 469-472.	1.6	41
94	Two-scale study of the fracture of an aluminum foam by X-ray tomography and finite element modeling. <i>Materials and Design</i> , 2017, 120, 117-127.	3.3	41
95	Fatigue performances of chemically etched thin struts built by selective electron beam melting: Experiments and predictions. <i>Materialia</i> , 2020, 9, 100589.	1.3	41
96	Three-dimensional microtomographic study of Widmanstätten microstructures in an alpha/beta titanium alloy. <i>Scripta Materialia</i> , 2008, 58, 512-515.	2.6	39
97	Three-dimensional strain mapping using in situ X-ray synchrotron microtomography. <i>Journal of Strain Analysis for Engineering Design</i> , 2011, 46, 549-561.	1.0	39
98	3D morphological evolution of porous titanium by x-ray micro- and nano-tomography. <i>Journal of Materials Research</i> , 2013, 28, 2444-2452.	1.2	39
99	Effect of triaxiality on void growth and coalescence in model materials investigated by X-ray tomography. <i>Acta Materialia</i> , 2012, 60, 2829-2839.	3.8	38
100	Quantitative 3D characterization of intermetallic phases in an Al-Mg industrial alloy by X-ray microtomography. <i>Scripta Materialia</i> , 2006, 55, 123-126.	2.6	37
101	Microstructural analysis of alumina chromium composites by X-ray tomography and 3-D finite element simulation of thermal stresses. <i>Scripta Materialia</i> , 2003, 48, 1219-1224.	2.6	36
102	Nanovoid morphology and distribution in deformed HDPE studied by magnified synchrotron radiation holotomography. <i>Polymer</i> , 2014, 55, 6439-6443.	1.8	36
103	Solidification Study of Aluminum Alloys Using Impulse Atomization: Part ii. Effect of Cooling Rate on Microstructure. <i>Canadian Metallurgical Quarterly</i> , 2002, 41, 193-204.	0.4	35
104	Multiscale morphological characterization of process induced heterogeneities in blended positive electrodes for lithium-ion batteries. <i>Journal of Materials Science</i> , 2017, 52, 3576-3596.	1.7	35
105	Study of the damage mechanisms in an OSPREY Al alloy-SiCp composite by scanning electron microscope in situ tensile tests. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1995, 196, 135-144.	2.6	34
106	X-ray tomographic imaging of Ti/SiC composites. <i>Journal of Microscopy</i> , 2003, 209, 102-112.	0.8	34
107	Ice-templating of Alumina Suspensions: Effect of Supercooling and Crystal Growth During the Initial Freezing Regime. <i>Journal of the American Ceramic Society</i> , 2012, 95, 799-804.	1.9	34
108	Evolution of the 3D Microstructure of a Si-Based Electrode for Li-Ion Batteries Investigated by FIB/SEM Tomography. <i>Journal of the Electrochemical Society</i> , 2016, 163, A1550-A1559.	1.3	34

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109	In situ characterization of Si-based anodes by coupling synchrotron X-ray tomography and diffraction. <i>Nano Energy</i> , 2019, 56, 799-812.	8.2	34
110	Damage assessment in an Al/SiC composite during monotonic tensile tests using synchrotron X-ray microtomography. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1997, 234-236, 633-635.	2.6	33
111	Quantitative Assessment of Deformation-Induced Damage in a Semisolid Aluminum Alloy via X-ray Microtomography. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2008, 39, 2459-2469.	1.1	33
112	Mechanical behaviors of Ti-(Al, Sn) alloys with β martensite microstructure. <i>Journal of Alloys and Compounds</i> , 2011, 509, 2684-2692.	2.8	33
113	Quantitative estimation of volume changes of granular materials during silo flow using X-ray tomography. <i>Chemical Engineering and Processing: Process Intensification</i> , 2011, 50, 59-67.	1.8	33
114	Insight into the Directional Thermal Transport of Hexagonal Boron Nitride Composites. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 41726-41735.	4.0	33
115	In Situ X-Ray Tomography Measurements of Deformation in Cellular Solids. <i>MRS Bulletin</i> , 2003, 28, 284-289.	1.7	32
116	Modeling the mechanical properties of optimally processed cordierite-mullite-alumina ceramic foams by X-ray computed tomography and finite element analysis. <i>Acta Materialia</i> , 2012, 60, 4235-4246.	3.8	32
117	Analysis of the bulk solid flow during gravitational silo emptying using X-ray and ECT tomography. <i>Powder Technology</i> , 2012, 224, 196-208.	2.1	32
118	Fracture behavior of robocast HA/ β -TCP scaffolds studied by X-ray tomography and finite element modeling. <i>Journal of the European Ceramic Society</i> , 2017, 37, 1735-1745.	2.8	32
119	Lubricated compression and X-ray microtomography to analyse the rheology of a fibre-reinforced mortar. <i>Rheologica Acta</i> , 2010, 49, 221-235.	1.1	31
120	Resolution effect on the study of ductile damage using synchrotron X-ray tomography. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012, 284, 15-18.	0.6	31
121	3D morphological analysis of copper foams as current collectors for Li-ion batteries by means of X-ray tomography. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2014, 187, 1-8.	1.7	31
122	Urban pollution of sediments: Impact on the physiology and burrowing activity of tubificid worms and consequences on biogeochemical processes. <i>Science of the Total Environment</i> , 2016, 568, 196-207.	3.9	31
123	A rationale for the influence of grain size on failure of magnesium alloy AZ31: An in situ X-ray microtomography study. <i>Acta Materialia</i> , 2020, 200, 619-631.	3.8	31
124	X-ray tomography and finite element simulation of the indentation behavior of metal foams. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 387-389, 321-325.	2.6	30
125	Simulation and tomography analysis of textile composite reinforcement deformation at the mesoscopic scale. <i>International Journal of Material Forming</i> , 2009, 2, 189-192.	0.9	30
126	In situ observation of syntactic foams under hydrostatic pressure using X-ray tomography. <i>Acta Materialia</i> , 2013, 61, 4035-4043.	3.8	30

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127	Three dimensional imaging of damage in structural materials using high resolution micro-tomography. Nuclear Instruments & Methods in Physics Research B, 2005, 238, 75-82.	0.6	29
128	Numerical Investigation of the Radiative Properties of Polymeric Foams from Tomographic Images. Journal of Thermophysics and Heat Transfer, 2010, 24, 647-658.	0.9	29
129	Ductile damage in aluminium alloy thin sheets: Correlation between micro-tomography observations and mechanical modeling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 558, 217-225.	2.6	29
130	Non-destructive 3-D reconstruction of the martensitic phase in a dual-phase steel using synchrotron holotomography. Scripta Materialia, 2012, 66, 1077-1080.	2.6	29
131	Separation of nucleation and growth of voids during tensile deformation of a dual phase steel using synchrotron microtomography. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 589, 242-251.	2.6	29
132	Climate-Dependent Heat-Triggered Opening Mechanism of <i>Banksia</i> Seed Pods. Advanced Science, 2018, 5, 1700572.	5.6	29
133	Influence of the thermomechanical treatment on the microplastic behaviour of a wrought Al-Zn-Mg-Cu alloy. Acta Materialia, 2004, 52, 1653-1661.	3.8	28
134	Effect of particle clustering on the strengthening versus damage rivalry in particulate reinforced elastic plastic materials: A 3-D analysis from a self-consistent modelling. European Journal of Mechanics, A/Solids, 1999, 18, 785-804.	2.1	27
135	Iron ore sinter porosity characterisation with application of 3D X-ray tomography. Ironmaking and Steelmaking, 2010, 37, 313-319.	1.1	27
136	Three-dimensional investigation of grain orientation effects on void growth in commercially pure titanium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 671, 221-232.	2.6	27
137	Detailed experimental validation and benchmarking of six models for longitudinal tensile failure of unidirectional composites. Composite Structures, 2022, 279, 114828.	3.1	27
138	Variability in erosion rates related to the state of landscape transience in the semi-arid Chilean Andes. Earth Surface Processes and Landforms, 2011, 36, 1736-1748.	1.2	26
139	Influence of cell aspect ratio on architecture and compressive strength of titanium foams. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 7368-7374.	2.6	26
140	Quality control tool of electrode coating for lithium-ion batteries based on X-ray radiography. Journal of Power Sources, 2015, 298, 285-291.	4.0	26
141	Identification of the crushing behavior of brittle foam: From indentation to oedometric tests. Journal of the Mechanics and Physics of Solids, 2017, 98, 181-200.	2.3	26
142	Experimental stress state-dependent void nucleation behavior for advanced high strength steels. International Journal of Mechanical Sciences, 2020, 179, 105661.	3.6	26
143	Understanding the rapid solidification of Al-4.3Cu and Al-17Cu using X-ray tomography. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 249-257.	1.1	25
144	Characterization of porosity, structure, and mechanical properties of electrospun SiOC fiber mats. Journal of Materials Science, 2015, 50, 4221-4231.	1.7	25

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145	Fast In-Situ X-Ray Microtomography Observations of Solidification and Semisolid Deformation of Al-Cu Alloys. <i>Jom</i> , 2012, 64, 83-88.	0.9	24
146	In situ tomographic investigation of damage development in $\pm 45^\circ$ carbon fibre reinforced laminates. <i>Materials Science and Technology</i> , 2015, 31, 587-593.	0.8	24
147	Effect of solution heat treatment on microstructure and damage accumulation in cast Al-Cu alloys. <i>Journal of Alloys and Compounds</i> , 2017, 697, 341-352.	2.8	24
148	Role of crystallographic orientation on intragranular void growth in polycrystalline FCC materials. <i>International Journal of Plasticity</i> , 2021, 147, 103104.	4.1	24
149	Structure and Mechanical Properties of AFS Sandwiches Studied by in-situ Compression Tests in X-ray Microtomography. <i>Advanced Engineering Materials</i> , 2004, 6, 411-415.	1.6	23
150	Modeling Grain Boundary Motion and Dynamic Recrystallization in Pure Metals. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 5861-5875.	1.1	23
151	Influence of fibre distribution and grain size on the mechanical behaviour of friction stir processed Mg-C composites. <i>Materials Characterization</i> , 2015, 107, 125-133.	1.9	23
152	Comparison of aluminium foams prepared by different methods using X-ray tomography. <i>Materials Characterization</i> , 2018, 138, 296-307.	1.9	23
153	On the influence of particle distribution and reverse loading on damage mechanisms of ductile steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 496, 223-233.	2.6	22
154	Experimental determination of the macroscopic fatigue properties of metal hollow sphere structures. <i>Materials Letters</i> , 2009, 63, 1131-1134.	1.3	22
155	The damage process in a biomedical Co-Cr-Mo alloy analyzed by X-ray tomography and electron backscattered diffraction. <i>Scripta Materialia</i> , 2011, 64, 367-370.	2.6	22
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