

Sudarsanam Babu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

269
papers

10,616
citations

57
h-index

92
g-index

286
ext. papers

12,368
ext. citations

4.1
avg, IF

6.59
L-index

#	Paper	IF	Citations
269	Tools for Alloy Design 2022 , 245-262		
268	Thermo-Mechanical Processing 2022 , 27-38		
267	Selection of Appropriate Manufacturing Processes 2022 , 3-12		
266	Tailoring plasticity mechanisms in compositionally graded hierarchical steels fabricated using additive manufacturing. <i>Scientific Reports</i> , 2021 , 11, 20112	4.9	0
265	Heterogeneous creep deformation behavior of functionally graded transition joints (GTJs). <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2021 , 65, 1633-1644	1.9	0
264	Qualification pathways for additively manufactured components for nuclear applications. <i>Journal of Nuclear Materials</i> , 2021 , 548, 152846	3.3	4
263	Influence of neutron irradiation on Al-6061 alloy produced via ultrasonic additive manufacturing. <i>Journal of Nuclear Materials</i> , 2021 , 550, 152939	3.3	3
262	An integrated manifold learning approach for high-dimensional data feature extractions and its applications to online process monitoring of additive manufacturing. <i>IISE Transactions</i> , 2021 , 1-21	3.3	3
261	Interdiffusion of Elements During Ultrasonic Additive Manufacturing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021 , 52, 1142-1157	2.3	1
260	Microstructure and properties of additively manufactured Al-Ce-Mg alloys. <i>Scientific Reports</i> , 2021 , 11, 6953	4.9	10
259	Phase transformation pathways in Ti-6Al-4V manufactured via electron beam powder bed fusion. <i>Acta Materialia</i> , 2021 , 215, 117131	8.4	5
258	Microstructure-property gradients in Ni-based superalloy (Inconel 738) additively manufactured via electron beam powder bed fusion. <i>Additive Manufacturing</i> , 2021 , 46, 102121	6.1	2
257	Role of thermo-mechanical gyrations on the β interface stability in a Ti6Al4V AM alloy. <i>Scripta Materialia</i> , 2021 , 204, 114134	5.6	2
256	Multimodal β precipitation in Inconel-738 Ni-based superalloy during electron-beam powder bed fusion additive manufacturing. <i>Journal of Materials Science</i> , 2020 , 55, 13342-13350	4.3	10
255	Correlation of Local Constitutive Properties to Global Mechanical Performance of Advanced High-Strength Steel Spot Welds. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020 , 51, 2209-2221	2.3	8
254	On the formation of spherical metastable BCC single crystal spatter particles during laser powder bed fusion. <i>Materialia</i> , 2020 , 9, 100584	3.2	4
253	Uncertainties in Finite Element Analysis of Yield Point Phenomena in Advanced High-Strength Steel Spot Welds. <i>Journal of Materials Engineering and Performance</i> , 2020 , 29, 1272-1281	1.6	0

252	Sensitivity of Thermal Predictions to Uncertain Surface Tension Data in Laser Additive Manufacturing. <i>Journal of Heat Transfer</i> , 2020 , 142,	1.8	9
251	Dynamic phase transformations in additively manufactured Ti-6Al-4V during thermo-mechanical gyrations. <i>Materialia</i> , 2020 , 14, 100883	3.2	3
250	Investigating the effect of metal powder recycling in Electron beam Powder Bed Fusion using process log data. <i>Additive Manufacturing</i> , 2020 , 32, 100994	6.1	9
249	In-Situ Monitoring for Defect Identification in Nickel Alloy Complex Geometries Fabricated by L-PBF Additive Manufacturing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020 , 51, 6528-6545	2.3	11
248	Design and Tailoring of Alloys for Additive Manufacturing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020 , 51, 6000-6019	2.3	26
247	Towards process consistency and in-situ evaluation of porosity during laser powder bed additive manufacturing. <i>Science and Technology of Welding and Joining</i> , 2020 , 25, 679-689	3.7	2
246	Effect of weld power and interfacial temperature on mechanical strength and microstructure of carbon steel 4130 fabricated by ultrasonic additive manufacturing. <i>Manufacturing Letters</i> , 2020 , 25, 64-69	4.5	5
245	The Effect of Beam Scan Strategies on the Microstructure of EBM Additively Manufactured Inconel 738. <i>Microscopy and Microanalysis</i> , 2020 , 26, 2940-2941	0.5	1
244	Investigating the Linear Thermal Expansion of Additively Manufactured Multi-Material Joining between Invar and Steel. <i>Materials</i> , 2020 , 13,	3.5	2
243	On the potential mechanisms of β to α + β decomposition in two phase titanium alloys during additive manufacturing: a combined transmission Kikuchi diffraction and 3D atom probe study. <i>Journal of Materials Science</i> , 2020 , 55, 1715-1726	4.3	12
242	Effect of preheat temperature and post-process treatment on the microstructure and mechanical properties of stainless steel 410 made via ultrasonic additive manufacturing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 769, 138457	5.3	11
241	Localized Changes of Stainless Steel Powder Characteristics During Selective Laser Melting Additive Manufacturing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019 , 50, 1582-1605	2.3	17
240	Quantitative Study on the Effect of Thermal Gradients on the Microstructure of Additively Manufactured Ti-6Al-4V Builds. <i>Microscopy and Microanalysis</i> , 2019 , 25, 2598-2599	0.5	
239	Additive manufacturing technology 2019 , 11-53		7
238	Comparison of various additive manufacturing technologies 2019 , 55-76		3
237	Microstructure and properties of additive manufacturing builds 2019 , 93-143		1
236	Metal additive manufacturing process modeling and simulation 2019 , 145-191		
235	Design for metal additive manufacturing 2019 , 193-244		2

234	Qualification for metal additive manufacturing 2019 , 245-307		1
233	Heterogeneous creep deformation in Dissimilar Metal Welds (DMWs). <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 749, 1-13	5.3	15
232	Defect Characterization Through Automated Laser Track Trace Identification in SLM Processes Using Laser Profilometer Data. <i>Journal of Materials Engineering and Performance</i> , 2019 , 28, 717-727	1.6	5
231	Microstructure evolution during near-net-shape fabrication of NiAl ₃ -TiC cermets through binder jet additive manufacturing and pressureless melt infiltration. <i>International Journal of Refractory Metals and Hard Materials</i> , 2019 , 84, 104985	4.1	8
230	Post-processing to Modify the β Phase Micro-Texture and β Phase Grain Morphology in Ti-6Al-4V Fabricated by Powder Bed Electron Beam Melting. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019 , 50, 3429-3439	2.3	13
229	Approach to qualification using E-PBF in-situ process monitoring in Ti-6Al-4V. <i>Additive Manufacturing</i> , 2019 , 28, 98-106	6.1	20
228	Ultrasonic additive manufacturing of 4130 steel using Ni interlayers** This article has been authored by UT-Battelle, LLC under Contract No. DE-AC05-00OR22725 with the U.S. Department of Energy. The United States Government retains and the publisher, by accepting the article for publication, acknowledges that the United States Government retains a non-exclusive, paid-up, Design of Graded Transition Joints Through Thermodynamic and Kinetic Modeling. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019 , 50, 2765-2783	3.7	17
227	Design of Graded Transition Joints Through Thermodynamic and Kinetic Modeling. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019 , 50, 2765-2783	2.3	4
226	Characterization of Additive Manufacturing for Process Tubing. <i>Jom</i> , 2019 , 71, 1095-1104	2.1	2
225	Cascading phase transformations in high carbon steel resulting in the formation of inverse bainite: An atomic scale investigation. <i>Scientific Reports</i> , 2019 , 9, 5597	4.9	1
224	Graded Microstructure of Additive Manufactured Ti-6Al-4V via Electron Beam Melting. <i>Microscopy and Microanalysis</i> , 2019 , 25, 498-499	0.5	
223	Microstructural Evolution of Graded Transition Joints. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019 , 50, 2201-2217	2.3	6
222	Validation of an alloy design strategy for stable Fe-Cr-Al-Nb-X ferritic alloys using electron microscopy and atom probe tomography. <i>Materials Characterization</i> , 2019 , 158, 109987	3.9	9
221	Constitutive properties and plastic instabilities in the heat-affected zones of advanced high-strength steel spot welds. <i>Journal of Materials Science</i> , 2019 , 54, 5825-5843	4.3	10
220	Multi-solution nature of topology optimization and its application in design for additive manufacturing. <i>Rapid Prototyping Journal</i> , 2019 , 25, 1475-1481	3.8	4
219	Fully printed and integrated electrolyzer cells with additive manufacturing for high-efficiency water splitting. <i>Applied Energy</i> , 2018 , 215, 202-210	10.7	38
218	Ultrasonic additive manufacturing of steel: Method, post-processing treatments and properties. <i>Journal of Materials Processing Technology</i> , 2018 , 256, 183-189	5.3	36
217	Characterization of topology optimized Ti-6Al-4V components using electron beam powder bed fusion. <i>Additive Manufacturing</i> , 2018 , 19, 184-196	6.1	25

216	Development of a gall-resistant stainless-steel hardfacing alloy. <i>Materials and Design</i> , 2018 , 143, 38-48	8.1	11
215	Role of scan strategies on thermal gradient and solidification rate in electron beam powder bed fusion. <i>Additive Manufacturing</i> , 2018 , 22, 516-527	6.1	33
214	Rationalization of solidification mechanism of NdFeB magnets during laser directed-energy deposition. <i>Journal of Materials Science</i> , 2018 , 53, 8619-8626	4.3	16
213	Evaluation of microstructure stability at the interfaces of Al-6061 welds fabricated using ultrasonic additive manufacturing. <i>Materials Characterization</i> , 2018 , 139, 249-258	3.9	24
212	Influence of hot isostatic pressing on the performance of aluminum alloy fabricated by ultrasonic additive manufacturing. <i>Scripta Materialia</i> , 2018 , 145, 33-36	5.6	37
211	Evaluation of Carbon Partitioning in New Generation of Quench and Partitioning (Q&P) Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 4809-4823	2.3	9
210	Asymmetric Cracking in Mar-M247 Alloy Builds During Electron Beam Powder Bed Fusion Additive Manufacturing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 5065-5079	2.3	36
209	Feasibility Study of Making Metallic Hybrid Materials Using Additive Manufacturing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 5035-5041	2.3	12
208	Microstructural Investigations in Metals Using Atom Probe Tomography with a Novel Specimen-Electrode Geometry. <i>Jom</i> , 2018 , 70, 1776-1784	2.1	3
207	Meta-equilibrium transition microstructure for maximum austenite stability and minimum hardness in a Ti-stabilized supermartensitic stainless steel. <i>Materials and Design</i> , 2018 , 156, 609-621	8.1	11
206	Process-Defect-Structure-Property Correlations During Laser Powder Bed Fusion of Alloy 718: Role of In Situ and Ex Situ Characterizations. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 5775-5798	2.3	29
205	Additive Manufacturing of Nickel Superalloys: Opportunities for Innovation and Challenges Related to Qualification. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 3764-3780	2.3	85
204	Enfoque de género en el acuerdo de paz entre el Gobierno Colombiano y las FARC-EP: transiciones necesarias para su implementación. <i>Araucaria</i> , 2018 , 389-414	1	4
203	Toward Process-Based Quality through a Fundamental Understanding of Weld Microstructural Evolution. <i>Welding Journal</i> , 2018 , 97, 1-16	2.2	6
202	Compositional analysis on the reverted austenite and tempered martensite in a Ti-stabilized supermartensitic stainless steel: Segregation, partitioning and carbide precipitation. <i>Materials and Design</i> , 2018 , 140, 95-105	8.1	35
201	On the toughness scatter in low alloy C-Mn steel samples fabricated using wire arc additive manufacturing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 713, 18-27	5.3	33
200	In-situ TEM Heating Experiment to Study Effects of Cyclic Thermal Gradients on Ti-6Al-4V under Additive Manufacturing Growth Conditions. <i>Microscopy and Microanalysis</i> , 2018 , 24, 1932-1933	0.5	1
199	Development of Creep-Resistant, Alumina-Forming Ferrous Alloys for High-Temperature Structural Use 2018 ,		4

198	Geometry-Induced Spatial Variation of Microstructure Evolution During Selective Electron Beam Melting of Rene-N5. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 5080-5096	2.3	25
197	Progress in the Processing and Understanding of Alloy 718 Fabricated Through Powder Bed Additive Manufacturing Processes. <i>Minerals, Metals and Materials Series</i> , 2018 , 69-88	0.3	3
196	Bipolar plate development with additive manufacturing and protective coating for durable and high-efficiency hydrogen production. <i>Journal of Power Sources</i> , 2018 , 396, 590-598	8.9	42
195	Powder bed binder jet 3D printing of Inconel 718: Densification, microstructural evolution and challenges?. <i>Current Opinion in Solid State and Materials Science</i> , 2017 , 21, 207-218	12	114
194	Additive manufacturing of complex-shaped graded TiC/steel composites. <i>Materials and Design</i> , 2017 , 118, 198-203	8.1	69
193	Thermographic Microstructure Monitoring in Electron Beam Additive Manufacturing. <i>Scientific Reports</i> , 2017 , 7, 43554	4.9	70
192	Additive manufactured bipolar plate for high-efficiency hydrogen production in proton exchange membrane electrolyzer cells. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 14734-14740	6.7	46
191	Tempering of Low-Temperature Bainite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017 , 48, 3410-3418	2.3	19
190	Five-Axis Ultrasonic Additive Manufacturing for Nuclear Component Manufacture. <i>Jom</i> , 2017 , 69, 485-490	11	22
189	Microstructure and mechanical property characterisation of aluminium-steel joints fabricated using ultrasonic additive manufacturing. <i>Science and Technology of Welding and Joining</i> , 2017 , 22, 373-380	3.7	20
188	Effect of post weld heat treatment on the 6061 aluminum alloy produced by ultrasonic additive manufacturing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 684, 606-616	5.3	42
187	Evaluation of an Al-Ce alloy for laser additive manufacturing. <i>Acta Materialia</i> , 2017 , 126, 507-519	8.4	75
186	Colossal super saturation of oxygen at the iron-aluminum interfaces fabricated using solid state welding. <i>Scripta Materialia</i> , 2017 , 130, 196-199	5.6	20
185	Building digital twins of 3D printing machines. <i>Scripta Materialia</i> , 2017 , 135, 119-124	5.6	115
184	Verification and validation of a rapid heat transfer calculation methodology for transient melt pool solidification conditions in powder bed metal additive manufacturing. <i>Additive Manufacturing</i> , 2017 , 18, 256-268	6.1	61
183	Localized melt-scan strategy for site specific control of grain size and primary dendrite arm spacing in electron beam additive manufacturing. <i>Acta Materialia</i> , 2017 , 140, 375-387	8.4	99
182	Understanding the thermal sciences in the electron beam melting process through in-situ process monitoring 2017 ,		1
181	Heterogeneous Creep Deformations and Correlation to Microstructures in Fe-30Cr-3Al Alloys Strengthened by an Fe ₂ Nb Laves Phase. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017 , 48, 4598-4614	2.3	13

180	Microstructural Characteristics and Mechanical Properties of Friction Stir Welded Thick 5083 Aluminum Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017 , 48, 208-229	2.3	28
179	Feasibility of in situ controlled heat treatment (ISHT) of Inconel 718 during electron beam melting additive manufacturing. <i>Additive Manufacturing</i> , 2017 , 13, 156-165	6.1	32
178	Optimizing, Fabricating and Characterizing Additively Manufactured Heat Exchanger Tubing. <i>Minerals, Metals and Materials Series</i> , 2017 , 127-135	0.3	
177	Phase Field Simulations of Autocatalytic Formation of Alpha Lamellar Colonies in Ti-6Al-4V. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 6577-6592 ^{2,3}	2.3	20
176	Toward Improving the Type IV Cracking Resistance in Cr-Mo Steel Weld Through Thermo-Mechanical Processing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 2188-2200	2.3	12
175	Characterization of Steel-Ta Dissimilar Metal Builds Made Using Very High Power Ultrasonic Additive Manufacturing (VHP-UAM). <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 2517-2528	2.3	22
174	Texture Evolution During Laser Direct Metal Deposition of Ti-6Al-4V. <i>Jom</i> , 2016 , 68, 772-777	2.1	49
173	Mechanical Characterization of an Additively Manufactured Inconel 718 Theta-Shaped Specimen. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 971-980	2.3	14
172	Recyclability Study on Inconel 718 and Ti-6Al-4V Powders for Use in Electron Beam Melting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016 , 47, 754-762	2.5	81
171	Microstructural and micromechanical characterization of IN718 theta shaped specimens built with electron beam melting. <i>Acta Materialia</i> , 2016 , 108, 161-175	8.4	47
170	Microstructure and texture evolution in aluminum and commercially pure titanium dissimilar welds fabricated using ultrasonic additive manufacturing. <i>Scripta Materialia</i> , 2016 , 117, 1-5	5.6	57
169	The metallurgy and processing science of metal additive manufacturing. <i>International Materials Reviews</i> , 2016 , 61, 315-360	16.1	1185
168	Characterisation of AlTi dissimilar material joints fabricated using ultrasonic additive manufacturing. <i>Science and Technology of Welding and Joining</i> , 2016 , 21, 114-123	3.7	32
167	Metallic materials for 3D printing. <i>MRS Bulletin</i> , 2016 , 41, 729-741	3.2	69
166	Numerical modeling of heat-transfer and the influence of process parameters on tailoring the grain morphology of IN718 in electron beam additive manufacturing. <i>Acta Materialia</i> , 2016 , 112, 303-314	8.4	271
165	Fabrication of conductive paths on a fused deposition modeling substrate using inkjet deposition. <i>Rapid Prototyping Journal</i> , 2016 , 22, 77-86	3.8	11
164	Microstructure Development in Electron Beam-Melted Inconel 718 and Associated Tensile Properties. <i>Jom</i> , 2016 , 68, 1012-1020	2.1	69
163	Rationalization of anisotropic mechanical properties of Al-6061 fabricated using ultrasonic additive manufacturing. <i>Acta Materialia</i> , 2016 , 117, 228-237	8.4	68

162	Site specific control of crystallographic grain orientation through electron beam additive manufacturing. <i>Materials Science and Technology</i> , 2015 , 31, 931-938	1.5	303
161	Sintering Kinetics of Inkjet-Printed Conductive Silver Lines on Insulating Plastic Substrate. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015 , 46, 1542-1547	2.5	7
160	Computational modeling of residual stress formation during the electron beam melting process for Inconel 718. <i>Additive Manufacturing</i> , 2015 , 7, 83-91	6.1	87
159	Effect of filler metal and post-weld friction stir processing on stress corrosion cracking susceptibility of AlZnMg arc welds. <i>Science and Technology of Welding and Joining</i> , 2015 , 20, 460-467	3.7	9
158	Structure-mechanical property relationship in fused deposition modelling. <i>Materials Science and Technology</i> , 2015 , 31, 895-903	1.5	57
157	Effect of microstructure and defects on fatigue behaviour of directed energy deposited TiBAlV. <i>Science and Technology of Welding and Joining</i> , 2015 , 20, 659-669	3.7	43
156	In situ X-ray diffraction analysis of strain-induced transformations in Fe- and Co-base hardfacing alloys. <i>Scripta Materialia</i> , 2015 , 98, 60-63	5.6	20
155	Additive manufacturing of materials: Opportunities and challenges. <i>MRS Bulletin</i> , 2015 , 40, 1154-1161	3.2	69
154	Optical properties and CCN activity of aerosols in a high-altitude Himalayan environment: Results from RAWEX-GVAX. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 2453-2469	4.4	25
153	Comparison of Residual Stresses in Inconel 718 Simple Parts Made by Electron Beam Melting and Direct Laser Metal Sintering. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015 , 46, 1419-1432	2.3	150
152	Assessing Sperm Quality in Stingless Bees. <i>Sociobiology</i> , 2015 , 61,	1.5	4
151	Experimental observations of wear in specimens tested to ASTM G98. <i>Wear</i> , 2014 , 320, 111-119	3.5	9
150	Rationalization of Microstructure Heterogeneity in INCONEL 718 Builds Made by the Direct Laser Additive Manufacturing Process. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 4470-4483	2.3	142
149	Effect of Fluid Convection on Dendrite Arm Spacing in Laser Deposition. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014 , 45, 1520-1529	2.5	73
148	Reducing hot cracking tendency of dissimilar weld overlay by magnetic arc oscillation. <i>Materials Science and Technology</i> , 2014 , 30, 930-937	1.5	14
147	Effect of ultrasonic welding parameters on microstructure and mechanical properties of dissimilar joints. <i>Materials & Design</i> , 2014 , 55, 263-273		93
146	Effect of microstructural heterogeneities on scatter of toughness in multi-pass weld metal of CMn steels. <i>Science and Technology of Welding and Joining</i> , 2014 , 19, 376-384	3.7	18
145	Delamination failures of Stellite hardfacing in power plants: a microstructural characterisation study. <i>Science and Technology of Welding and Joining</i> , 2014 , 19, 476-486	3.7	15

144	In situ velocity measurements of very high power ultrasonic additive manufacturing using a photonic Doppler velocimeter. <i>Science and Technology of Welding and Joining</i> , 2014 , 19, 157-163	3.7	12
143	Mechanism of weld formation during very-high-power ultrasonic additive manufacturing of Al alloy 6061. <i>Acta Materialia</i> , 2014 , 74, 234-243	8.4	81
142	Effect of Process Control and Powder Quality on Inconel 718 Produced Using Electron Beam Melting 2014 , 409-423		18
141	Thermal effects on microstructural heterogeneity of Inconel 718 materials fabricated by electron beam melting. <i>Journal of Materials Research</i> , 2014 , 29, 1920-1930	2.5	136
140	In Situ Phase Transformation Study in Fine Grained Heat Affected Zone of Grade 91 Steels 2014 , 29-49		1
139	Porosity and phase fraction evolution with aging in lithium iron phosphate battery cathodes. <i>Journal of Power Sources</i> , 2013 , 243, 750-757	8.9	16
138	Dependency of martensite start temperature on prior austenite grain size and its influence on welding-induced residual stresses. <i>Computational Materials Science</i> , 2013 , 69, 251-260	3.2	40
137	High strength weld metal design through nanoscale copper precipitation. <i>Materials & Design</i> , 2013 , 50, 962-967		9
136	Physical Simulation of Deformation and Microstructure Evolution During Friction Stir Processing of Ti-6Al-4V Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 3577-3591	2.3	15
135	Microstructure evolution during tensile deformation of a nanostructured bainitic steel. <i>Scripta Materialia</i> , 2013 , 69, 777-780	5.6	45
134	Correlation of precipitate stability to increased creep resistance of CrMo steel welds. <i>Acta Materialia</i> , 2013 , 61, 2194-2206	8.4	39
133	Elastic constants of Ultrasonic Additive Manufactured Al 3003-H18. <i>Ultrasonics</i> , 2013 , 53, 211-8	3.5	24
132	Welding of Materials for Energy Applications. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 3385-3410	2.3	22
131	Multi-Scale Characterization Studies of Aged Li-Ion Large Format Cells for Improved Performance: An Overview. <i>Journal of the Electrochemical Society</i> , 2013 , 160, A2111-A2154	3.9	41
130	Investigation of heat affected zone softening in armour steels Part 1 [Phase transformation kinetics. <i>Science and Technology of Welding and Joining</i> , 2013 , 18, 247-252	3.7	12
129	Investigation of heat affected zone softening in armour steels Part 2 [Mechanical and microstructure heterogeneity. <i>Science and Technology of Welding and Joining</i> , 2013 , 18, 253-260	3.7	4
128	Establishing W-based Friction Stir Welding Tool Life for Thick Section Steel Applications 2013 , 107-116		0
127	Thermal Transients During Processing of 3003 Al-H18 Multilayer Build by Very High-Power Ultrasonic Additive Manufacturing. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2012 , 43, 133-144	2.5	19

126	Strain-Based Assessment and Modeling for Low-Distortion Welding Procedure. <i>Materials and Manufacturing Processes</i> , 2012 , 27, 943-948	4.1	6
125	Raman and NMR studies of aged LiFePO ₄ cathode. <i>Applied Surface Science</i> , 2012 , 259, 49-54	6.7	9
124	Discovery of lithium in copper current collectors used in batteries. <i>Scripta Materialia</i> , 2012 , 67, 669-672	5.6	25
123	Direct Observation that Bainite can Grow Below MS. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012 , 43, 4984-4988	2.3	44
122	In-Situ Observations of Martensitic Transformation in Blast-Resistant Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012 , 43, 1538-1546	2.3	12
121	Optimizing Ultrasonic Additive Manufactured Al 3003 Properties With Statistical Modeling. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2012 , 134,	1.8	28
120	Application of synchrotron and neutron scattering techniques for tracking phase transformations in steels 2012 , 588-633		1
119	Using Tournaments to Reduce Agency Problems: The Case of Franchising. <i>Entrepreneurship Theory and Practice</i> , 2011 , 35, 427-447	6.6	37
118	Effect of grain size refinement and precipitation reactions on strengthening in friction stir processed AlCu alloys. <i>Scripta Materialia</i> , 2011 , 65, 1057-1060	5.6	78
117	Local electronic structure of LiFePO ₄ nanoparticles in aged Li-ion batteries. <i>Acta Materialia</i> , 2011 , 59, 6917-6926	8.4	16
116	Application of high velocity impact welding at varied different length scales. <i>Journal of Materials Processing Technology</i> , 2011 , 211, 944-952	5.3	139
115	Strength Recovery in a High-Strength Steel During Multiple Weld Thermal Simulations. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011 , 42, 3669-3679	2.3	19
114	Welding-Induced Microstructure Evolution of a Cu-Bearing High-Strength Blast-Resistant Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011 , 42, 4015-4031	2.3	11
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