

# Peter D. Lee

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4262486/publications.pdf>

Version: 2024-02-01

383  
papers

16,933  
citations

11908

72  
h-index

31191

106  
g-index

400  
all docs

400  
docs citations

400  
times ranked

14798  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms of gas and shrinkage porosity formation in solidifying shear bands. Journal of Materials Processing Technology, 2022, 299, 117338.	3.1	7
2	In situ 4D tomography image analysis framework to follow sintering within 3D-printed glass scaffolds. Journal of the American Ceramic Society, 2022, 105, 1671-1684.	1.9	5
3	The Bronchial Circulation in COVID-19 Pneumonia. American Journal of Respiratory and Critical Care Medicine, 2022, 205, 121-125.	2.5	32
4	Keyhole fluctuation and pore formation mechanisms during laser powder bed fusion additive manufacturing. Nature Communications, 2022, 13, 1170.	5.8	98
5	Sinter formation during directed energy deposition of titanium alloy powders. International Journal of Machine Tools and Manufacture, 2022, 176, 103887.	6.2	12
6	The role of <i>in-situ</i> nano-TiB <sub>2</sub> particles in improving the printability of noncastable 2024Al alloy. Materials Research Letters, 2022, 10, 656-665.	4.1	24
7	A multiscale X-ray phase-contrast tomography dataset of a whole human left lung. Scientific Data, 2022, 9, .	2.4	5
8	Dendritic crystallization in hydrous basaltic magmas controls magma mobility within the Earth's crust. Nature Communications, 2022, 13, .	5.8	17
9	Time resolved in-situ multi-contrast X-ray imaging of melting in metals. Scientific Reports, 2022, 12, .	1.6	0
10	In situ X-ray quantification of melt pool behaviour during directed energy deposition additive manufacturing of stainless steel. Materials Letters, 2021, 286, 129205.	1.3	28
11	In-situ synchrotron characterisation of fracture initiation and propagation in shales during indentation. Energy, 2021, 215, 119161.	4.5	16
12	Linking multi-scale 3D microstructure to potential enhanced natural gas recovery and subsurface CO <sub>2</sub> storage for Bowland shale, UK. Energy and Environmental Science, 2021, 14, 4481-4498.	15.6	27
13	Reducing epistemic and model uncertainty in ionic inter-diffusion chronology: A 3D observation and dynamic modeling approach using olivine from Piton de la Fournaise, La Réunion. American Mineralogist, 2021, 106, 481-494.	0.9	10
14	Observation of microstructure evolution during inertia friction welding using in-situ synchrotron X-ray diffraction. Journal of Synchrotron Radiation, 2021, 28, 790-803.	1.0	2
15	3D printed silica-gelatin hybrid scaffolds of specific channel sizes promote collagen Type II, Sox9 and Aggrecan production from chondrocytes. Materials Science and Engineering C, 2021, 123, 111964.	3.8	22
16	Synchrotron X-ray imaging of directed energy deposition additive manufacturing of titanium alloy Ti-6242. Additive Manufacturing, 2021, 41, 101969.	1.7	17
17	Progress on In Situ and Operando X-ray Imaging of Solidification Processes. Materials, 2021, 14, 2374.	1.3	15
18	Correlative Synchrotron X-ray Imaging and Diffraction of Directed Energy Deposition Additive Manufacturing. Acta Materialia, 2021, 209, 116777.	3.8	47

#	ARTICLE	IF	CITATIONS
19	Enhanced near-infrared absorption for laser powder bed fusion using reduced graphene oxide. <i>Applied Materials Today</i> , 2021, 23, 101009.	2.3	4
20	Variance Stabilised Optimisation of Neural Networks: A Case Study in Additive Manufacturing. , 2021, , .		1
21	Time-lapse nanometre-scale 3D synchrotron imaging and image-based modelling of the response of shales to heating. <i>International Journal of Coal Geology</i> , 2021, 244, 103816.	1.9	6
22	In situ quantification of crystallisation kinetics of plagioclase and clinopyroxene in basaltic magma: Implications for lava flow. <i>Earth and Planetary Science Letters</i> , 2021, 568, 117016.	1.8	10
23	Role of the local stress systems on microstructural inhomogeneity during semisolid injection. <i>Acta Materialia</i> , 2021, 214, 117015.	3.8	4
24	The effects of powder reuse on the mechanical response of electron beam additively manufactured Ti6Al4V parts. <i>Additive Manufacturing</i> , 2021, 46, 102101.	1.7	12
25	Unraveling compacted graphite evolution during solidification of cast iron using in-situ synchrotron X-ray tomography. <i>Carbon</i> , 2021, 184, 799-810.	5.4	6
26	Achieving homogeneity in a high-Fe $\hat{1}$ -Ti alloy laser-printed from blended elemental powders. <i>Materials and Design</i> , 2021, 210, 110072.	3.3	15
27	Modelling the complex evaporated gas flow and its impact on particle spattering during laser powder bed fusion. <i>Additive Manufacturing</i> , 2021, 47, 102332.	1.7	4
28	Regional Variations in Discrete Collagen Fibre Mechanics within Intact Intervertebral Disc Resolved Using Synchrotron Computed Tomography and Digital Volume Correlation. <i>Acta Biomaterialia</i> , 2021, , .	4.1	7
29	In situ synchrotron investigation of degenerate graphite nodule evolution in ductile cast iron. <i>Acta Materialia</i> , 2021, 221, 117367.	3.8	6
30	Imaging intact human organs with local resolution of cellular structures using hierarchical phase-contrast tomography. <i>Nature Methods</i> , 2021, 18, 1532-1541.	9.0	113
31	Dynamic Multicontrast X-Ray Imaging Method Applied to Additive Manufacturing. <i>Physical Review Letters</i> , 2021, 127, 215503.	2.9	7
32	Oxidation induced mechanisms during directed energy deposition additive manufactured titanium alloy builds. <i>Additive Manufacturing Letters</i> , 2021, 1, 100022.	0.9	6
33	Detection and Tracking Volumes of Interest in 3D Printed Tissue Engineering Scaffolds using 4D Imaging Modalities. , 2021, 2021, 1230-1233.		0
34	Small-angle neutron scattering reveals the effect of Mo on interphase nano-precipitation in Ti-Mo micro-alloyed steels. <i>Scripta Materialia</i> , 2020, 174, 24-28.	2.6	12
35	In situ characterization of nanoscale strains in loaded whole joints via synchrotron X-ray tomography. <i>Nature Biomedical Engineering</i> , 2020, 4, 343-354.	11.6	49
36	Bioactive glass scaffold architectures regulate patterning of bone regeneration in vivo. <i>Applied Materials Today</i> , 2020, 20, 100770.	2.3	16

#	ARTICLE	IF	CITATIONS
37	Capturing Marangoni flow via synchrotron imaging of selective laser melting. IOP Conference Series: Materials Science and Engineering, 2020, 861, 012010.	0.3	18
38	In situ radiographic and ex situ tomographic analysis of pore interactions during multilayer builds in laser powder bed fusion. Additive Manufacturing, 2020, 36, 101512.	1.7	20
39	Magnetic Effects on Microstructure and Solute Plume Dynamics of Directionally Solidifying Ga-In Alloy. Jom, 2020, 72, 3645-3651.	0.9	13
40	Towards understanding grain nucleation under Additive Manufacturing solidification conditions. Acta Materialia, 2020, 195, 392-403.	3.8	127
41	In-situ Synchrotron imaging of keyhole mode multi-layer laser powder bed fusion additive manufacturing. Applied Materials Today, 2020, 20, 100650.	2.3	46
42	Melt pool morphology in directed energy deposition additive manufacturing process. IOP Conference Series: Materials Science and Engineering, 2020, 861, 012012.	0.3	14
43	Columnar-to-equiaxed transition in a laser scan for metal additive manufacturing. IOP Conference Series: Materials Science and Engineering, 2020, 861, 012007.	0.3	6
44	Revealing the mechanisms by which magneto-hydrodynamics disrupts solidification microstructures. Acta Materialia, 2020, 196, 200-209.	3.8	26
45	Semi-solid compression of nano/micro-particle reinforced Al-Cu composites: An in situ synchrotron tomographic study. Materialia, 2020, 12, 100817.	1.3	7
46	High-speed synchrotron X-ray imaging of glass foaming and thermal conductivity simulation. Acta Materialia, 2020, 189, 85-92.	3.8	20
47	Gravity effect on thermal-solutal convection during solidification revealed by four-dimensional synchrotron imaging with compositional mapping. Scripta Materialia, 2020, 180, 29-33.	2.6	20
48	Lasting organ-level bone mechanoadaptation is unrelated to local strain. Science Advances, 2020, 6, eaax8301.	4.7	21
49	4D synchrotron tomographic imaging of network and fibre level micromechanics in softwood paper. Materialia, 2020, 11, 100680.	1.3	2
50	Détermination de la taille et du nombre de chantillons devant être analysés en laboratoire pour la caractérisation statistique de la microstructure d'une roche argileuse. Revue Française De Géotechnique, 2020, , 1.	0.1	1
51	Combined Deformation and Solidification-Driven Porosity Formation in Aluminum Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 4891-4899.	1.1	21
52	Ice Crystal Coarsening in Ice Cream during Cooling: A Comparison of Theory and Experiment. Crystals, 2019, 9, 321.	1.0	11
53	Magma fragmentation in highly explosive basaltic eruptions induced by rapid crystallization. Nature Geoscience, 2019, 12, 1023-1028.	5.4	91
54	High-energy, high-resolution, fly-scan X-ray phase tomography. Scientific Reports, 2019, 9, 8913.	1.6	14

#	ARTICLE	IF	CITATIONS
55	Four-dimensional imaging and quantification of viscous flow sintering within a 3D printed bioactive glass scaffold using synchrotron X-ray tomography. <i>Materials Today Advances</i> , 2019, 2, 100011.	2.5	13
56	A novel upscaling procedure for characterising heterogeneous shale porosity from nanometer-to millimetre-scale in 3D. <i>Energy</i> , 2019, 181, 1285-1297.	4.5	66
57	Synchrotron tomography of intervertebral disc deformation quantified by digital volume correlation reveals microstructural influence on strain patterns. <i>Acta Biomaterialia</i> , 2019, 92, 290-304.	4.1	46
58	Fluid Injection Experiments in Shale at Elevated Confining Pressures: Determination of Flaw Sizes From Mechanical Experiments. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 5500-5520.	1.4	15
59	Impact of pore structure on the thermal conductivity of glass foams. <i>Materials Letters</i> , 2019, 250, 72-74.	1.3	30
60	Multiscale analyses reveal native-like lamellar bone repair and near perfect bone-contact with porous strontium-loaded bioactive glass. <i>Biomaterials</i> , 2019, 209, 152-162.	5.7	54
61	Effect of preheating on the thermal, microstructural and mechanical properties of selective electron beam melted Ti-6Al-4V components. <i>Materials and Design</i> , 2019, 174, 107792.	3.3	57
62	Growth of $\beta$ intermetallic in an Al-Cu-Si alloy during directional solidification via machine learned 4D quantification. <i>Scripta Materialia</i> , 2019, 165, 29-33.	2.6	21
63	In Situ Tomographic Observation of Dendritic Growth in Mg/Al Matrix Composites. <i>Minerals, Metals and Materials Series</i> , 2019, , 1561-1567.	0.3	0
64	Numerical simulation of wave-like nucleation events. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 529, 012043.	0.3	2
65	Effects of strain rate on hot tear formation in Al-Si-Cu alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 529, 012053.	0.3	4
66	The effect of powder oxidation on defect formation in laser additive manufacturing. <i>Acta Materialia</i> , 2019, 166, 294-305.	3.8	217
67	Image based in silico characterisation of the effective thermal properties of a graphite foam. <i>Carbon</i> , 2019, 143, 542-558.	5.4	8
68	Operando Visualization and Multi-scale Tomography Studies of Dendrite Formation and Dissolution in Zinc Batteries. <i>Joule</i> , 2019, 3, 485-502.	11.7	300
69	A biocompatible thermoset polymer binder for Direct Ink Writing of porous titanium scaffolds for bone tissue engineering. <i>Materials Science and Engineering C</i> , 2019, 95, 160-165.	3.8	32
70	X-ray computed tomography of the anterior cruciate ligament and patellar tendon. <i>Muscles, Ligaments and Tendons Journal</i> , 2019, 04, 238.	0.1	25
71	Quantifying the Effects of Grain Refiner Addition on the Solidification of Fe-Rich Intermetallics in Al-Si-Cu Alloys Using In Situ Synchrotron X-Ray Tomography. <i>Minerals, Metals and Materials Series</i> , 2018, , 1067-1073.	0.3	2
72	The influence of nanoparticles on dendritic grain growth in Mg alloys. <i>Acta Materialia</i> , 2018, 152, 127-137.	3.8	84

#	ARTICLE	IF	CITATIONS
73	A review of techniques for visualising soft tissue microstructure deformation and quantifying strain <i>in vivo</i> . <i>Journal of Microscopy</i> , 2018, 272, 165-179.	0.8	35
74	Work hardening behaviour in banded dual phase steel structures with improved formability. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 713, 278-286.	2.6	23
75	Transient peak-strain matching partially recovers the age-impaired mechanoadaptive cortical bone response. <i>Scientific Reports</i> , 2018, 8, 6636.	1.6	21
76	In situ X-ray imaging of defect and molten pool dynamics in laser additive manufacturing. <i>Nature Communications</i> , 2018, 9, 1355.	5.8	495
77	Sexually dimorphic tibia shape is linked to natural osteoarthritis in STR/Ort mice. <i>Osteoarthritis and Cartilage</i> , 2018, 26, 807-817.	0.6	18
78	Joint image reconstruction method with correlative multi-channel prior for x-ray spectral computed tomography. <i>Inverse Problems</i> , 2018, 34, 064001.	1.0	35
79	Classical and quantum calculations of the temperature dependence of the free energy of argon. <i>Computational Materials Science</i> , 2018, 144, 36-41.	1.4	5
80	Investigating nano-precipitation in a V-containing HSLA steel using small angle neutron scattering. <i>Acta Materialia</i> , 2018, 145, 84-96.	3.8	47
81	Direct ink writing of highly bioactive glasses. <i>Journal of the European Ceramic Society</i> , 2018, 38, 837-844.	2.8	87
82	Quantitative measurement of olivine composition in three dimensions using helical-scan X-ray micro-tomography. <i>American Mineralogist</i> , 2018, 103, 1800-1811.	0.9	11
83	Time-Resolved Tomographic Quantification of the Microstructural Evolution of Ice Cream. <i>Materials</i> , 2018, 11, 2031.	1.3	18
84	Correlative Optical and X-ray Imaging of Strain Evolution During Double-torsion Fracture Toughness Measurements in Shale. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 10,517.	1.4	12
85	A graphite nodule growth model validated by <i>in situ</i> synchrotron x-ray tomography. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2018, 26, 085012.	0.8	4
86	Analysis of Local Conditions on Graphite Growth and Shape During Solidification of Ductile Cast Iron. <i>Transactions of the Indian Institute of Metals</i> , 2018, 71, 2699-2705.	0.7	1
87	Laser-matter interactions in additive manufacturing of stainless steel SS316L and 13-93 bioactive glass revealed by in situ X-ray imaging. <i>Additive Manufacturing</i> , 2018, 24, 647-657.	1.7	57
88	Revealing the microstructural stability of a three-phase soft solid (ice cream) by 4D synchrotron X-ray tomography. <i>Journal of Food Engineering</i> , 2018, 237, 204-214.	2.7	25
89	Crystallisation in basaltic magmas revealed via in situ 4D synchrotron X-ray microtomography. <i>Scientific Reports</i> , 2018, 8, 8377.	1.6	53
90	Synchrotron quantification of graphite nodule evolution during the solidification of cast iron. <i>Acta Materialia</i> , 2018, 155, 393-401.	3.8	33

#	ARTICLE	IF	CITATIONS
91	Enabling three-dimensional densitometric measurements using laboratory source X-ray micro-computed tomography. <i>SoftwareX</i> , 2018, 7, 115-121.	1.2	9
92	A Computed Microtomography Method for Understanding Epiphyseal Growth Plate Fusion. <i>Frontiers in Materials</i> , 2018, 4, 48.	1.2	13
93	Probing deformation mechanisms of a FeCoCrNi high-entropy alloy at 293 and 77â€K using in situ neutron diffraction. <i>Acta Materialia</i> , 2018, 154, 79-89.	3.8	207
94	Hierarchical integration of porosity in shales. <i>Scientific Reports</i> , 2018, 8, 11683.	1.6	88
95	Synchrotron tomographic quantification of the influence of Zn concentration on dendritic growth in Mg-Zn alloys. <i>Acta Materialia</i> , 2018, 156, 287-296.	3.8	46
96	Variability in spatial distribution of mineral phases in the Lower Bowland Shale, UK, from the mm- to 1/4m-scale: Quantitative characterization and modelling. <i>Marine and Petroleum Geology</i> , 2018, 92, 109-127.	1.5	17
97	Bouncing and 3D printable hybrids with self-healing properties. <i>Materials Horizons</i> , 2018, 5, 849-860.	6.4	44
98	X-ray phase-contrast imaging with engineered porous materials over 50â€keV. <i>Journal of Synchrotron Radiation</i> , 2018, 25, 1182-1188.	1.0	6
99	Dataset concerning the analytical approximation of the Ae3 temperature. <i>Data in Brief</i> , 2017, 10, 330-334.	0.5	1
100	Characterising precipitate evolution in multi-component cast aluminium alloys using small-angle X-ray scattering. <i>Journal of Alloys and Compounds</i> , 2017, 703, 344-353.	2.8	12
101	Deformation mechanisms of Mo alloyed FeCoCrNi high entropy alloy: In situ neutron diffraction. <i>Acta Materialia</i> , 2017, 127, 471-480.	3.8	153
102	Revealing dendritic pattern formation in Ni, Fe and Co alloys using synchrotron tomography. <i>Acta Materialia</i> , 2017, 128, 241-248.	3.8	36
103	A Novel Tomographic Reconstruction Method Based on the Robust Student's t Function For Suppressing Data Outliers. <i>IEEE Transactions on Computational Imaging</i> , 2017, 3, 682-693.	2.6	12
104	Calibrated X-ray micro-tomography for mineral ore quantification. <i>Minerals Engineering</i> , 2017, 110, 122-130.	1.8	52
105	Correlative multi-scale imaging of shales: a review and future perspectives. <i>Geological Society Special Publication</i> , 2017, 454, 175-199.	0.8	80
106	Highly degradable porous melt-derived bioactive glass foam scaffolds for bone regeneration. <i>Acta Biomaterialia</i> , 2017, 57, 449-461.	4.1	84
107	Synchrotron X-ray tomographic quantification of microstructural evolution in ice cream â€“ a multi-phase soft solid. <i>RSC Advances</i> , 2017, 7, 15561-15573.	1.7	34
108	Atomic Layer Deposition of a Silver Nanolayer on Advanced Titanium Orthopedic Implants Inhibits Bacterial Colonization and Supports Vascularized de Novo Bone Ingrowth. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700033.	3.9	35

#	ARTICLE	IF	CITATIONS
109	Synchrotron tomographic quantification of strain and fracture during simulated thermal maturation of an organic-rich shale, UK Kimmeridge Clay. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 2553-2564.	1.4	31
110	Model-based iterative reconstruction using higher-order regularization of dynamic synchrotron data. <i>Measurement Science and Technology</i> , 2017, 28, 094004.	1.4	14
111	Investigating the evolving microstructure of lithium metal electrodes in 3D using X-ray computed tomography. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 22111-22120.	1.3	47
112	An enhanced understanding of the Basinal Bowland shale in Lancashire (UK), through microtextural and mineralogical observations. <i>Marine and Petroleum Geology</i> , 2017, 86, 1374-1390.	1.5	25
113	Multi-scale 3D characterisation of porosity and organic matter in shales with variable TOC content and thermal maturity: Examples from the Lublin and Baltic Basins, Poland and Lithuania. <i>International Journal of Coal Geology</i> , 2017, 180, 100-112.	1.9	58
114	Stable sulfuraphane protects against gait anomalies and modifies bone microarchitecture in the spontaneous STR/Ort model of osteoarthritis. <i>Bone</i> , 2017, 103, 308-317.	1.4	19
115	Visualising the 3D microstructure of stained and native intervertebral discs using X-ray microtomography. <i>Scientific Reports</i> , 2017, 7, 16279.	1.6	27
116	Metastable austenite driven work-hardening behaviour in a TRIP-assisted dual phase steel. <i>International Journal of Plasticity</i> , 2017, 88, 126-139.	4.1	72
117	Dendritic evolution during coarsening of Mg-Zn alloys via 4D synchrotron tomography. <i>Acta Materialia</i> , 2017, 123, 373-382.	3.8	81
118	The effects of Thermoelectric Magnetohydrodynamics in directional solidification under a transverse magnetic field. <i>Journal of Crystal Growth</i> , 2017, 457, 270-274.	0.7	37
119	Insights into Ferric Leaching of Low Grade Metal Sulfide-Containing ores in an Unsaturated Ore Bed Using X-ray Computed Tomography. <i>Minerals (Basel, Switzerland)</i> , 2017, 7, 85.	0.8	9
120	Sost Deficiency does not Alter Bone's Lacunar or Vascular Porosity in Mice. <i>Frontiers in Materials</i> , 2017, 4, 27.	1.2	10
121	X-ray Tomographic Imaging of Tensile Deformation Modes of Electrospun Biodegradable Polyester Fibers. <i>Frontiers in Materials</i> , 2017, 4, .	1.2	31
122	Biotransformation of Silver Released from Nanoparticle Coated Titanium Implants Revealed in Regenerating Bone. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 21169-21180.	4.0	39
123	Prolonging disuse in aged mice amplifies cortical but not trabecular bones' response to mechanical loading. <i>Journal of Musculoskeletal Neuronal Interactions</i> , 2017, 17, 218-225.	0.1	9
124	Calculation of Physical Properties for Use in Models of Continuous Casting Process-Part 1: Mould Slags. <i>ISIJ International</i> , 2016, 56, 264-273.	0.6	54
125	Calculation of Physical Properties for Use in Models of Continuous Casting Process-Part 2: Steels. <i>ISIJ International</i> , 2016, 56, 274-281.	0.6	13
126	Temporal sparsity exploiting nonlocal regularization for 4D computed tomography reconstruction. <i>Journal of X-Ray Science and Technology</i> , 2016, 24, 207-219.	0.7	13



#	ARTICLE	IF	CITATIONS
127	The effect of the melt thermal gradient on the size of the constitutionally supercooled zone. IOP Conference Series: Materials Science and Engineering, 2016, 117, 012001.	0.3	5
128	The role of aluminium in chemical and phase segregation in a TRIP-assisted dual phase steel. Acta Materialia, 2016, 115, 132-142.	3.8	42
129	Sparsity seeking total generalized variation for undersampled tomographic reconstruction. , 2016, , .		4
130	Repeated crack healing in MAX-phase ceramics revealed by 4D in situ synchrotron X-ray tomographic microscopy. Scientific Reports, 2016, 6, 23040.	1.6	80
131	Refinement and growth enhancement of Al <sub>2</sub> Cu phase during magnetic field assisting directional solidification of hypereutectic Al-Cu alloy. Scientific Reports, 2016, 6, 24585.	1.6	30
132	Embrittlement of alloy 625 and effect of remedial treatments. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2016, 230, 328-331.	0.7	1
133	VolcÃn de Colima dome collapse of July, 2015 and associated pyroclastic density currents. Journal of Volcanology and Geothermal Research, 2016, 320, 100-106.	0.8	58
134	Comparison of three-dimensional analysis and stereological techniques for quantifying lithium-ion battery electrode microstructures. Journal of Microscopy, 2016, 263, 280-292.	0.8	57
135	Modelling particle scale leach kinetics based on X-ray computed micro-tomography images. Hydrometallurgy, 2016, 162, 25-36.	1.8	34
136	Synchrotron quantification of ultrasound cavitation and bubble dynamics in Al-10Cu melts. Ultrasonics Sonochemistry, 2016, 31, 355-361.	3.8	68
137	4D synchrotron X-ray tomographic quantification of the transition from cellular to dendrite growth during directional solidification. Acta Materialia, 2016, 117, 160-169.	3.8	98
138	High-Density Protein Loading on Hierarchically Porous Layered Double Hydroxide Composites with a Rational Mesostructure. Langmuir, 2016, 32, 8826-8833.	1.6	18
139	Fast synchrotron X-ray tomographic quantification of dendrite evolution during the solidification of Mg Sn alloys. Acta Materialia, 2016, 118, 260-269.	3.8	67
140	Quantifying Bulk Electrode Strain and Material Displacement within Lithium Batteries via High-Speed Operando Tomography and Digital Volume Correlation. Advanced Science, 2016, 3, 1500332.	5.6	66
141	Endochondral Growth Defect and Deployment of Transient Chondrocyte Behaviors Underlie Osteoarthritis Onset in a Natural Murine Model. Arthritis and Rheumatology, 2016, 68, 880-891.	2.9	37
142	Multi-scale quantification of leaching performance using X-ray tomography. Hydrometallurgy, 2016, 164, 265-277.	1.8	30
143	Anomalous Î±-Mg Dendrite Growth During Directional Solidification of a Mg-Zn Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 4368-4373.	1.1	14
144	In situ observation of mechanical damage within a SiC-SiC ceramic matrix composite. Journal of Nuclear Materials, 2016, 481, 13-23.	1.3	67

#	ARTICLE	IF	CITATIONS
145	Diversification of MgO//Mg interfacial crystal orientations during oxidation: A density functional theory study. <i>Journal of Alloys and Compounds</i> , 2016, 688, 1233-1240.	2.8	10
146	The Use of In Situ X-ray Imaging Methods in the Research and Development of Magnesium-Based Grain-Refined and Nanocomposite Materials. <i>Jom</i> , 2016, 68, 3042-3050.	0.9	9
147	Permeability and acoustic velocity controlling factors determined from x-ray tomography images of carbonate rocks. <i>AAPG Bulletin</i> , 2016, 100, 1289-1309.	0.7	24
148	The dynamic nature of crystal growth in pores. <i>Scientific Reports</i> , 2016, 6, 33086.	1.6	54
149	Compressive Strength of Bioactive Sol-Gel Glass Foam Scaffolds. <i>International Journal of Applied Glass Science</i> , 2016, 7, 229-237.	1.0	26
150	Elucidation of differential mineralisation on native and regenerated silk matrices. <i>Materials Science and Engineering C</i> , 2016, 68, 663-674.	3.8	31
151	A correlative imaging based methodology for accurate quantitative assessment of bone formation in additive manufactured implants. <i>Journal of Materials Science: Materials in Medicine</i> , 2016, 27, 112.	1.7	15
152	Synchrotron analysis of toughness anomalies in nanostructured bainite. <i>Acta Materialia</i> , 2016, 105, 52-58.	3.8	17
153	Synchrotron radiographic studies of ultrasonic melt processing of metal matrix nano composites. <i>Materials Letters</i> , 2016, 164, 484-487.	1.3	40
154	Novel 3D centimetre-to nano-scale quantification of an organic-rich mudstone: The Carboniferous Bowland Shale, Northern England. <i>Marine and Petroleum Geology</i> , 2016, 72, 193-205.	1.5	115
155	Time-resolved synchrotron tomographic quantification of deformation during indentation of an equiaxed semi-solid granular alloy. <i>Acta Materialia</i> , 2016, 105, 338-346.	3.8	40
156	Structure and Transport in Coatings from Multiscale Computed Tomography of Coatings—New Perspectives for Electrochemical Impedance Spectroscopy Modeling?. <i>Electrochimica Acta</i> , 2016, 202, 243-252.	2.6	9
157	Which wets TiB <sub>2</sub> inoculant particles: Al or Al <sub>3</sub> Ti?. <i>Journal of Alloys and Compounds</i> , 2016, 664, 460-468.	2.8	44
158	In Situ Synchrotron Radiography and Spectrum Analysis of Transient Cavitation Bubbles in Molten Aluminium Alloy. <i>Physics Procedia</i> , 2015, 70, 841-845.	1.2	36
159	From Digital Outcrops to Digital Rocks - Multiscale Characterization of Structural Heterogeneity Within Porous Sandstones. , 2015, , .		1
160	Investigating the effect of thermal gradients on stress in solid oxide fuel cell anodes using combined synchrotron radiation and thermal imaging. <i>Journal of Power Sources</i> , 2015, 288, 473-481.	4.0	33
161	3D experimental investigation of velocity-permeability controlling factors in carbonates rocks. , 2015, , .		1
162	In-Situ Examination of Microstructural Changes within a Lithium-Ion Battery Electrode Using Synchrotron X-ray Microtomography. <i>ECS Transactions</i> , 2015, 69, 81-85.	0.3	8

#	ARTICLE	IF	CITATIONS
163	Employing temporal self-similarity across the entire time domain in computed tomography reconstruction. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2015, 373, 20140389.	1.6	19
164	Failure modes in high strength and stiffness to weight scaffolds produced by Selective Laser Melting. <i>Materials &amp; Design</i> , 2015, 67, 501-508.	5.1	76
165	Influence of processing conditions on strut structure and compressive properties of cellular lattice structures fabricated by selective laser melting. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 628, 188-197.	2.6	289
166	Quantifying and minimising systematic and random errors in X-ray micro-tomography based volume measurements. <i>Computers and Geosciences</i> , 2015, 77, 1-7.	2.0	39
167	Synchrotron X-ray Tomographic Quantification of Deformation Induced Strain Localisation in Semi-solid Al-15wt.%Cu. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 84, 012079.	0.3	4
168	Time-resolved synchrotron tomographic quantification of deformation-induced flow in a semi-solid equiaxed dendritic Al-Cu alloy. <i>Scripta Materialia</i> , 2015, 103, 69-72.	2.6	23
169	Quantitative characterization of porosity and determination of elastic modulus for sintered micro-silver joints. <i>Journal of Materials Processing Technology</i> , 2015, 225, 19-23.	3.1	68
170	Thermal Gradients in Solid Oxide Fuel Cell Anodes: X-Ray Diffraction, Thermal Imaging and Model Prediction. <i>ECS Transactions</i> , 2015, 68, 1053-1067.	0.3	2
171	In situ observation and analysis of ultrasonic capillary effect in molten aluminium. <i>Ultrasonics Sonochemistry</i> , 2015, 27, 72-80.	3.8	83
172	First-principles calculation of Mg/MgO interfacial free energies. <i>Journal of Alloys and Compounds</i> , 2015, 650, 228-238.	2.8	26
173	A 4-D dataset for validation of crystal growth in a complex three-phase material, ice cream. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 84, 012076.	0.3	6
174	An Iterative CT Reconstruction Algorithm for Fast Fluid Flow Imaging. <i>IEEE Transactions on Image Processing</i> , 2015, 24, 4446-4458.	6.0	39
175	Characterisation of short fatigue cracks in titanium alloy IMI 834 using X-ray microtomography. <i>Acta Materialia</i> , 2015, 99, 49-62.	3.8	44
176	Highly flexible silica/chitosan hybrid scaffolds with oriented pores for tissue regeneration. <i>Journal of Materials Chemistry B</i> , 2015, 3, 7560-7576.	2.9	78
177	Transgranular liquation cracking of grains in the semi-solid state. <i>Nature Communications</i> , 2015, 6, 8300.	5.8	72
178	Three-dimensional characterization of electrodeposited lithium microstructures using synchrotron X-ray phase contrast imaging. <i>Chemical Communications</i> , 2015, 51, 266-268.	2.2	133
179	Yield behavior beneath hardness indentations in ductile metals, measured by three-dimensional computed X-ray tomography and digital volume correlation. <i>Acta Materialia</i> , 2015, 82, 468-482.	3.8	67
180	4D-CT reconstruction with unified spatial-temporal patch-based regularization. <i>Inverse Problems and Imaging</i> , 2015, 9, 447-467.	0.6	30

#	ARTICLE	IF	CITATIONS
181	Influence of a Slow Rotating Magnetic Field in Thermoelectric Magneto-hydrodynamic Processing of Alloys. <i>ISIJ International</i> , 2014, 54, 1283-1287.	0.6	10
182	In situ microtensile testing and X-ray microtomography-based finite element modelling of open-cell metal foam struts and sandwich panels. <i>Journal of Strain Analysis for Engineering Design</i> , 2014, 49, 592-606.	1.0	12
183	In-Operando X-ray Tomography Study of Lithiation Induced Delamination of Si Based Anodes for Lithium-Ion Batteries. <i>ECS Electrochemistry Letters</i> , 2014, 3, A76-A78.	1.9	60
184	Non-uniform temperature distribution in Li-ion batteries during discharge – A combined thermal imaging, X-ray micro-tomography and electrochemical impedance approach. <i>Journal of Power Sources</i> , 2014, 252, 51-57.	4.0	108
185	Modeling of time dependent localized flow shear stress and its impact on cellular growth within additive manufactured titanium implants. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2014, 102, 1689-1699.	1.6	19
186	Silica-gelatin hybrids for tissue regeneration: inter-relationships between the process variables. <i>Journal of Sol-Gel Science and Technology</i> , 2014, 69, 288-298.	1.1	61
187	Influence of Fe-rich intermetallics on solidification defects in Al-Si-Cu alloys. <i>Acta Materialia</i> , 2014, 68, 42-51.	3.8	127
188	Lithiation-Induced Dilatation Mapping in a Lithium-Ion Battery Electrode by 3D X-Ray Microscopy and Digital Volume Correlation. <i>Advanced Energy Materials</i> , 2014, 4, 1300506.	10.2	89
189	Monitoring the Magmas Fuelling Volcanic Eruptions in Near-real-time Using X-ray Micro-computed Tomography. <i>Journal of Petrology</i> , 2014, 55, 671-684.	1.1	23
190	Additions and corrections for <i>Journal of Materials Chemistry B</i> published 11th November 2013 to 10th June 2014. <i>Journal of Materials Chemistry B</i> , 2014, 2, 5478.	2.9	1
191	The application of multiscale quasi 4D CT to the study of SrCrO <sub>4</sub> distributions and the development of porous networks in epoxy-based primer coatings. <i>Progress in Organic Coatings</i> , 2014, 77, 1946-1956.	1.9	31
192	Revelation of Intertwining Organic and Inorganic Fractal Structures in Polymer Coatings. <i>Advanced Materials</i> , 2014, 26, 4504-4508.	11.1	37
193	Chemical characterisation and fabrication of chitosan-silica hybrid scaffolds with 3-glycidoxypropyl trimethoxysilane. <i>Journal of Materials Chemistry B</i> , 2014, 2, 668-680.	2.9	109
194	A novel technique to incorporate structural prior information into multi-modal tomographic reconstruction. <i>Inverse Problems</i> , 2014, 30, 065004.	1.0	19
195	Revealing the micromechanisms behind semi-solid metal deformation with time-resolved X-ray tomography. <i>Nature Communications</i> , 2014, 5, 4464.	5.8	94
196	In situ quantification of the nucleation and growth of Fe-rich intermetallics during Al alloy solidification. <i>Acta Materialia</i> , 2014, 79, 292-303.	3.8	102
197	3-D microstructural model of freckle formation validated using in situ experiments. <i>Acta Materialia</i> , 2014, 79, 168-180.	3.8	95
198	Pore behaviour during semi-solid alloy compression: Insights into defect creation under pressure. <i>Scripta Materialia</i> , 2014, 89, 73-76.	2.6	16

#	ARTICLE	IF	CITATIONS
199	Multimodal Image Reconstruction Using Supplementary Structural Information in Total Variation Regularization. <i>Sensing and Imaging</i> , 2014, 15, 97.	1.0	7
200	Looking into continuous casting mould. <i>Ironmaking and Steelmaking</i> , 2014, 41, 242-249.	1.1	35
201	In situ synchrotron tomographic quantification of granular and intragranular deformation during semi-solid compression of an equiaxed dendritic Al-Cu alloy. <i>Acta Materialia</i> , 2014, 76, 371-380.	3.8	84
202	Coupling in situ synchrotron X-ray tomographic microscopy and numerical simulation to quantify the influence of intermetallic formation on permeability in aluminium-silicon-copper alloys. <i>Acta Materialia</i> , 2014, 64, 316-325.	3.8	63
203	STR/ORT mice exhibit an inherent endochondral growth defect and redeploy transient chondrocyte behaviours prior to osteoarthritis onset. <i>Osteoarthritis and Cartilage</i> , 2014, 22, S357.	0.6	0
204	The application of phase contrast X-ray techniques for imaging Li-ion battery electrodes. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2014, 324, 118-123.	0.6	73
205	Simulation of diffusion-limited lateral growth of dendrites during solidification via liquid metal cooling. <i>Acta Materialia</i> , 2014, 69, 47-59.	3.8	28
206	Additive manufactured porous titanium structures: Through-process quantification of pore and strut networks. <i>Journal of Materials Processing Technology</i> , 2014, 214, 2706-2715.	3.1	109
207	Image based modelling of microstructural heterogeneity in LiFePO <sub>4</sub> electrodes for Li-ion batteries. <i>Journal of Power Sources</i> , 2014, 247, 1033-1039.	4.0	162
208	Cotton-wool-like bioactive glasses for bone regeneration. <i>Acta Biomaterialia</i> , 2014, 10, 3733-3746.	4.1	95
209	Thermal characterisation of ceramic/metal joining techniques for fusion applications using X-ray tomography. <i>Fusion Engineering and Design</i> , 2014, 89, 826-836.	1.0	13
210	A novel high-temperature furnace for combined in situ synchrotron X-ray diffraction and infrared thermal imaging to investigate the effects of thermal gradients upon the structure of ceramic materials. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 1134-1139.	1.0	9
211	X-Ray Tomography and Small-Angle Neutron Scattering Characterization of Nano-Composites: Static and In Situ Experiments. , 2014, , 1389-1393.		0
212	X-ray computed tomography of the anterior cruciate ligament and patellar tendon. <i>Muscles, Ligaments and Tendons Journal</i> , 2014, 4, 238-44.	0.1	17
213	Hierarchical tailoring of strut architecture to control permeability of additive manufactured titanium implants. <i>Materials Science and Engineering C</i> , 2013, 33, 4055-4062.	3.8	83
214	The Interdependence model of grain nucleation: A numerical analysis of the Nucleation-Free Zone. <i>Acta Materialia</i> , 2013, 61, 5914-5927.	3.8	60
215	A Multiscale 3D Model of the Vacuum Arc Remelting Process. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 5365-5376.	1.1	34
216	Bioactive Glass Foam Scaffolds are Remodelled by Osteoclasts and Support the Formation of Mineralized Matrix and Vascular Networks In Vitro. <i>Advanced Healthcare Materials</i> , 2013, 2, 490-499.	3.9	50

#	ARTICLE	IF	CITATIONS
217	Synchrotron Tomographic Characterization of Damage Evolution During Aluminum Alloy Solidification. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 5389-5395.	1.1	31
218	A new parameter for modelling three-dimensional damage evolution validated by synchrotron tomography. <i>Acta Materialia</i> , 2013, 61, 7616-7623.	3.8	19
219	Preconditioned 70S30C bioactive glass foams promote osteogenesis in vivo. <i>Acta Biomaterialia</i> , 2013, 9, 9169-9182.	4.1	116
220	Quantifying the evolution of soil fabric during shearing using directional parameters. <i>Geotechnique</i> , 2013, 63, 487-499.	2.2	130
221	Non-invasive imaging of the crystalline structure within a human tooth. <i>Acta Biomaterialia</i> , 2013, 9, 8337-8345.	4.1	29
222	Quantifying the evolution of soil fabric during shearing using scalar parameters. <i>Geotechnique</i> , 2013, 63, 818-829.	2.2	79
223	Thermal imaging and stress analysis for predicting the behaviour and long-term performance of flare tips. <i>Journal of Strain Analysis for Engineering Design</i> , 2013, 48, 103-111.	1.0	3
224	Review: The "butterfly effect" in continuous casting. <i>Ironmaking and Steelmaking</i> , 2012, 39, 244-253.	1.1	44
225	Industrial application of a numerical model to simulate lubrication, mould oscillation, solidification and defect formation during continuous casting. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 33, 012013.	0.3	2
226	A fast-converging iterative method for X-ray in-line phase contrast tomography. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	12
227	Quantifying damage accumulation during the hot deformation of free-cutting steels using ultra-fast synchrotron tomography. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 33, 012038.	0.3	7
228	Bioactive silica-poly( $\gamma$ -glutamic acid) hybrids for bone regeneration: effect of covalent coupling on dissolution and mechanical properties and fabrication of porous scaffolds. <i>Soft Matter</i> , 2012, 8, 4822.	1.2	68
229	Non-invasive characterization of particle morphology of natural sands. <i>Soils and Foundations</i> , 2012, 52, 712-722.	1.3	194
230	Some Insights into Mechanisms Involved in Continuous Casting. <i>High Temperature Materials and Processes</i> , 2012, 31, .	0.6	7
231	Characterizing the hierarchical structures of bioactive sol-gel silicate glass and hybrid scaffolds for bone regeneration. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2012, 370, 1422-1443.	1.6	115
232	A new mechanism for freckle initiation based on microstructural level simulation. <i>Acta Materialia</i> , 2012, 60, 4917-4926.	3.8	119
233	Globule-Globule Interactions during Deformation in Semi-Solid Al-Cu Using Time-Resolved X-Ray Tomography. <i>Solid State Phenomena</i> , 2012, 192-193, 179-184.	0.3	0
234	In situ, time-resolved tomography for validating models of deformation in semi-solid alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012, 33, 012037.	0.3	6

#	ARTICLE	IF	CITATIONS
235	<i>In Situ</i> Observation of Cracks in Frozen Soil using Synchrotron Tomography. <i>Permafrost and Periglacial Processes</i> , 2012, 23, 170-176.	1.5	31
236	Quantitative 3D Characterization of Solidification Structure and Defect Evolution in Al Alloys. <i>Jom</i> , 2012, 64, 89-95.	0.9	47
237	A Unified Mechanism for the Formation of Oscillation Marks. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2012, 43, 109-122.	1.0	71
238	Stress analysis of solid oxide fuel cell anode microstructure reconstructed from focused ion beam tomography. <i>Journal of Power Sources</i> , 2011, 196, 9018-9021.	4.0	32
239	The influence of nanoscale microstructural variations on the pellet scale flow properties of hierarchical porous catalytic structures using multiscale 3D imaging. <i>Chemical Engineering Science</i> , 2011, 66, 5804-5812.	1.9	30
240	A Solidification Approach to Correcting for the Effect of Impurities in Fixed Points. <i>International Journal of Thermophysics</i> , 2011, 32, 1589-1601.	1.0	12
241	Evaluation of 3-D bioactive glass scaffolds dissolution in a perfusion flow system with X-ray microtomography. <i>Acta Biomaterialia</i> , 2011, 7, 2637-2643.	4.1	55
242	In situ X-ray observation of semi-solid deformation and failure in Al-Cu alloys. <i>Acta Materialia</i> , 2011, 59, 1436-1444.	3.8	72
243	Characterization of hierarchical pore structures in ceramics using multiscale tomography. <i>Acta Materialia</i> , 2011, 59, 2109-2120.	3.8	53
244	Melt-derived bioactive glass scaffolds produced by a gel-cast foaming technique. <i>Acta Biomaterialia</i> , 2011, 7, 1807-1816.	4.1	140
245	Investigation of lithium-ion polymer battery cell failure using X-ray computed tomography. <i>Electrochemistry Communications</i> , 2011, 13, 608-610.	2.3	100
246	A New Approach for Modelling Slag Infiltration and Solidification in a Continuous Casting Mould. <i>ISIJ International</i> , 2010, 50, 1797-1804.	0.6	52
247	Explicit Modelling of Slag Infiltration and Shell Formation during Mould Oscillation in Continuous Casting. <i>ISIJ International</i> , 2010, 50, 425-434.	0.6	69
248	Heterogeneous nucleation of solid Al from the melt by $Al$ Molecular dynamics simulations. <i>Physical Review B</i> , 2010, 82, .	1.1	39
249	Synchrotron X-ray microtomography for assessment of bone tissue scaffolds. <i>Journal of Materials Science: Materials in Medicine</i> , 2010, 21, 847-853.	1.7	39
250	Characterization of the deformation behavior of intermediate porosity interconnected Ti foams using micro-computed tomography and direct finite element modeling. <i>Acta Biomaterialia</i> , 2010, 6, 2342-2351.	4.1	69
251	Hierarchically structured titanium foams for tissue scaffold applications. <i>Acta Biomaterialia</i> , 2010, 6, 4596-4604.	4.1	53
252	Quantitation of Microcomputed Tomography-Imaged Ocular Microvasculature. <i>Microcirculation</i> , 2010, 17, 59-68.	1.0	15



#	ARTICLE	IF	CITATIONS
253	Multiscale modeling of the influence of Fe content in a Al–Si–Cu alloy on the size distribution of intermetallic phases and micropores. <i>Journal of Applied Physics</i> , 2010, 107, 061804.	1.1	25
254	Dendritic solidification under natural and forced convection in binary alloys: 2D versus 3D simulation. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2010, 18, 055008.	0.8	113
255	Rare earth oxides as nanoadditives in 3-D nanocomposite scaffolds for bone regeneration. <i>Journal of Materials Chemistry</i> , 2010, 20, 8912.	6.7	126
256	Titanium foams for biomedical applications: a review. <i>Materials Technology</i> , 2010, 25, 127-136.	1.5	131
257	Bioactive glass scaffolds for bone regeneration and their hierarchical characterisation. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2010, 224, 1373-1387.	1.0	102
258	Heterogeneous nucleation of solid Al from the melt by $TiB_2$ . <i>Physical Review B</i> , 2010, 82, .	1.1	66
259	Solid-liquid interface free energy through metadynamics simulations. <i>Physical Review B</i> , 2010, 81, .	1.1	84
260	On the diffusion behaviour of Os in the binary Ni–Os system. <i>Materials Science and Technology</i> , 2010, 26, 1173-1176.	0.8	6
261	Microstructural Simulations of the Influence of Solidification Velocity on Freckle Initiation during Directional Solidification. <i>ISIJ International</i> , 2010, 50, 1814-1818.	0.6	16
262	Modeling of Porosity Formation during Solidification. , 2010, , 253-263.		1
263	Numerical simulation of the effect of fluid flow on solute distribution and dendritic morphology. <i>International Journal of Cast Metals Research</i> , 2009, 22, 204-207.	0.5	20
264	Prediction of solidification behaviour via microstructure models based on granular structures. <i>International Journal of Cast Metals Research</i> , 2009, 22, 240-243.	0.5	15
265	Predicting the constitutive behavior of semi-solids via a direct finite element simulation: application to AA5182. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2009, 17, 055011.	0.8	20
266	The kinetics of Fe-rich intermetallic formation in aluminium alloys: In situ observation. <i>Scripta Materialia</i> , 2009, 60, 516-519.	2.6	81
267	An X-ray microtomographic and finite element modeling approach for the prediction of semi-solid deformation behaviour in Al–Cu alloys. <i>Acta Materialia</i> , 2009, 57, 5554-5562.	3.8	37
268	Quantifying the 3D macrostructure of tissue scaffolds. <i>Journal of Materials Science: Materials in Medicine</i> , 2009, 20, 463-471.	1.7	75
269	Liquid Metal Processing and Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2009, 40, 247-247.	1.0	1
270	Micro-CT characterization of structural features and deformation behavior of fly ash/aluminum syntactic foam. <i>Acta Materialia</i> , 2009, 57, 3003-3011.	3.8	84



#	ARTICLE	IF	CITATIONS
271	Quantification of the interaction within defect populations on fatigue behavior in an aluminum alloy. <i>Acta Materialia</i> , 2009, 57, 3539-3548.	3.8	98
272	Characterization of the structure and permeability of titanium foams for spinal fusion devices. <i>Acta Biomaterialia</i> , 2009, 5, 477-487.	4.1	79
273	Malcolm McLean. <i>Materials Science and Technology</i> , 2009, 25, 127-128.	0.8	0
274	MULTISCALE MODELING OF THE VACUUM ARC REMELTING PROCESS FOR THE PREDICTION ON MICROSTRUCTURE FORMATION. <i>International Journal of Modern Physics B</i> , 2009, 23, 1584-1590.	1.0	20
275	Microtomographic characterization of columnar Al-Cu dendrites for fluid flow and flow stress determination. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 494, 3-9.	2.6	29
276	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
277	A new methodology for measurement of semi-solid constitutive behavior and its application to examination of as-cast porosity and hot tearing in aluminum alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 491, 237-247.	2.6	58
278	A three-phase simulation of the effect of microstructural features on semi-solid tensile deformation. <i>Acta Materialia</i> , 2008, 56, 4328-4338.	3.8	58
279	A comparison of three different micro-tomography systems for accurate determination of microvascular parameters. <i>Proceedings of SPIE</i> , 2008, , .	0.8	2
280	Solid-liquid phase equilibria from free-energy perturbation calculations. <i>Physical Review B</i> , 2008, 78, .	1.1	5
281	Simulating tortuous 3D morphology of microporosity formed during solidification of Al-Si-Cu alloys. <i>International Journal of Cast Metals Research</i> , 2007, 20, 151-158.	0.5	28
282	The Effect of Mould Flux Properties on Thermo-mechanical Behaviour during Billet Continuous Casting. <i>ISIJ International</i> , 2007, 47, 95-104.	0.6	44
283	Controlled Microchannelling in Dense Collagen Scaffolds by Soluble Phosphate Glass Fibers. <i>Biomacromolecules</i> , 2007, 8, 543-551.	2.6	103
284	Evolution of pore morphology and distribution during the homogenization of direct chill cast Al-Mg alloys. <i>Acta Materialia</i> , 2007, 55, 285-293.	3.8	40
285	A through process model of the impact of in-service loading, residual stress, and microstructure on the final fatigue life of an A356 automotive wheel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007, 460-461, 20-30.	2.6	41
286	Modeling the investment casting of a titanium crown. <i>Dental Materials</i> , 2007, 23, 60-70.	1.6	20
287	John D. Hunt Symposium on Solidification Modeling and Microstructure Formation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007, 38, 1377-1377.	1.1	1
288	Simulating the Residual Stress in an A356 Automotive Wheel and Its Impact on Fatigue Life. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2007, 38, 505-515.	1.0	30

#	ARTICLE	IF	CITATIONS
289	Quantification of Microsegregation in Cast Al-Si-Cu Alloys. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2007, 38, 557-566.	1.0	17
290	Simulation of Aluminum Shape Casting Processing: From Alloy Design to Mechanical Properties. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2007, 38, 503-503.	1.0	0
291	Non-destructive quantitative 3D analysis for the optimisation of tissue scaffolds. Biomaterials, 2007, 28, 1404-1413.	5.7	178
292	Hierarchical porous materials for tissue engineering. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2006, 364, 263-281.	1.6	150
293	Inclusion Behaviour During Vacuum Arc Remelting of Nickel Based Superalloys. , 2006, , 121-128.		3
294	Pore evolution in a direct chill cast Al-6wt.% Mg alloy during hot rolling. Acta Materialia, 2006, 54, 5185-5194.	3.8	29
295	Statistical modeling of microstructure and defect population effects on the fatigue performance of cast A356-T6 automotive components. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 432, 59-68.	2.6	69
296	Simulation of the mechanical properties of an aluminum matrix composite using X-ray microtomography. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 551-558.	1.1	31
297	Microstructure-based fatigue life prediction for cast A356-T6 aluminum-silicon alloys. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2006, 37, 301-311.	1.0	62
298	X-ray micro-tomographic observations of hot tear damage in an Al-Mg commercial alloy. Scripta Materialia, 2006, 55, 489-492.	2.6	41
299	X-ray Microtomographic Characterisation of Porosity and its Influence on Fatigue Crack Growth. Advanced Engineering Materials, 2006, 8, 476-479.	1.6	27
300	Characterization of Lightweight Graphite Based Composites Using X-Ray Microtomography. Advanced Engineering Materials, 2006, 8, 491-495.	1.6	10
301	X-ray microtomographic characterisation of pore evolution during homogenisation and rolling of Al-6Mg. Materials Science and Technology, 2006, 22, 1087-1093.	0.8	10
302	Glass ceramic foams from coal ash and waste glass: production and characterisation. Advances in Applied Ceramics, 2006, 105, 32-39.	0.6	85
303	A Validated Through Process Model to Predict the Fatigue Life of a Cast A356 Automotive Wheel. Materials Science Forum, 2006, 519-521, 1777-1782.	0.3	0
304	Simulation of stray grain formation during single crystal seed melt-back and initial withdrawal in the Ni-base superalloy CMSX4. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 413-414, 571-577.	2.6	32
305	Investigation of the latent heat associated with the solidification of an Al-TiB <sub>2</sub> composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 391, 427-432.	2.6	6
306	Multiscale modeling of titanium investment cast dental prostheses. Materials Science and Engineering C, 2005, 25, 255-262.	3.8	4

#	ARTICLE	IF	CITATIONS
307	Simulation of the columnar-to-equiaxed transition in directionally solidified Al-Cu alloys. <i>Acta Materialia</i> , 2005, 53, 659-668.	3.8	258
308	Modeling the surface contamination of dental titanium investment castings. <i>Dental Materials</i> , 2005, 21, 178-186.	1.6	24
309	Optimisation of a cast one-step forging operation by virtual processing. <i>Materials &amp; Design</i> , 2005, 26, 29-36.	5.1	3
310	Stray grain formation in the seed region of single-crystal turbine blades. <i>Jom</i> , 2005, 57, 40-44.	0.9	25
311	Integrated modeling for the manufacture of Ni-based superalloy discs from solidification to final heat treatment. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2005, 36, 2493-2504.	1.1	17
312	A technique for characterizing microsegregation in multicomponent alloys and its application to single-crystal superalloy castings. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2005, 36, 2191-2204.	1.1	127
313	Seeding of single-crystal superalloys—Role of constitutional undercooling and primary dendrite orientation on stray-grain nucleation and growth. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2005, 36, 657-666.	1.0	59
314	Flows of inelastic non-Newtonian fluids through arrays of aligned cylinders. Part 1. Creeping flows. <i>Journal of Engineering Mathematics</i> , 2005, 51, 57-80.	0.6	23
315	Flows of inelastic non-Newtonian fluids through arrays of aligned cylinders. Part 2. Inertial effects for square arrays. <i>Journal of Engineering Mathematics</i> , 2005, 51, 81-97.	0.6	12
316	Integrated model for tracking defects through full manufacturing route of aerospace discs. <i>Materials Science and Technology</i> , 2005, 21, 437-444.	0.8	8
317	Effect of clustering on particle pushing and solidification behaviour in TiB <sub>2</sub> reinforced aluminium PMMCs. <i>Composites Part A: Applied Science and Manufacturing</i> , 2005, 36, 747-763.	3.8	165
318	Investigation of the clustering behaviour of titanium diboride particles in aluminium. <i>Composites Part A: Applied Science and Manufacturing</i> , 2005, 36, 1177-1187.	3.8	81
319	The effect of porosity on the fatigue life of cast aluminium-silicon alloys*. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2004, 27, 559-570.	1.7	135
320	The factors affecting powder consumption of mould fluxes. <i>Scandinavian Journal of Metallurgy</i> , 2004, 33, 85-91.	0.3	32
321	Analysis of pore interconnectivity in bioactive glass foams using X-ray microtomography. <i>Scripta Materialia</i> , 2004, 51, 1029-1033.	2.6	121
322	Liquid metal processing and casting. <i>Journal of Materials Science</i> , 2004, 39, 7133.	1.7	4
323	Effect of process parameters on grain structure formation during VAR of INCONEL alloy 718. <i>Journal of Materials Science</i> , 2004, 39, 7175-7182.	1.7	21
324	Multiscale modelling of microstructure formation during vacuum arc remelting of titanium 6-4. <i>Journal of Materials Science</i> , 2004, 39, 7193-7197.	1.7	24

#	ARTICLE	IF	CITATIONS
325	Simulation of equiaxed growth ahead of an advancing columnar front in directionally solidified Ni-based superalloys. <i>Journal of Materials Science</i> , 2004, 39, 7207-7212.	1.7	23
326	Integrated modeling for the manufacture of aerospace discs: Grain structure evolution. <i>Jom</i> , 2004, 56, 72-78.	0.9	22
327	A through-process model of an A356 brake caliper for fatigue life prediction. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2004, 35, 3275-3288.	1.1	21
328	Multiscale modelling of solidification microstructures, including microsegregation and microporosity, in an Al-Cu alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 365, 57-65.	2.6	105
329	A micro-cell model of the effect of microstructure and defects on fatigue resistance in cast aluminum alloys. <i>Acta Materialia</i> , 2004, 52, 5435-5449.	3.8	111
330	Dissolution of ZrO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , MgO and MgAl <sub>2</sub> O <sub>4</sub> Particles in a B <sub>2</sub> O <sub>3</sub> Containing Commercial Fluoride-free Mould Slag. <i>ISIJ International</i> , 2004, 44, 836-845.	0.6	74
331	Microscale simulation of stray grain formation in investment cast turbine blades. , 2004, 386, 129-129.		23
332	Welding of Single Crystal Superalloy CMSX-4: Experiments and Modeling. , 2004, , .		9
333	Simulation of the Thermal History Dependence of Primary Spacing During Directional Solidification. , 2004, , .		2
334	The Sensitivity of Investment Casting Simulations to the Accuracy of Thermophysical Property Values. , 2004, , .		5
335	Simulation of dendritic growth in the platform region of single crystal superalloy turbine blades. <i>Journal of Materials Science</i> , 2003, 38, 4385-4391.	1.7	41
336	X-ray-based measurement of composition during electron beam melting of AISI 316 stainless steel: Part I. Experimental setup and processing of spectra. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003, 34, 851-861.	1.1	1
337	X-ray-based measurement of composition during electron beam melting of AISI 316 stainless steel: Part II. Evaporative processes and simulation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003, 34, 863-877.	1.1	4
338	Scatter in fatigue life due to effects of porosity in cast A356-T6 aluminum-silicon alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003, 34, 1879-1890.	1.1	155
339	X-ray-based measurement of composition during electron beam melting of AISI 316 stainless steel: Part I. Experimental setup and processing of spectra. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003, 34, 851-861.	1.1	6
340	X-ray-based measurement of composition during electron beam melting of AISI 316 stainless steel: Part II. Evaporative processes and simulation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003, 34, 863-877.	1.1	3
341	Creeping flows of power-law fluids through periodic arrays of elliptical cylinders. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2003, 111, 211-228.	1.0	36
342	Multiscale modeling for the prediction of casting defects in investment cast aluminum alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 343, 290-300.	2.6	27

#	ARTICLE	IF	CITATIONS
343	A model of solidification microstructures in nickel-based superalloys: predicting primary dendrite spacing selection. <i>Acta Materialia</i> , 2003, 51, 2971-2987.	3.8	358
344	Simulation of the three-dimensional morphology of solidification porosity in an aluminium-silicon alloy. <i>Acta Materialia</i> , 2003, 51, 5447-5466.	3.8	109
345	Direct semi-solid forming of a powder Si-Al PMMC: flow analysis. <i>Composites Part A: Applied Science and Manufacturing</i> , 2003, 34, 333-339.	3.8	22
346	Scalable, continuous variable, cellular automaton model for grain growth during homogenisation of vacuum arc remelted Inconel* 718. <i>Materials Science and Technology</i> , 2003, 19, 859-865.	0.8	7
347	Centrifugal casting of aluminium containing in situ formed TiB <sub>2</sub> . <i>Materials Science and Technology</i> , 2003, 19, 1215-1219.	0.8	20
348	A microstructural model of competitive growth in nickel based superalloys. <i>International Journal of Cast Metals Research</i> , 2003, 15, 269-271.	0.5	10
349	Microstructural modelling for the prediction of tensile strength and elongation in automotive aluminium alloy castings. <i>International Journal of Cast Metals Research</i> , 2003, 15, 325-329.	0.5	4
350	Latent Heat Evolution from TiB <sub>2</sub> Particulate Reinforced Aluminium Alloys. <i>Materials Science Forum</i> , 2002, 396-402, 259-264.	0.3	5
351	Micro-Macro Modelling of Microstructure and Microporosity in Al-Si-Cu Alloys. <i>Materials Science Forum</i> , 2002, 396-402, 661-666.	0.3	1
352	A model for resin viscosity during cure in the resin transfer moulding process. <i>Composites Part A: Applied Science and Manufacturing</i> , 2002, 33, 1497-1503.	3.8	64
353	Application of X-ray tomography to quantify the distribution of TiB <sub>2</sub> particulate in aluminium. <i>Scripta Materialia</i> , 2002, 46, 25-29.	2.6	31
354	Numerical simulation of dendrite white spot formation during vacuum arc remelting of INCONEL718. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002, 33, 443-454.	1.1	16
355	Tree-ring formation during vacuum arc remelting of INCONEL 718: Part I. Experimental investigation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002, 33, 1795-1804.	1.1	28
356	Tree-ring formation during vacuum arc remelting of INCONEL 718: Part II. Mathematical modeling. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002, 33, 1805-1815.	1.1	39
357	A three-phase model of hydrogen pore formation during the equiaxed dendritic solidification of aluminum-silicon alloys. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2002, 33, 209-221.	1.0	46
358	Modeling of porosity formation in direct chill cast aluminium-magnesium alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002, 328, 213-222.	2.6	75
359	Modeling microporosity in aluminium-silicon alloys: a review. <i>Journal of Light Metals</i> , 2001, 1, 15-30.	0.8	222
360	Hydrogen porosity in directionally solidified aluminium-copper alloys: a mathematical model. <i>Acta Materialia</i> , 2001, 49, 1383-1398.	3.8	136

#	ARTICLE	IF	CITATIONS
361	Title is missing!. Journal of Materials Science, 2001, 36, 3423-3435.	1.7	26
362	Instrumentation and simulation of industrial steel wire rod cooling line. Materials Science and Technology, 2001, 17, 856-863.	0.8	5
363	Direct observation of the effect of strontium on porosity formation during the solidification of aluminium-silicon alloys. International Journal of Cast Metals Research, 2000, 13, 185-198.	0.5	27
364	Diffusion-controlled growth of hydrogen pores in aluminium-silicon castings: in situ observation and modelling. Acta Materialia, 2000, 48, 405-417.	3.8	127
365	SIMULATION AND CONTROL OF THE COOLING OF HOT ROLLED STEEL WIRE ROD. , 2000, , 389-396.		0
366	CONVENTIONAL VERSUS THIN SLAB CASTING: A NUMERICAL SIMULATION APPROACH FOR THE COMPARISON OF MICROSTRUCTURAL PROPERTIES. , 2000, , 381-388.		0
367	Simulation of Intrinsic Inclusion Motion and Dissolution during the Vacuum Arc Remelting of Nickel Based Superalloys. , 2000, , .		1
368	Cellular automata model for the evolution of inert gas monolayers on a calcium (111) surface. Modelling and Simulation in Materials Science and Engineering, 1999, 7, 355-367.	0.8	0
369	Equations for nucleation of hydrogen gas pores during solidification of aluminium seven weight percent silicon alloy. Scripta Materialia, 1999, 41, 1255-1259.	2.6	29
370	Surface microstructure predictions from atomistic rule set cellular automata. , 1999, , .		0
371	Modelling of Marangoni effects in electron beam melting. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1998, 356, 1027-1043.	1.6	46
372	Measuring the nucleation of hydrogen porosity during the solidification of aluminium-copper alloys. Scripta Materialia, 1997, 36, 399-404.	2.6	45
373	Morphological effects on the transverse permeability of arrays of aligned fibers. Polymer Composites, 1997, 18, 242-253.	2.3	26
374	Hydrogen porosity in directional solidified aluminium-copper alloys:in situ observation. Acta Materialia, 1997, 45, 4155-4169.	3.8	161
375	Coupled Macro-Micro Modelling of the Secondary Melting of Turbine Disc Superalloys. , 1996, , .		1
376	The Lincoln Mark VIII Cast Aluminium Suspension Control Arm (Parallel Development). , 1994, , .		3
377	Simulation of the Columnar-to-Equiaxed Transition in Alloy Solidification - The Effect of Nucleation Undercooling, Density of Nuclei in Bulk Liquid and Alloy Solidification Range on the Transition. Solid State Phenomena, 0, 139, 129-134.	0.3	14
378	Bioactive Glass Scaffolds with Hierarchical Structure and their 3D Characterization. Key Engineering Materials, 0, 441, 123-137.	0.4	2

#	ARTICLE	IF	CITATIONS
379	Improvement of the Interdependence Analytical Model through Selection of Interfacial Growth Rates during the Initial Transient. Materials Science Forum, 0, 765, 77-81.	0.3	2
380	On the Solute Diffusion Length in the Interdependence Model: Dendritic versus Non-Dendritic Interface. Materials Science Forum, 0, 828-829, 461-467.	0.3	0
381	Revisiting Models for Spheroidal Graphite Growth. Materials Science Forum, 0, 925, 118-124.	0.3	7
382	X-ray computed tomography of the anterior cruciate ligament and patellar tendon. Muscles, Ligaments and Tendons Journal, 0, , .	0.1	16
383	Pulmonary and systemic pathology in COVID-19â€™holistic pathological analyses. Deutsches A&#x0308;rzteblatt International, 0, , .	0.6	5