Julie M Schoenung

List of Publications by Citations

210 papers	7,249 citations	46 h-index	78 g-index
217 ext. papers	8,804 ext. citations	5.5 avg, IF	6.31 L-index

#	Paper	IF	Citations
210	Mechanical behavior and strengthening mechanisms in ultrafine grain precipitation-strengthened aluminum alloy. *Acta Materialia*, **2014**, 62, 141-155	8.4	658
209	Electronic waste recycling: A review of U.S. infrastructure and technology options. *Resources, Conservation and Recycling*, **2005**, 45, 368-400	11.9	347
208	On the limitations of Volumetric Energy Density as a design parameter for Selective Laser Melting. *Materials and Design*, **2017**, 113, 331-340	8.1	290
207	Cold spray deposition of nanocrystalline aluminum alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2005**, 36, 657-666	2.3	175
206	Science and regulation. The electronics revolution: from e-wonderland to e-wasteland. *Science*, **2009**, 326, 670-1	33.3	168
205	In-situ characterization of laser-powder interaction and cooling rates through high-speed imaging of powder bed fusion additive manufacturing. *Materials and Design*, **2017**, 135, 385-396	8.1	167
204	A tri-modal aluminum based composite with super-high strength. *Scripta Materialia*, **2005**, 53, 481-486	5.6	161
203	Mechanical behavior of ultrafine-grained Al composites reinforced with B4C nanoparticles. *Scripta Materialia*, **2011**, 65, 652-655	5.6	152
202	Nanostructured coatings. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2002**, 336, 274-319	5.3	147
201	Oxidation behavior of HVOF sprayed nanocrystalline NiCrAlY powder. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2002**, 338, 33-43	5.3	144
200	Toughening of aluminum matrix nanocomposites via spatial arrays of boron carbide spherical nanoparticles. *Acta Materialia*, **2016**, 103, 128-140	8.4	136
199	Coupling of dislocations and precipitates: Impact on the mechanical behavior of ultrafine grained Al□Zn□Mg alloys. *Acta Materialia*, **2016**, 103, 153-164	8.4	130
198	Human health and ecological toxicity potentials due to heavy metal content in waste electronic devices with flat panel displays. *Journal of Hazardous Materials*, **2010**, 177, 251-9	12.8	125
197	Dry sliding friction and wear properties of B4C particulate-reinforced Al-5083 matrix composites. *Wear*, **2008**, 264, 555-561	3.5	120
196	Potential environmental impacts of light-emitting diodes (LEDs): metallic resources, toxicity, and hazardous waste classification. *Environmental Science & Technology*, **2011**, 45, 320-7	10.3	100
195	Strengthening mechanisms in directed energy deposited austenitic stainless steel. *Acta Materialia*, **2019**, 164, 728-740	8.4	100
194	A review on nanostructured WC□Co coatings. *Surface and Coatings Technology*, **2002**, 157, 72-79	4.4	94

193	Potential environmental impacts from the metals in incandescent, compact fluorescent lamp (CFL), and light-emitting diode (LED) bulbs. *Environmental Science & Technology*, **2013**, 47, 1040-7	10.3	89
192	Microstructure and tensile properties of bulk nanostructured Al-5083/SiCp composites prepared by cryomilling. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 407, 306-314	5.3	88
191	Influence of length-scales on spatial distribution and interfacial characteristics of B4C in a nanostructured Al matrix. *Acta Materialia*, **2015**, 89, 327-343	8.4	80
190	Yield symmetry and reduced strength differential in Mg-2.5Y alloy. *Acta Materialia*, **2016**, 120, 75-85	8.4	77
189	Bulk nanocrystalline aluminum 5083 alloy fabricated by a novel technique: Cryomilling and spark plasma sintering. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2006**, 37, 2569-2579	2.3	77
188	Influence of particle size and spatial distribution of B4C reinforcement on the microstructure and mechanical behavior of precipitation strengthened Al alloy matrix composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 675, 421-430	5.3	72
187	Economic analysis of electronic waste recycling: modeling the cost and revenue of a materials recovery facility in California. *Environmental Science & Technology*, **2006**, 40, 1672-80	10.3	72
186	Aluminum with dispersed nanoparticles by laser additive manufacturing. *Nature Communications*, **2019**, 10, 4124	17.4	70
185	3D Microstructure-based finite element modeling of deformation and fracture of SiCp/Al composites. *Composites Science and Technology*, **2016**, 123, 1-9	8.6	69
184	Isothermal oxidation behavior of cryomilled NiCrAlY bond coat: Homogeneity and growth rate of TGO. *Surface and Coatings Technology*, **2011**, 205, 5178-5185	4.4	69
183	Evolution of Young□s modulus of air plasma sprayed yttria-stabilized zirconia in thermally cycled thermal barrier coatings. *Scripta Materialia*, **2006**, 54, 1587-1592	5.6	67
182	Fabrication of WC□Co cermets by laser engineered net shaping. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 493, 261-266	5.3	61
181	Synthesis and oxidation behavior of nanocrystalline MCrAlY bond coatings. *Journal of Thermal Spray Technology*, **2005**, 14, 23-30	2.5	60
180	In situ oxide dispersion strengthened tungsten alloys with high compressive strength and high strain-to-failure. *Acta Materialia*, **2017**, 122, 19-31	8.4	58
179	Effects of surface oxidation during HVOF processing on the primary stage oxidation of a CoNiCrAlY coating. *Surface and Coatings Technology*, **2004**, 185, 228-233	4.4	58
178	Tensile behavior and strengthening mechanisms in a submicron B4C-reinforced Al trimodal composite. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 616, 35-43	5.3	57
177	Stability of cellular microstructure in laser powder bed fusion of 316L stainless steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 739, 109-117	5.3	57
176	Estimation of future outflows and infrastructure needed to recycle personal computer systems in California. *Journal of Hazardous Materials*, **2006**, 137, 1165-74	12.8	55

175	Toxicity potentials from waste cellular phones, and a waste management policy integrating consumer, corporate, and government responsibilities. *Waste Management*, **2010**, 30, 1653-60	8.6	54
174	Mechanisms of microstructure evolution during cryomilling in the presence of hard particles. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2003**, 356, 23-31	5.3	53
173	Reinforcement size effects on the abrasive wear of boron carbide reinforced aluminum composites. *Wear*, **2017**, 390-391, 228-235	3.5	52
172	Synthesis and mechanical behavior of nanostructured Al 5083/n-TiB 2 metal matrix composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2016**, 656, 241-248	5.3	50
171	Grain size dependence of fracture toughness for fine grained alumina. *Scripta Materialia*, **2011**, 65, 143-146	3.6	50
170	Sintering behavior of spark plasma sintered alumina with graphene nanoplatelet reinforcement. *Ceramics International*, **2015**, 41, 5926-5936	5.1	49
169	Directed energy deposition (DED) additive manufacturing: Physical characteristics, defects, challenges and applications. *Materials Today*, **2021**, 49, 271-271	21.8	49
168	Influence of interfaces on the mechanical behavior of SiC particulate-reinforced Al□nMg□u composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 644, 79-84	5.3	48
167	On the thermal stability of ultrafine-grained Al stabilized by in-situ amorphous Al2O3 network. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2015**, 648, 61-71	5.3	48
166	Waste management of printed wiring boards: a life cycle assessment of the metals recycling chain from liberation through refining. *Environmental Science & Technology*, **2015**, 49, 940-7	10.3	48
165	Metal/ceramic interface structures and segregation behavior in aluminum-based composites. *Acta Materialia*, **2015**, 95, 254-263	8.4	47
164	Characterization of oxide scales formed on HVOF NiCrAlY coatings with various oxygen contents introduced during thermal spraying. *Scripta Materialia*, **2004**, 51, 25-29	5.6	44
163	Formation of coarse-grained inter-particle regions during hot isostatic pressing of nanocrystalline powder. *Scripta Materialia*, **2005**, 53, 619-624	5.6	44
162	Effects of variations in coating materials and process conditions on the thermal cycle properties of NiCrAlY/YSZ thermal barrier coatings. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 425, 94-106	5.3	43
161	Process-Structure-Property Relationships for 316L Stainless Steel Fabricated by Additive Manufacturing and Its Implication for Component Engineering. *Journal of Thermal Spray Technology* , **2017**, 26, 610-626	2.5	40
160	Reuse of powder feedstock for directed energy deposition. *Powder Technology*, **2018**, 338, 819-829	5.2	40
159	Field assisted sintering of graphene reinforced zirconia ceramics. *Ceramics International*, **2015**, 41, 6113-6116	5.1	40
158	Investigation into the microstructure evolution caused by nanoscratch-induced room temperature deformation in M-plane sapphire. *Acta Materialia*, **2011**, 59, 5181-5193	8.4	40

157	In situ thermal imaging and three-dimensional finite element modeling of tungsten carbide□cobalt during laser deposition. *Acta Materialia*, **2009**, 57, 5419-5429	8.4	40
156	An integrated impact assessment and weighting methodology: evaluation of the environmental consequences of computer display technology substitution. *Journal of Environmental Management*, **2007**, 83, 1-24	7.9	40
155	Strain softening in nanocrystalline or ultrafine-grained metals: A mechanistic explanation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 493, 101-103	5.3	40
154	Thermal stability of nanostructured Cr3C2-NiCr coatings. *Journal of Thermal Spray Technology*, **2001**, 10, 293-300	2.5	40
153	Entropic phase transformation in nanocrystalline high entropy oxides. *Materials Research Letters*, **2019**, 7, 60-67	7.4	40
152	Microstructure and Strengthening Mechanisms in an Ultrafine Grained Al-Mg-Sc Alloy Produced by Powder Metallurgy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2014**, 45, 6329-6343	2.3	38
151	The Microstructural Design of Trimodal Aluminum Composites. *Jom*, **2014**, 66, 898-908	2.1	37
150	Spark Plasma Sintering of Cryomilled Nanocrystalline Al Alloy - Part II: Influence of Processing Conditions on Densification and Properties. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 340-350	2.3	36
149	The influence of working distance on laser deposited WC□o. *Journal of Materials Processing Technology*, **2009**, 209, 4935-4941	5.3	34
148	Strengthening mechanisms and deformation behavior of cryomilled Al□Cu□Mg□Ag alloy. *Journal of Alloys and Compounds*, **2015**, 632, 591-603	5.7	33
147	Observations of particle-melt pool impact events in directed energy deposition. *Additive Manufacturing*, **2018**, 22, 368-374	6.1	32
146	Environmental and economic evaluation of cathode ray tube (CRT) funnel glass waste management options in the United States. *Resources, Conservation and Recycling*, **2013**, 78, 92-104	11.9	32
145	Degassing Behavior of Nanostructured Al and Its Composites. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2010**, 41, 532-541	2.3	32
144	Working distance passive stability in laser directed energy deposition additive manufacturing. *Materials and Design*, **2019**, 161, 86-94	8.1	32
143	Bulk ultrafine grained/nanocrystalline metals via slow cooling. *Science Advances*, **2019**, 5, eaaw2398	14.3	30
142	Environmental and risk screening for prioritizing pollution prevention opportunities in the U.S. printed wiring board manufacturing industry. *Journal of Hazardous Materials*, **2011**, 189, 315-22	12.8	30
141	Adopting Lead-Free Electronics: Policy Differences and Knowledge Gaps. *Journal of Industrial Ecology*, **2004**, 8, 59-85	7.2	30
140	Investigation into the effects of Fe additions on the equilibrium phase compositions, phase fractions and phase stabilities in the Ni□Cr□Al system. *Acta Materialia*, **2010**, 58, 1518-1529	8.4	29

139	Cryomilling for the fabrication of a particulate B4C reinforced Al nanocomposite: Part II. Mechanisms for microstructural evolution. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2006**, 37, 3111-3117	2.3	29
138	Elevated temperature wear behavior of thermally sprayed WC-Co/nanodiamond composite coatings. *Surface and Coatings Technology*, **2017**, 315, 283-293	4.4	28
137	Influence of phase decomposition on mechanical behavior of an equiatomic CoCuFeMnNi high entropy alloy. *Acta Materialia*, **2019**, 181, 25-35	8.4	28
136	Spark Plasma Sintering of Cryomilled Nanocrystalline Al Alloy - Part I: Microstructure Evolution. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 327-339	2.3	27
135	Synthesis of □silicon nitride single-crystalline nanowires by nitriding cryomilled nanocrystalline silicon powder. *Scripta Materialia*, **2009**, 60, 737-740	5.6	27
134	Creep deformation mechanism of cryomilled NiCrAlY bond coat material. *Surface and Coatings Technology*, **2007**, 201, 9462-9467	4.4	27
133	Stabilized plasticity in ultrahigh strength, submicron Al crystals. *Acta Materialia*, **2015**, 94, 46-58	8.4	26
132	Reinforcement Size Dependence of Load Bearing Capacity in Ultrafine-Grained Metal Matrix Composites. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2017**, 48, 4385-4392	2.3	25
131	Linking Material Flow Analysis with Environmental Impact Potential. *Journal of Industrial Ecology*, **2013**, 17, 299-309	7.2	24
130	Quasi-static and high-rate mechanical behavior of aluminum-based MMC reinforced with boron carbide of various length scales. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 650, 305-316	5.3	23
129	Influence of cryomilling on the microstructural features in HVOF-sprayed NiCrAlY bond coats for thermal barrier coatings: Creation of a homogeneous distribution of nanoscale dispersoids. *Philosophical Magazine Letters*, **2010**, 90, 739-751	1	23
128	Quantity-based and toxicity-based evaluation of the U.S. Toxics Release Inventory. *Journal of Hazardous Materials*, **2010**, 178, 49-56	12.8	23
127	Two-stage ball milling of recycled machining chips to create an alternative feedstock powder for metal additive manufacturing. *Powder Technology*, **2019**, 342, 562-571	5.2	23
126	Two-Step SPD Processing of a Trimodal Al-Based Nano-Composite. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 5877-5886	2.3	22
125	Directed energy deposition of Al 5xxx alloy using Laser Engineered Net Shaping (LENS□). *Materials and Design*, **2020**, 192, 108763	8.1	22
124	Flow battery production: Materials selection and environmental impact. *Journal of Cleaner Production*, **2020**, 269, 121740	10.3	22
123	Relationship between manufacturing defects and fatigue properties of additive manufactured austenitic stainless steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 765, 138268	5.3	22
122	Scratch-induced deformation in fine- and ultrafine-grained bulk alumina. *Scripta Materialia*, **2010**, 63, 528-531	5.6	22

121	Influence of grain boundaries with dispersed nanoscale Al2O3 particles on the strength of Al for a wide range of homologous temperatures. *Journal of Alloys and Compounds*, **2019**, 772, 472-481	5.7	22
120	Microscale tribological behavior and in vitro biocompatibility of graphene nanoplatelet reinforced alumina. *Journal of the Mechanical Behavior of Biomedical Materials*, **2016**, 61, 122-134	4.1	21
119	Reversed compressive yield anisotropy in magnesium with microlaminated structure. *Acta Materialia*, **2018**, 146, 12-24	8.4	20
118	Spark plasma sintering and mechanical behavior of magnesia–yttria (50:50 vol.%) nanocomposites. *Scripta Materialia*, **2014**, 75, 18-21	5.6	20
117	Comparative alternative materials assessment to screen toxicity hazards in the life cycle of CIGS thin film photovoltaics. *Journal of Hazardous Materials*, **2013**, 260, 534-42	12.8	20
116	Modelling particle impact on the melt pool and wettability effects in laser directed energy deposition additive manufacturing. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 761, 138052	5.3	19
115	Exceptional combination of soft magnetic and mechanical properties in a heterostructured high-entropy composite. *Applied Materials Today*, **2019**, 15, 590-598	6.6	19
114	Spark Plasma Sintering and Densification Mechanisms of Conductive Ceramics under Coupled Thermal/Electric Fields. *Journal of the American Ceramic Society*, **2015**, 98, 732-740	3.8	19
113	A Statistical Analysis of Powder Flowability in Metal Additive Manufacturing. *Advanced Engineering Materials*, **2020**, 22, 2000022	3.5	19
112	Effect of post-annealing on the electrical conductivity of spark plasma sintered antimony-doped tin oxide (ATO) ceramics. *Scripta Materialia*, **2013**, 68, 297-300	5.6	19
111	Simultaneous synthesis by spark plasma sintering of a thermal barrier coating system with a NiCrAlY bond coat. *Surface and Coatings Technology*, **2010**, 205, 1241-1244	4.4	19
110	Thermodynamic investigation into the equilibrium phases in the NiCoCrAl system at elevated temperatures. *Surface and Coatings Technology*, **2010**, 205, 2273-2280	4.4	19
109	A streamlined life cycle assessment on the fabrication of WC–Co cermets. *Journal of Cleaner Production*, **2008**, 16, 1118-1126	10.3	19
108	Advancing Alternative Analysis: Integration of Decision Science. *Environmental Health Perspectives*, **2017**, 125, 066001	8.4	18
107	TEM study on relationship between stacking faults and non-basal dislocations in Mg. *Philosophical Magazine*, **2015**, 95, 3823-3844	1.6	18
106	Human health and ecotoxicological considerations in materials selection for sustainable product development. *MRS Bulletin*, **2012**, 37, 356-363	3.2	17
105	An integrated approach for probing the structure and mechanical properties of diatoms: Toward engineered nanotemplates. *Acta Biomaterialia*, **2015**, 25, 313-24	10.8	16
104	A comparative analysis of solubility, segregation, and phase formation in atomized and cryomilled Al–Fe alloy powders. *Journal of Materials Science*, **2015**, 50, 4683-4697	4.3	16

103	Anomalous Annealing Response of Directed Energy Deposited Type 304L Austenitic Stainless Steel. *Jom*, **2018**, 70, 358-363	2.1	16
102	Metal/ceramic Interface Structures and Segregation Behavior in Aluminum-based Composites. *Microscopy and Microanalysis*, **2015**, 21, 1053-1054	0.5	16
101	Improving build quality in Directed Energy Deposition by cross-hatching. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 765, 138269	5.3	15
100	Distinct Hardening Behavior of Ultrafine-Grained Al-Zn-Mg-Cu Alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2014**, 45, 4762-4765	2.3	15
99	Micro-strain Evolution and Toughening Mechanisms in a Trimodal Al-Based Metal Matrix Composite. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 1196-1204	2.3	15
98	Combining U.S.-based prioritization tools to improve screening level accountability for environmental impact: the case of the chemical manufacturing industry. *Journal of Hazardous Materials*, **2009**, 172, 423-31	12.8	15
97	Improved Mechanical Behavior and Plastic Deformation Capability of Ultrafine Grain Alumina Ceramics. *Journal of the American Ceramic Society*, **2012**, 95, 379-385	3.8	14
96	Priority screening of toxic chemicals and industry sectors in the U.S. toxics release inventory: a comparison of the life cycle impact-based and risk-based assessment tools developed by U.S. EPA. *Journal of Environmental Management*, **2011**, 92, 2235-40	7.9	14
95	Nanocrystalline Ni coatings strengthened with ultrafine particles. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2003**, 34, 673-683	2.3	14
94	Synthesis and Pressureless Sintering of Zirconium Phosphate Ceramics. *Journal of the American Ceramic Society*, **2008**, 91, 3173-3180	3.8	13
93	Directed energy deposition of AlSi10Mg: Single track nonscalability and bulk properties. *Materials and Design*, **2020**, 194, 108847	8.1	12
92	Multiple and extended shear band formation in MgCuGd metallic glass during high-pressure torsion. *Scripta Materialia*, **2014**, 86, 24-27	5.6	12
91	The Influence of Grain Size Determination Method on Grain Growth Kinetics Analysis. *Advanced Engineering Materials*, **2015**, 17, 1598-1607	3.5	12
90	High temperature microstructure and microhardness evolution in dense NiCrAlY bulk material fabricated by spark plasma sintering. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 3210-3217	5.3	12
89	Environmental Sustainability of Laser Metal Deposition: The Role of Feedstock Powder and Feedstock Utilization Factor. *Procedia Manufacturing*, **2017**, 7, 198-204	1.5	11
88	Twin formation from a twin boundary in Mg during in-situ nanomechanical testing. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 759, 142-153	5.3	11
87	Disconnection-mediated twin embryo growth in Mg. *Acta Materialia*, **2020**, 194, 437-451	8.4	11
86	Stress-enhanced grain growth in a nanostructured aluminium alloy during spark plasma sintering. *Philosophical Magazine Letters*, **2014**, 94, 741-748	1	11

85	Strain Energy During Mechanical Milling: Part I. Mathematical Modeling. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 4247-4257	2.3	11
84	Microstructure and mechanical behavior of NS/UFG aluminum prepared by cryomilling and spark plasma sintering. *Journal of Alloys and Compounds*, **2016**, 679, 426-435	5.7	11
83	Spark Plasma Sintering of Nanostructured Aluminum: Influence of Tooling Material on Microstructure. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science* , **2013**, 44, 1908-1916	2.3	9
82	Absorption of Nitrogen at Al/Al2O3 Interfaces in Al Nanocomposites: A Computational Analysis. *Advanced Engineering Materials*, **2012**, 14, 77-84	3.5	8
81	Spark Plasma Sintering and Densification Mechanisms of Antimony-Doped Tin Oxide Nanoceramics. *Journal of Nanomaterials*, **2013**, 2013, 1-7	3.2	8
80	Sintering behavior in zirconium phosphate bonded silicon nitride porous ceramics. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 497, 495-500	5.3	8
79	From Recycled Machining Waste to Useful Powders for Metal Additive Manufacturing. *Minerals, Metals and Materials Series*, **2019**, 3-7	0.3	8
78	Synthesis and Multi Scale Tribological Behavior of WC-Co/Nanodiamond Nanocomposites. *Scientific Reports*, **2017**, 7, 7060	4.9	7
77	Orientation Effects on Fatigue Behavior of Additively Manufactured Stainless Steel **2017**,		7
76	Measurement and analysis of product energy efficiency to assist energy star criteria development: An example for desktop computers. *Energy Policy*, **2011**, 39, 8003-8010	7.2	7
75	Investigation of atypical molten pool dynamics in tungsten carbide-cobalt during laser deposition using in-situ thermal imaging. *Applied Physics Letters*, **2012**, 100, 034101	3.4	7
74	A comparative hierarchical decision framework on toxics use reduction effectiveness for electronic and electrical industries. *Environmental Science & Technology*, **2007**, 41, 373-9	10.3	7
73	Deformation of a ceramic/metal interface at the nanoscale. *Nanoscale*, **2016**, 8, 10541-7	7.7	7
72	Accommodation and formation of {1□012} twins in Mg-Y alloys. *Acta Materialia*, **2021**, 204, 116514	8.4	7
71	Microstructural development in DED stainless steels: applying welding models to elucidate the impact of processing and alloy composition. *Journal of Materials Science*, **2021**, 56, 762-780	4.3	7
70	Iron in solution with aluminum matrix after non-equilibrium processing: an atom probe tomography study. *Philosophical Magazine Letters*, **2017**, 97, 118-124	1	6
69	Toughening magnesium with gradient twin meshes. *Acta Materialia*, **2020**, 195, 468-481	8.4	6
68	High temperature compressive properties and microstructure of WC-Ni3Al cermets prepared by spark plasma sintering. *Vacuum*, **2020**, 175, 109281	3.7	6

67	Nanoscratch-induced deformation behaviour in B4C particle reinforced ultrafine grained Al alloy composites: a novel diagnostic approach. *Philosophical Magazine*, **2014**, 94, 1754-1763	1.6	6
66	An Efficient and Cost-Effective Method for Preparing Transmission Electron Microscopy Samples from Powders. *Microscopy and Microanalysis*, **2015**, 21, 1184-94	0.5	6
65	Spark plasma sintering of antimony-doped tin oxide (ATO) nanoceramics with high density and enhanced electrical conductivityPeer review under responsibility of The Ceramic Society of Japan and the Korean Ceramic Society.View all notes. *Journal of Asian Ceramic Societies*, **2013**, 1, 114-119	2.4	6
64	International harmonization of models for selecting less toxic chemical alternatives: Effect of regulatory disparities in the United States and Europe. *Integrated Environmental Assessment and Management*, **2012**, 8, 723-30	2.5	6
63	Process Cost Comparison for Conventional and Near-Net-Shape Cermet Fabrication. *Advanced Engineering Materials*, **2010**, 12, 235-241	3.5	6
62	Graphene Nano-Platelets Reinforced ZrO2 Consolidated by Spark Plasma Sintering. *Science of Advanced Materials*, **2016**, 8, 312-317	2.3	6
61	Study on high temperature deformation behavior of WC-10 wt %Ni3Al cemented carbide. *Journal of Alloys and Compounds*, **2020**, 820, 153156	5.7	6
60	An open framework for automated chemical hazard assessment based on GreenScreen for Safer Chemicals: A proof of concept. *Integrated Environmental Assessment and Management*, **2017**, 13, 167-176	2.5	5
59	Mechanical Behavior of a Tri-modal Al Matrix Composite. *Materials Research Society Symposia Proceedings*, **2005**, 880, 1		5
58	Solidification of spray atomized silicon droplets. *Scripta Metallurgica Et Materialia*, **1995**, 32, 1203-1208		5
57	Morphology, microstructure, and phase states in selective laser sintered lithium ion battery cathodes. *Journal of Materials Processing Technology*, **2021**, 288, 116827	5.3	5
56	Laser-based directed energy deposition (DED-LB) of advanced materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2022**, 840, 142967	5.3	5
55	In situ transmission electron microscopy investigation on <c + a> slip in Mg. *Journal of Materials Research*, **2019**, 34, 1499-1508	2.5	4
54	Novel fabrication of bulk Al with gradient grain size distributions via powder metallurgy. *Philosophical Magazine Letters*, **2015**, 95, 177-186	1	4
53	Effects of Sb oxidation state on the densification and electrical properties of antimony-doped tin oxide ceramics. *Journal of Materials Science: Materials in Electronics*, **2015**, 26, 4015-4020	2.1	4
52	Embracing the Chaos: Alloying Adds Stochasticity to Twin Embryo Growth. *Physical Review Letters*, **2020**, 125, 205503	7.4	4
51	Determination of Reliable Grain Boundary Orientation using Automated Crystallographic Orientation Mapping in the Transmission Electron Microscope. *Microscopy and Microanalysis*, **2015**, 21, 1663-1664	0.5	4
50	Critical grain size for nanocrystalline-to-amorphous phase transition in Al solid solution. *Philosophical Magazine Letters*, **2012**, 92, 235-244	1	4

49	Transition to Lead-Free Products in the US Electronics Industry: A Model of Environmental, Technical, and Economic Preferences. *Environmental Modeling and Assessment*, **2011**, 16, 107-118	2	4
48	Revealing the deformation mechanisms for room-temperature compressive superplasticity in nanocrystalline magnesium. *Materialia*, **2020**, 11, 100731	3.2	4
47	Revealing deformation mechanisms in MgY alloy by in situ deformation of nano-pillars with mediated lateral stiffness. *Journal of Materials Research*, **2019**, 34, 1542-1554	2.5	3
46	Microstructure and Mechanical Behavior of Cryomilled AlMg Composites Reinforced with Nanometric Yttria Partially Stabilized Zirconia. *Minerals, Metals and Materials Series*, **2018**, 71-86	0.3	3
45	Design parameters and environmental impact of printed wiring board manufacture. *Journal of Cleaner Production*, **2019**, 238, 117807	10.3	3
44	Strain Energy During Mechanical Milling: Part II. Experimental. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 4258-4265	2.3	3
43	Influence of Cryomilling on Microstructure, Phase Stability and Oxidation Behavior of NiCrAlY Bond Coat in Thermal Barrier Coatings: Experimentation and Mechanistic Investigation. *Materials Science Forum*, **2010**, 654-656, 1940-1943	0.4	3
42	The role of data source selection in chemical hazard assessment: A case study on organic photovoltaics. *Journal of Hazardous Materials*, **2019**, 365, 227-236	12.8	3
41	Bulk Nanostructured Metals from Ball Milling and Consolidation273-291		3
40	Lead Compounds **2008**, 151-167		3
39	Calorimetric Study with Uncertainty Analysis to Investigate the Precipitation Kinetics in a Nanostructured Al Composite. *Advanced Engineering Materials*, **2018**, 20, 1700728	3.5	2
38	Translating the materials genome into safer consumer products. *Environmental Science & Technology*, **2013**, 47, 12625-7	10.3	2
37	A test-rework process yield performance model for estimation of printed wiring board assembly cost. *International Journal of Production Economics*, **2009**, 119, 161-173	9.3	2
36	Research and Education in Green Materials: A multi-disciplinary program to bridge the gaps **2009**,		2
35	An integrated impact assessment and weighting methodology: Evaluation of the environmental consequences of lead-free solder alternatives **2008**,		2
34	Waste Management of Printed Wiring Boards: A Life Cycle Assessment of the Metals Recycling Chain from Liberation through Refining **2016**, 287-288		2
33	Environmental and economic evaluation of cathode ray tube (CRT) funnel glass waste management options in the United States **2016**, 309-310		2
32	Manipulating deformation mechanisms with Y alloying of Mg. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 817, 141373	5.3	2

31	Strategies to Approach Stabilized Plasticity in Metals with Diminutive Volume: A Brief Review. *Crystals*, **2016**, 6, 92	2.3	2
30	Mechanistic investigation into the role of aluminum diffusion in the oxidation behavior of cryomilled NiCrAlY bond coat. *Journal Wuhan University of Technology, Materials Science Edition*, **2016**, 31, 35-43	1	2
29	Multiscale phase homogeneity in bulk nanocrystalline high entropy oxides. *Journal of the European Ceramic Society*, **2021**, 41, 4850-4858	6	2
28	Microstructure, mechanical properties, and ionic conductivity of a solid-state electrolyte prepared using binderless laser powder bed fusion. *Journal of Materials Research*,1	2.5	2
27	Environmental benefit-detriment thresholds for flow battery energy storage systems: A case study in California. *Applied Energy*, **2021**, 300, 117354	10.7	2
26	The Economics of Silicon Carbide Whisker Fabrication1943-1951		2
25	The influence of laser directed energy deposition (DED) processing parameters for Al5083 studied by central composite design. *Journal of Materials Research and Technology*, **2022**, 17, 3157-3171	5.5	2
24	Multicriteria Decision Analysis Characterization of Chemical Hazard Assessment Data Sources. *Integrated Environmental Assessment and Management*, **2019**, 15, 895-908	2.5	1
23	Integrating toxicity reduction strategies for materials and components into product design: a case study on utility meters. *Integrated Environmental Assessment and Management*, **2013**, 9, 319-28	2.5	1
22	Effect of Oxygen Flow Rate on Electrical and Optical Properties of ATO Thin Films Prepared by RF Magnetron Sputtering. *Key Engineering Materials*, **2014**, 616, 178-182	0.4	1
21	Preparation of pore gradient silicon nitride ceramics by a high-velocity oxy-fuel spraying technique. *Journal of the Ceramic Society of Japan*, **2009**, 117, 445-448	1	1
20	Environmental and health assessment for California printed circuit board manufacturing: Providing guidance for pollution prevention opportunities **2008**,		1
19	Directed energy deposition of metal matrix composites: Computational and experimental comparison of powder particle flow behavior. *Journal of Materials Research and Technology*, **2022**, 16, 516-529	5.5	1
18	Study on Strain Rate‐Dependent Deformation Mechanism of WC‐10 wt% Ni3Al Cemented Carbide by Micropillar Compression. *Advanced Engineering Materials*, **2020**, 22, 1900953	3.5	1
17	The role of cell boundary orientation on mechanical behavior: A site-specific micro-pillar characterization study. *Additive Manufacturing*, **2021**, 46, 102154	6.1	1
16	Hidden transformations in entropy-stabilized oxides. *Journal of the European Ceramic Society*, **2021**, 41, 6660-6669	6	1
15	Advanced Silicon Nitride Components: A Cost Analysis. *Ceramic Engineering and Science Proceedings*,497-504	0.4	1
14	Visualization and validation of twin nucleation and early-stage growth in magnesium.. *Nature Communications*, **2022**, 13, 20	17.4	0

13	Growth of nanoporous high-entropy oxide thin films by pulsed laser deposition. *Journal of Materials Research*, **2022**, 37, 124-135	2.5	0
12	Potential Health Impact Assessment of Large-Scale Production of Batteries for the Electric Grid. *Minerals, Metals and Materials Series*, **2022**, 417-425	0.3	0
11	Techno-Economic Analysis of Material Costs for Emerging Flow Batteries. *Minerals, Metals and Materials Series*, **2022**, 449-460	0.3	0
10	Orientation-dependent superelasticity of a metastable high-entropy alloy. *Applied Physics Letters*, **2021**, 119, 161908	3.4	0
9	Room Temperature Deformation-induced Solute Segregation and its Impact on Twin Boundary Mobility in a Mg-Y Alloy. *Scripta Materialia*, **2022**, 209, 114375	5.6	0
8	Thickness-Dependent Microstructure in Additively Manufactured Stainless Steel. *Journal of Materials Engineering and Performance*, **2021**, 30, 6606-6617	1.6	0
7	Understanding the effect of cellular structures on mechanical behavior of additively manufactured 316L stainless steel. *Microscopy and Microanalysis*, **2021**, 27, 2678-2680	0.5	0
6	Consolidation and Behavior of FeCoV Soft Magnetic Materials via Spark Plasma Sintering **2019**, 473-491		
5	Waste Management of Printed Wiring Boards: A Life Cycle Assessment of the Metals Recycling Chain from Liberation Through Refining **2016**, 287-288		
4	Tensile Deformation and Fracture in a Bulk Nanostructured Al-5083/SiCp Composite at Elevated Temperatures. *Advanced Materials Research*, **2007**, 29-30, 245-248	0.5	
3	Environmental and Economic Evaluation of Cathode Ray Tube (CRT)Funnel Glass Waste Management Options in the United States **2016**, 309-310		
2	Nano-scale imaging and spectroscopy of interfaces in (Co,Cu,Mg,Ni,Zn)O high entropy oxides. *Microscopy and Microanalysis*, **2021**, 27, 2872-2874	0.5	
1	Cost Modeling and Analysis for Advanced Structural Silicon Nitride Turbomachinery Ceramics. *Ceramic Engineering and Science Proceedings*,208-216	0.1	