John Banhart

List of Publications by Year
in descending order

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385 papers	20,388 citations	12330 69 h-index	14208 128 g-index
400 all docs	400 docs citations	400 times ranked	11494 citing authors

#	Article	IF	Citations
1	Manufacture, characterisation and application of cellular metals and metal foams. Progress in Materials Science, 2001, 46, 559-632.	32.8	3,227
2	Porous Metals and Metallic Foams: Current Status and Recent Developments. Advanced Engineering Materials, 2008, 10, 775-787.	3.5	676
3	Decomposition in multi-component AlCoCrCuFeNi high-entropy alloy. Acta Materialia, 2011, 59, 182-190.	7.9	656
4	Elastic and failure response of imperfect three-dimensional metallic lattices: the role of geometric defects induced by Selective Laser Melting. Journal of the Mechanics and Physics of Solids, 2017, 107, 160-184.	4.8	352
5	Investigation of water evolution and transport in fuel cells with high resolution synchrotron x-ray radiography. Applied Physics Letters, 2007, 90, 174105.	3.3	305
6	Deformation characteristics of metal foams. Journal of Materials Science, 1998, 33, 1431-1440.	3.7	304
7	The role of strontium in modifying aluminiumâ€“silicon alloys. Acta Materialia, 2012, 60, 3920-3928.	7.9	292
8	Industrialization of Powder Compact Foaming Process. Advanced Engineering Materials, 2000, 2, 168-174.	3.5	277
9	Lightâ€Metal Foamsâ€”History of Innovation and Technological Challenges. Advanced Engineering Materials, 2013, 15, 82-111.	3.5	274
10	Aluminium foams for transport industry. Materials & Design, 1997, 18, 217-220.	5.1	268
11	A study of aluminium foam formationâ€”kinetics and microstructure. Acta Materialia, 2000, 48, 2349-2362.	7.9	262
12	Aluminium Foam Sandwich Panels: Manufacture, Metallurgy and Applications. Advanced Engineering Materials, 2008, 10, 793-802.	3.5	253
13	Metal Foams: Production and Stability. Advanced Engineering Materials, 2006, 8, 781-794.	3.5	247
14	Advances in neutron radiography and tomography. Journal Physics D: Applied Physics, 2009, 42, 243001.	2.8	243
15	Manufacturing routes for metallic foams. Jom, 2000, 52, 22-27.	1.9	213
16	Neutron imaging in materials science. Materials Today, 2011, 14, 248-256.	14.2	196
17	Structural Changes in Li₂MnO₃ Cathode Material for Liâ€ion Batteries. Advanced Energy Materials, 2014, 4, 1300998.	19.5	194
18	Natural Aging in Alâ€Mgâ€Si Alloys â€“ A Process of Unexpected Complexity. Advanced Engineering Materials, 2010, 12, 559-571.	3.5	189

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19	Modification of titanium hydride for improved aluminium foam manufacture. Acta Materialia, 2006, 54, 1887-1900.	7.9	188
20	Three-dimensional imaging of magnetic fields with polarized neutrons. Nature Physics, 2008, 4, 399-403.	16.7	186
21	Aluminium foams for lighter vehicles. International Journal of Vehicle Design, 2005, 37, 114.	0.3	174
22	High-resolution in-plane investigation of the water evolution and transport in PEM fuel cells. Journal of Power Sources, 2009, 188, 468-474.	7.8	162
23	Cross-sectional insight in the water evolution and transport in polymer electrolyte fuel cells. Applied Physics Letters, 2008, 92, .	3.3	160
24	Kinetics of natural aging in Al-Mg-Si alloys studied by positron annihilation lifetime spectroscopy. Physical Review B, 2011, 83, .	3.2	144
25	Three-dimensional imaging of magnetic domains. Nature Communications, 2010, 1, 125.	12.8	143
26	Atomic-scale compositional characterization of a nanocrystalline AlCrCuFeNiZn high-entropy alloy using atom probe tomography. Acta Materialia, 2013, 61, 4696-4706.	7.9	138
27	Advances in neutron imaging. Materials Today, 2018, 21, 652-672.	14.2	138
28	Damping properties of aluminium foams. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 205, 221-228.	5.6	134
29	Synchrotron X-ray tomography for investigations of water distribution in polymer electrolyte membrane fuel cells. Journal of Power Sources, 2011, 196, 5250-5255.	7.8	131
30	Effect of decomposition of the Crâ€“Feâ€“Co rich phase of AlCoCrCuFeNi high entropy alloy on magnetic properties. Ultramicroscopy, 2011, 111, 619-622.	1.9	131
31	Improvement of aluminium foam technology by tailoring of blowing agent. Scripta Materialia, 2006, 54, 503-508.	5.2	130
32	Desorption of hydrogen from blowing agents used for foaming metals. Composites Science and Technology, 2003, 63, 2293-2300.	7.8	126
33	Properties of heat-treated aluminium foams. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 349, 98-110.	5.6	126
34	On the Road Again: Metal Foams Find Favor. Physics Today, 2002, 55, 37-42.	0.3	119
35	Morphological Evolution of Electrochemically Plated/Stripped Lithium Microstructures Investigated by Synchrotron X-ray Phase Contrast Tomography. ACS Nano, 2016, 10, 7990-7997.	14.6	108
36	Nanocomposites and an extremely hard nanocrystalline intermetallic of Alâ€“Fe alloys prepared by mechanical alloying. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 2370-2378.	5.6	106

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37	Quasiâ€“in situ neutron tomography on polymer electrolyte membrane fuel cell stacks. Applied Physics Letters, 2007, 90, 184101.	3.3	103
38	Combined neutron radiography and locally resolved current density measurements of operating PEM fuel cells. Journal of Power Sources, 2008, 176, 452-459.	7.8	103
39	Three-dimensional study of compressed gas diffusion layers using synchrotron X-ray imaging. Journal of Power Sources, 2014, 253, 123-131.	7.8	102
40	Metal foaming by a powder metallurgy method: Production, properties and applications. Materials Research Innovations, 1998, 2, 181-188.	2.3	101
41	Recent Trends in Aluminum Foam Sandwich Technology. Advanced Engineering Materials, 2012, 14, 1082-1087.	3.5	100
42	Influence of cracks in the microporous layer on the water distribution in a PEM fuel cell investigated by synchrotron radiography. Electrochemistry Communications, 2013, 34, 22-24.	4.7	98
43	3D Mapping of Crystallographic Phase Distribution using Energyâ€Selective Neutron Tomography. Advanced Materials, 2014, 26, 4069-4073.	21.0	98
44	Experimental and numerical analyses of bending of foam-filled sections. Acta Mechanica, 2001, 148, 199-213.	2.1	97
45	Detection system for microimaging with neutrons. Journal of Instrumentation, 2012, 7, P02014-P02014.	1.2	97
46	Aluminum Foams: On the Road to Real Applications. MRS Bulletin, 2003, 28, 290-295.	3.5	96
47	Investigation of 3D water transport paths in gas diffusion layers by combined in-situ synchrotron X-ray radiography and tomography. Electrochemistry Communications, 2011, 13, 1001-1004.	4.7	95
48	Using X-ray tomoscopy to explore the dynamics of foaming metal. Nature Communications, 2019, 10, 3762.	12.8	94
49	Study of the Mechanisms of Internal Short Circuit in a Li/Li Cell by Synchrotron X-ray Phase Contrast Tomography. ACS Energy Letters, 2017, 2, 94-104.	17.4	89
50	Positive effect of natural pre-ageing on precipitation hardening in Alâ€“0.44 at% Mgâ€“0.38 at% Si alloy. Ultramicroscopy, 2009, 109, 585-592.	1.9	87
51	X-ray and neutron imaging â€“ Complementary techniques for materials science and engineering. International Journal of Materials Research, 2010, 101, 1069-1079.	0.3	85
52	Decomposition of TiH2 studied in situ by synchrotron X-ray and neutron diffraction. Acta Materialia, 2011, 59, 6318-6330.	7.9	85
53	Low-Temperature Differential Scanning Calorimetry of an Al-Mg-Si Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 1960-1964.	2.2	85
54	Real-time X-ray Radioscopy on Metallic Foams Using a Compact Micro-Focus Source. Advanced Engineering Materials, 2004, 6, 416-420.	3.5	84

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55	In situ investigation of the discharge of alkaline Znâ€“MnO2 batteries with synchrotron x-ray and neutron tomographies. Applied Physics Letters, 2007, 90, 214102.	3.3	84
56	Visualization of the water distribution in perforated gas diffusion layers by means of synchrotron X-ray radiography. International Journal of Hydrogen Energy, 2012, 37, 7757-7761.	7.1	82
57	Metal foam evolution studied by synchrotron radioscopy. Applied Physics Letters, 2001, 78, 1152-1154.	3.3	80
58	Early stages of solute clustering in an Alâ€“Mgâ€“Si alloy. Acta Materialia, 2015, 91, 355-364.	7.9	80
59	Process Control in Aluminum Foam Production Using Real-Time X-ray Radioscopy. Advanced Engineering Materials, 2002, 4, 814-823.	3.5	78
60	The Role of Oxidation in Blowing Particle-Stabilised Aluminium Foams. Advanced Engineering Materials, 2004, 6, 421-428.	3.5	78
61	Structure and deformation correlation of closed-cell aluminium foam subject to uniaxial compression. Acta Materialia, 2012, 60, 3604-3615.	7.9	78
62	CONRAD-2: the new neutron imaging instrument at the Helmholtz-Zentrum Berlin. Journal of Applied Crystallography, 2016, 49, 195-202.	4.5	78
63	The effect of cooling rate on the structure and properties of closed-cell aluminium foams. Acta Materialia, 2010, 58, 5031-5042.	7.9	76
64	In-situ synchrotron X-ray radiography on high temperature polymer electrolyte fuel cells. Electrochemistry Communications, 2010, 12, 1436-1438.	4.7	74
65	Neutron tomography instrument CONRAD at HZB. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 651, 47-52.	1.6	74
66	Neutron Bragg-edge-imaging for strain mapping under in situ tensile loading. Journal of Applied Physics, 2011, 109, .	2.5	73
67	Microporosity in aluminium foams. Acta Materialia, 2017, 131, 156-168.	7.9	72
68	Industrial applications at the new cold neutron radiography and tomography facility of the HMI. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 542, 16-21.	1.6	71
69	Why are metal foams stable?. Applied Physics Letters, 2006, 89, 154102.	3.3	71
70	Characterization of water exchange and two-phase flow in porous gas diffusion materials by hydrogen-deuterium contrast neutron radiography. Applied Physics Letters, 2008, 92, .	3.3	71
71	Large area high resolution neutron imaging detector for fuel cell research. Journal of Power Sources, 2011, 196, 4631-4637.	7.8	69
72	A highly adaptive detector system for high resolution neutron imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 651, 95-99.	1.6	68

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73	Degradation of Li/S Battery Electrodes On 3D Current Collectors Studied Using X-ray Phase Contrast Tomography. Scientific Reports, 2015, 5, 10921.	3.3	68
74	Effect of La on the crystallization behaviour of amorphous Al94â^'xNi6Lax (x=4â€“7) alloys. Acta Materialia, 2005, 53, 3861-3870.	7.9	66
75	New trends in neutron imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 605, 13-15.	1.6	65
76	Imaging of metallic foams using X-ray micro-CT. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 344, 107-112.	4.7	63
77	Investigation of Energyâ€Relevant Materials with Synchrotron Xâ€Rays and Neutrons. Advanced Engineering Materials, 2011, 13, 712-729.	3.5	63
78	Neutron tomographic investigations of water distributions in polymer electrolyte membrane fuel cell stacks. Journal of Power Sources, 2012, 219, 120-125.	7.8	63
79	Metal foamsâ€"high temperature colloids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 261, 123-130.	4.7	62
80	Early pore formation in aluminium foams studied by synchrotron-based microtomography and 3-D image analysis. Acta Materialia, 2009, 57, 4809-4821.	7.9	62
81	Combined local current distribution measurements and high resolution neutron radiography of operating Direct Methanol Fuel Cells. Electrochemistry Communications, 2009, 11, 1606-1609.	4.7	61
82	The influence of gas diffusion layer wettability on direct methanol fuel cell performance: A combined local current distribution and high resolution neutron radiography study. Journal of Power Sources, 2010, 195, 4765-4771.	7.8	61
83	Unravelling the Mechanism of Lithium Nucleation and Growth and the Interaction with the Solid Electrolyte Interface. ACS Energy Letters, 2021, 6, 1719-1728.	17.4	61
84	In operando synchrotron X-ray radiography studies of polymer electrolyte membrane water electrolyzers. Electrochemistry Communications, 2015, 55, 55-59.	4.7	60
85	First-Principles Theory of Spontaneous-Resistance Anisotropy and Spontaneous Hall Effect in Disordered Ferromagnetic Alloys. Europhysics Letters, 1995, 32, 517-522.	2.0	59
86	`Band structure' and electrical conductivity of disordered layered systems. Journal of Physics Condensed Matter, 1996, 8, 7677-7688.	1.8	58
87	Investigation of metal foam formation by microscopy and ultra small-angle neutron scattering. Acta Materialia, 2001, 49, 3409-3420.	7.9	57
88	Particle-stabilised foams: structure and aging. Soft Matter, 2011, 7, 631-637.	2.7	57
89	Mapping the evolution of hierarchical microstructures in a Ni-based superalloy. Nature Communications, 2013, 4, 2955.	12.8	56
90	Fatigue of a laterally constrained closed cell aluminum foam. Acta Materialia, 2008, 56, 1114-1125.	7.9	55

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91	The new cold neutron radiography and tomography instrument CONRAD at HMI Berlin. Physica B: Condensed Matter, 2006, 385-386, 1213-1215.	2.7	54
92	Fast processes in liquid metal foams investigated by high-speed synchrotron x-ray microradioscopy. Applied Physics Letters, 2008, 92, .	3.3	53
93	High resolution synchrotron X-ray investigation of carbon dioxide evolution in operating direct methanol fuel cells. Electrochemistry Communications, 2009, 11, 1559-1562.	4.7	53
94	On the possibilities of hard X-ray imaging with high spatio-temporal resolution using polychromatic synchrotron radiation. Journal of X-Ray Science and Technology, 2010, 18, 429-441.	1.0	53
95	A study of Mg and Cu additions on the foaming behaviour of Alâ€“Si alloys. Journal of Materials Science, 2011, 46, 5227-5236.	3.7	53
96	Formation of intermetallic Î´ phase in Al-10Si-0.3Fe alloy investigated by in-situ 4D X-ray synchrotron tomography. Acta Materialia, 2017, 129, 194-202.	7.9	53
97	Imaging with polarized neutrons. New Journal of Physics, 2009, 11, 043013.	2.9	52
98	Neutron radiographic in operando investigation of water transport in polymer electrolyte membrane fuel cells with channel barriers. Energy Conversion and Management, 2017, 148, 604-610.	9.2	52
99	Viewing the Early Stage of Metal Foam Formation by Computed Tomography using Synchrotron Radiation. Advanced Engineering Materials, 2002, 4, 808-813.	3.5	51
100	Synchrotron-based radioscopy employing spatio-temporal micro-resolution for studying fast phenomena in liquid metal foams. Journal of Synchrotron Radiation, 2009, 16, 432-434.	2.4	51
101	Defect generation during solidification of aluminium foams. Scripta Materialia, 2010, 63, 235-238.	5.2	51
102	Investigation of water transport dynamics in polymer electrolyte membrane fuel cells based on high porous micro porous layers. Energy, 2016, 102, 161-165.	8.8	51
103	Fatigue Behavior of Aluminum Foams. Journal of Materials Science Letters, 1999, 18, 617-619.	0.5	50
104	Quantitative Structural Assessment of Heterogeneous Catalysts by Electron Tomography. Journal of the American Chemical Society, 2011, 133, 18161-18171.	13.7	50
105	In Operando Quantification of Three-Dimensional Water Distribution in Nanoporous Carbon-Based Layers in Polymer Electrolyte Membrane Fuel Cells. ACS Nano, 2017, 11, 5944-5949.	14.6	50
106	Local structural changes in LiMn1.5Ni0.5O4 spinel cathode material for lithium-ion batteries. Journal of Power Sources, 2014, 255, 439-449.	7.8	49
107	On the structural integrity and electrochemical activity of a 0.5Li2MnO3Â·0.5LiCoO2 cathode material for lithium-ion batteries. Journal of Materials Chemistry A, 2014, 2, 9099.	10.3	49
108	Synchrotron X-ray radioscopic in situ study of high-temperature polymer electrolyte fuel cells - Effect of operation conditions on structure of membrane. Journal of Power Sources, 2014, 246, 290-298.	7.8	49

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109	Bulk nanocrystalline Al85Ni10La5 alloy fabricated by spark plasma sintering of atomized amorphous powders. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 490, 343-350.	5.6	46
110	Structure and distribution of oxides in aluminium foam. Acta Materialia, 2008, 56, 3990-4001.	7.9	45
111	Three-dimensional visualization of the microstructure development of Sr-modified Alâ€“15Si casting alloy using FIB-EsB tomography. Acta Materialia, 2010, 58, 6600-6608.	7.9	45
112	X-ray radioscopy of liquid metalfoams: influence of heating profile, atmosphere and pressure. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 263, 290-294.	4.7	44
113	Stabilisation of aluminium foams and films by the joint action of dispersed particles and oxide films. Acta Materialia, 2015, 99, 313-324.	7.9	44
114	Reversion of natural ageing in Al-Mg-Si alloys. Acta Materialia, 2018, 159, 163-172.	7.9	43
115	Revealing microstructural inhomogeneities with dark-field neutron imaging. Journal of Applied Physics, 2010, 107, 036101.	2.5	42
116	In Situ Microtomographic Monitoring of Discharging Processes in Alkaline Cells. Journal of the Electrochemical Society, 2010, 157, A387.	2.9	42
117	Microstructural investigation of Sr-modified Alâ€“15 wt%Si alloys in the range from micrometer to atomic scale. Ultramicroscopy, 2011, 111, 695-700.	1.9	41
118	Analysis of the internal structure of monodisperse liquid foams by X-ray tomography. Soft Matter, 2011, 7, 9881.	2.7	40
119	Cooperative material transport during the early stage of sintering. Nature Communications, 2011, 2, 298.	12.8	40
120	Investigation of the local catalyst distribution in an aged direct methanol fuel cell MEA by means of differential synchrotron X-ray absorption edge imaging with high energy resolution. Journal of Power Sources, 2013, 221, 210-216.	7.8	40
121	Complementary X-ray and neutron radiography study of the initial lithiation process in lithium-ion batteries containing silicon electrodes. Applied Surface Science, 2017, 399, 359-366.	6.1	40
122	Approximations made in evaluating the residual electrical dc resistivity of disordered alloys. Physical Review B, 1994, 50, 2104-2109.	3.2	39
123	Foamability of MgAl2O4 (Spinel)-Reinforced Aluminum Alloy Composites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2898-2908.	2.2	39
124	Metal Foaming Investigated by X-ray Radioscopy. Metals, 2012, 2, 10-21.	2.3	39
125	Three-Dimensional Visualization of Gas Evolution and Channel Formation inside a Lithium-Ion Battery. ACS Applied Materials & Interfaces, 2016, 8, 7156-7164.	8.0	39
126	Effect of ageing of gas diffusion layers on the water distribution in flow field channels of polymer electrolyte membrane fuel cells. Journal of Power Sources, 2016, 301, 386-391.	7.8	39

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127	Investigation of failure mechanisms in silicon based half cells during the first cycle by micro X-ray tomography and radiography. Journal of Power Sources, 2016, 321, 174-184.	7.8	38
128	Applicability of the two-current model for systems with strongly spin-dependent disorder. Physical Review B, 1997, 56, 10165-10171.	3.2	37
129	Influence of particle additions on the foaming behaviour of AlSi11/TiH2 composites made by semi-solid processing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 480, 283-288.	5.6	37
130	Polarized neutron imaging and three-dimensional calculation of magnetic flux trapping in bulk of superconductors. Physical Review B, 2012, 85, .	3.2	37
131	Effect of rhenium addition on the microstructure of the superalloy Inconel 706. Acta Materialia, 2008, 56, 1609-1618.	7.9	36
132	Solidification of metal foams. Acta Materialia, 2010, 58, 6358-6370.	7.9	36
133	Distribution of Fe-rich phases in eutectic grains of Sr-modified Alâ€“10wt.% Siâ€“0.1wt.% Fe casting alloy. Journal of Alloys and Compounds, 2013, 558, 18-25.	5.5	36
134	Srâ€“Alâ€“Si co-segregated regions in eutectic Si phase of Sr-modified Alâ€“10Si alloy. Ultramicroscopy, 2013, 132, 216-221.	1.9	36
135	Diamagnetic susceptibility of pure metals and binary alloys. Journal of Magnetism and Magnetic Materials, 1986, 61, 221-224.	2.3	35
136	Anisotropic electrical resistivity of ferromagnetic Co-Pd and Co-Pt alloys. Physical Review B, 1996, 54, 8479-8486.	3.2	35
137	Natural and artificial ageing in aluminium alloys â€“ the role of excess vacancies. Acta Materialia, 2021, 215, 117014.	7.9	35
138	Properties and Applications of Cast Aluminum Sponges. Advanced Engineering Materials, 2000, 2, 188-191.	3.5	34
139	Lead and lead alloy foams. Acta Materialia, 2005, 53, 4903-4917.	7.9	34
140	Neutron tomography for archaeological investigations. Journal of Neutron Research, 2006, 14, 29-36.	1.1	34
141	Kinetics of coalescence in liquid aluminium foams. Soft Matter, 2011, 7, 9216.	2.7	34
142	Foaming of AA 6061 using multiple pieces of foamable precursor. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 438, 47-55.	4.7	34
143	Stability of metallic foams studied under microgravity. Journal of Physics Condensed Matter, 2003, 15, S427-S433.	1.8	33
144	Metal foamsâ€”High temperature colloids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 254-263.	4.7	33

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145	Segregation-controlled nanocrystallization in an Alâ€“Niâ€“La metallic glass. Applied Physics Letters, 2008, 92, .	3.3	33
146	Investigation of the skin effect in the bulk of electrical conductors with spin-polarized neutron radiography. Journal of Applied Physics, 2008, 104, .	2.5	33
147	Neutron Bragg Edge Tomography for Phase Mapping. Physics Procedia, 2015, 69, 227-236.	1.2	33
148	Effect of Cu and Ge on solute clustering in Alâ€“Mgâ€“Si alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 658, 238-245.	5.6	33
149	Tomoscopy: Timeâ€Resolved Tomography for Dynamic Processes in Materials. Advanced Materials, 2021, 33, e2104659.	21.0	32
150	Internal friction of foamed aluminium in the range of acoustic frequencies. Journal of Materials Science, 1998, 33, 1769-1775.	3.7	31
151	Adaptation of aluminium foam properties by means of precipitation hardening. Materials Science and Technology, 2002, 18, 474-479.	1.6	31
152	Coarsening of grain-refined semi-solid Alâ€“Ge32 alloy: X-ray microtomography and in situ radiography. Acta Materialia, 2007, 55, 5045-5055.	7.9	31
153	Influence of heat treatment on compression fatigue of aluminium foams. Journal of Materials Science, 2002, 37, 3447-3451.	3.7	30
154	Real-time X-ray Investigation of Aluminum Foam Sandwich Production. Advanced Engineering Materials, 2001, 3, 407-411.	3.5	29
155	Investigation of pore initiation in metal foams by synchrotron-radiation tomography. Applied Physics Letters, 2005, 86, 231907.	3.3	29
156	Radiography and tomography with polarized neutrons. Journal of Magnetism and Magnetic Materials, 2014, 350, 188-198.	2.3	29
157	Intermetallic phases in high purity Al-10Si-0.3Fe cast alloys with and without Sr modification studied by FIB tomography and TEM. Intermetallics, 2016, 72, 53-61.	3.9	29
158	Investigation of electronic and local structural changes during lithium uptake and release of nano-crystalline NiFe2O4 by X-ray absorption spectroscopy. Journal of Power Sources, 2017, 342, 56-63.	7.8	29
159	Natural ageing clustering under different quenching conditions in an Al-Mg-Si alloy. Scripta Materialia, 2021, 190, 179-182.	5.2	29
160	Neutron Bragg-edge mapping of weld seams. International Journal of Materials Research, 2012, 103, 151-154.	0.3	29
161	Particle and liquid motion in semi-solid aluminium alloys: A quantitative in situ microradioscopy study. Acta Materialia, 2013, 61, 1244-1253.	7.9	28
162	In-Operando Neutron Radiography Studies of Polymer Electrolyte Membrane Water Electrolyzers. ECS Transactions, 2015, 69, 1135-1140.	0.5	28

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163	Strain hardening during constrained deformation of metal foams â€“ Effect of shear displacement. Scripta Materialia, 2009, 61, 752-755.	5.2	27
164	Al and Zn Foams Blown by an Intrinsic Gas Source. Advanced Engineering Materials, 2010, 12, 472-477.	3.5	27
165	Study of ageing in Alâ€“Mgâ€“Si alloys by positron annihilation spectroscopy. Physica B: Condensed Matter, 2012, 407, 2689-2696.	2.7	27
166	Inâ€…Situ Radiographic Investigation of (De)Lithiation Mechanisms in a Tinâ€Electrode Lithiumâ€ion Battery. ChemSusChem, 2016, 9, 946-950.	6.8	27
167	Foaming of blowing agent-free aluminium powder compacts. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 264-269.	4.7	26
168	Influence of local carbon fibre orientation on the water transport in the gas diffusion layer of polymer electrolyte membrane fuel cells. Electrochemistry Communications, 2015, 51, 133-136.	4.7	26
169	Non-destructive characterization of lithium deposition at the Li/separator and Li/carbon matrix interregion by synchrotron X-ray tomography. Nano Energy, 2019, 62, 11-19.	16.0	26
170	Improved Performance of Polymer Electrolyte Membrane Fuel Cells with Modified Microporous Layer Structures. Energy Technology, 2017, 5, 1612-1618.	3.8	25
171	Improvement of aluminium foaming by powder consolidation under vacuum. Scripta Materialia, 2009, 61, 552-555.	5.2	24
172	Positron lifetime study of the formation of vacancy clusters and dislocations in quenched Al, Alâ€“Mg and Alâ€“Si alloys. Journal of Materials Science, 2016, 51, 7754-7767.	3.7	24
173	Analysis of clustering in Alâ€“Mgâ€“Si alloy by density spectrum analysis of atom probe data. Ultramicroscopy, 2011, 111, 701-705.	1.9	23
174	Correlation between foam structure and mechanical performance of aluminium foam sandwich panels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 800, 140260.	5.6	23
175	Î³â€²/Î³â€³ Co-precipitation in Inconel 706 alloy: A 3D finite element study. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 417, 82-89.	5.6	22
176	Drainage of particle-stabilised aluminium composites through single films and Plateau borders. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 438, 85-92.	4.7	22
177	Collapse of Aluminum Foam in Two Different Atmospheres. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2010, 41, 500-504.	2.1	21
178	Modification of Moâ€“Si alloy microstructure by small additions of Zr. Ultramicroscopy, 2011, 111, 706-710.	1.9	21
179	Partial decomposition of TiH2 studied in situ by energy-dispersive diffraction and ex situ by diffraction microtomography of hard X-ray synchrotron radiation. Scripta Materialia, 2012, 66, 757-760.	5.2	21
180	Analysis of liquid metal foams through X-ray radioscopy and microgravity experiments. Soft Matter, 2014, 10, 6955-6962.	2.7	21

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