

Lawrence Murr

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/451131/lawrence-murr-publications-by-year.pdf>

Version: 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

253
papers

12,413
citations

51
h-index

106
g-index

253
ext. papers

13,488
ext. citations

4.5
avg, IF

6.4
L-index

#	Paper	IF	Citations
253	Shockwave Consolidation to Create Bulk Metallic Glass. <i>Minerals, Metals and Materials Series</i> , 2019 , 887-897	8.7	10
252	3D metal droplet printing development and advanced materials additive manufacturing. <i>Journal of Materials Research and Technology</i> , 2017 , 6, 77-89	5.5	64
251	Interplay between self-assembled structure of bone morphogenetic protein-2 (BMP-2) and osteoblast functions in three-dimensional titanium alloy scaffolds: Stimulation of osteogenic activity. <i>Journal of Biomedical Materials Research - Part A</i> , 2016 , 104, 517-32	5.4	51
250	Electron-beam additive manufacturing of high-temperature metals. <i>MRS Bulletin</i> , 2016 , 41, 752-757	3.2	7
249	Biocompatibility and mechanical behaviour of three-dimensional scaffolds for biomedical devices: process-structure-property paradigm. <i>International Materials Reviews</i> , 2016 , 61, 20-45	16.1	67
248	Frontiers of 3D Printing/Additive Manufacturing: from Human Organs to Aircraft Fabrication. <i>Journal of Materials Science and Technology</i> , 2016 , 32, 987-995	9.1	163
247	Recent progress in magnesium-titanium alloys. <i>International Materials Reviews</i> , 2015 , 60, 65-100	16.1	192
246	Interplay between cellular activity and three-dimensional scaffold-cell constructs with different foam structure processed by electron beam melting. <i>Journal of Biomedical Materials Research - Part A</i> , 2015 , 103, 1677-92	5.4	45
245	Metallurgy of additive manufacturing: Examples from electron beam melting. <i>Additive Manufacturing</i> , 2015 , 5, 40-53	6.1	136
244	Relationship of grain size and deformation mechanism to the fracture behavior in high strength-high ductility nanostructured austenitic stainless steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 626, 41-50	5.3	40
243	Multi-material metallic structure fabrication using electron beam melting. <i>International Journal of Advanced Manufacturing Technology</i> , 2014 , 71, 33-45	3.2	51
242	Influence of cell shape on mechanical properties of Ti-6Al-4V meshes fabricated by electron beam melting method. <i>Acta Biomaterialia</i> , 2014 , 10, 4537-47	10.8	206
241	Biological Response of Next-Generation of 3D Ti-6Al-4V Biomedical Devices Using Additive Manufacturing of Cellular and Functional Mesh Structures. <i>Journal of Biomaterials and Tissue Engineering</i> , 2014 , 4, 755-771	0.3	31
240	Microstructures of Niobium Components Fabricated by Electron Beam Melting. <i>Metallography, Microstructure, and Analysis</i> , 2013 , 2, 183-189	1.1	25
239	Microstructures and Hardness Properties for β -Phase Ti-4Nb-4Zr-0.9Sn Alloy Fabricated by Electron Beam Melting. <i>Journal of Materials Science and Technology</i> , 2013 , 29, 1011-1017	9.1	48
238	Microstructures and properties of solid and reticulated mesh components of pure iron fabricated by electron beam melting. <i>Journal of Materials Research and Technology</i> , 2013 , 2, 376-385	5.5	18
237	Microstructures of Rene 142 nickel-based superalloy fabricated by electron beam melting. <i>Acta Materialia</i> , 2013 , 61, 4289-4296	8.4	85

236	Metal Fabrication by Additive Manufacturing Using Laser and Electron Beam Melting Technologies. <i>Journal of Materials Science and Technology</i> , 2012 , 28, 1-14	9.1	978
235	Microstructures and Properties of 17-4 PH Stainless Steel Fabricated by Selective Laser Melting. <i>Journal of Materials Research and Technology</i> , 2012 , 1, 167-177	5.5	235
234	Correlating impact related residual microstructures through 2D computer simulations and microindentation hardness mapping: review. <i>Materials Science and Technology</i> , 2012 , 28, 1108-1126	1.5	11
233	In vivo corrosion, tumor outcome, and microarray gene expression for two types of muscle-implanted tungsten alloys. <i>Toxicology and Applied Pharmacology</i> , 2012 , 265, 128-38	4.6	29
232	Compression deformation behavior of Ti-6Al-4V alloy with cellular structures fabricated by electron beam melting. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012 , 16, 153-62	4.1	215
231	Fabrication of Metal and Alloy Components by Additive Manufacturing: Examples of 3D Materials Science. <i>Journal of Materials Research and Technology</i> , 2012 , 1, 42-54	5.5	300
230	Microstructures for Two-Phase Gamma Titanium Aluminide Fabricated by Electron Beam Melting. <i>Metallography, Microstructure, and Analysis</i> , 2012 , 1, 14-27	1.1	16
229	Contributions of Light Microscopy to Contemporary Materials Characterization: The New Directional Solidification. <i>Metallography, Microstructure, and Analysis</i> , 2012 , 1, 45-58	1.1	20
228	Shock-Wave Consolidation of Nanostructured Bismuth Telluride Powders. <i>Journal of Electronic Materials</i> , 2012 , 41, 1595-1600	1.9	11
227	Compression fatigue behavior of Ti6Al4V mesh arrays fabricated by electron beam melting. <i>Acta Materialia</i> , 2012 , 60, 793-802	8.4	200
226	Microstructures and mechanical behavior of Inconel 718 fabricated by selective laser melting. <i>Acta Materialia</i> , 2012 , 60, 2229-2239	8.4	679
225	Comparative microstructures and cytotoxicity assays for ballistic aerosols composed of micrometals and nanometals: respiratory health implications. <i>International Journal of Nanomedicine</i> , 2011 , 6, 167-78	7.3	10
224	Microstructure and mechanical properties of open-cellular biomaterials prototypes for total knee replacement implants fabricated by electron beam melting. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011 , 4, 1396-411	4.1	185
223	Materials characterization of railgun erosion phenomena. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 7552-7559	5.3	5
222	Novel precipitate microstructural architecture developed in the fabrication of solid copper components by additive manufacturing using electron beam melting. <i>Acta Materialia</i> , 2011 , 59, 4088-4099	8.4	140
221	Open-cellular copper structures fabricated by additive manufacturing using electron beam melting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 5379-5386	5.3	104
220	Optimization of the shear strengths of ultrasonically consolidated Ti/Al 3003 dual-material structures. <i>Journal of Materials Processing Technology</i> , 2011 , 211, 988-995	5.3	28
219	Evaluation of Titanium Alloys Fabricated Using Rapid Prototyping Technologies-Electron Beam Melting and Laser Beam Melting. <i>Materials</i> , 2011 , 4, 1776-1792	3.5	156

218	Microstructural and Process Characterization of Conductive Traces Printed from Ag Particulate Inks. <i>Materials</i> , 2011 , 4, 963-979	3.5	40
217	Open-Cellular Co-Base and Ni-Base Superalloys Fabricated by Electron Beam Melting. <i>Materials</i> , 2011 , 4, 782-790	3.5	19
216	Evidence of low-temperature superparamagnetism in Mn ₃ O ₄ nanoparticle ensembles. <i>Nanotechnology</i> , 2010 , 21, 365703	3.4	35
215	Characterization of Ti ₆ Al ₄ V open cellular foams fabricated by additive manufacturing using electron beam melting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 1861-1868	5.3	194
214	A Review of FSW Research on Dissimilar Metal and Alloy Systems. <i>Journal of Materials Engineering and Performance</i> , 2010 , 19, 1071-1089	1.6	162
213	Characterization of titanium aluminide alloy components fabricated by additive manufacturing using electron beam melting. <i>Acta Materialia</i> , 2010 , 58, 1887-1894	8.4	334
212	Nanoparticulate materials in antiquity: The good, the bad and the ugly. <i>Materials Characterization</i> , 2009 , 60, 261-270	3.9	17
211	Microstructures and mechanical properties of electron beam-rapid manufactured Ti ₆ Al ₄ V biomedical prototypes compared to wrought Ti ₆ Al ₄ V. <i>Materials Characterization</i> , 2009 , 60, 96-105	3.9	412
210	Imaging systems and materials characterization. <i>Materials Characterization</i> , 2009 , 60, 397-414	3.9	2
209	Microstructure and mechanical behavior of Ti-6Al-4V produced by rapid-layer manufacturing, for biomedical applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2009 , 2, 20-32	4.1	674
208	Microstructure evolution associated with adiabatic shear bands and shear band failure in ballistic plug formation in Ti ₆ Al ₄ V targets. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009 , 516, 205-216	5.3	110
207	Materials characterisation of bizarre and catastrophic 'burst' failure in metal by 'Hutchison Effect'. <i>Materials Research Innovations</i> , 2009 , 13, 425-430	1.9	
206	Metallurgical and acoustical characterization of a hydroformed, 304 stainless steel, Caribbean-style musical pan. <i>Materials Characterization</i> , 2008 , 59, 321-328	3.9	2
205	Characterization of micro and nano two-phase regimes created by explosive shock-wave consolidation of powder mixtures. <i>Materials Characterization</i> , 2008 , 59, 1152-1160	3.9	16
204	Characterization of 3-phase (ternary-like) n-type and p-type thermoelectric materials fabricated by explosive (shock-wave) consolidation. <i>Materials Characterization</i> , 2008 , 59, 1258-1272	3.9	11
203	Microstructures and nanostructures for environmental carbon nanotubes and nanoparticulate soots. <i>International Journal of Environmental Research and Public Health</i> , 2008 , 5, 321-36	4.6	21
202	Cytotoxic responses and potential respiratory health effects of carbon and carbonaceous nanoparticulates in the Paso del Norte airshed environment. <i>International Journal of Environmental Research and Public Health</i> , 2008 , 5, 12-25	4.6	33
201	Stability comparison of simulated double-walled carbon nanotube structures. <i>Carbon</i> , 2008 , 46, 2083-2095.4	5.4	15

200	Cytotoxic effects of aggregated nanomaterials. <i>Acta Biomaterialia</i> , 2007 , 3, 351-8	10.8	254
199	CHARACTERIZATION AND COMPARISON OF SPECIATED ATMOSPHERIC CARBONACEOUS PARTICULATES AND THEIR POLYCYCLIC AROMATIC HYDROCARBON CONTENTS IN THE CONTEXT OF THE PASO DEL NORTE AIRSHED ALONG THE U.S.-MEXICO BORDER. <i>Polycyclic Aromatic Compounds</i> , 2007 , 27, 361-400	1.3	12
198	Fabrication of an aluminum, Caribbean-style, musical pan: Metallurgical and acoustical characterization. <i>Materials Characterization</i> , 2006 , 57, 232-243	3.9	2
197	Carbon nanotubes in wood soot. <i>Atmospheric Science Letters</i> , 2006 , 7, 93-95	2.4	38
196	Deformation effects in shocked metals and alloys. <i>Materials Science and Technology</i> , 2006 , 22, 438-452	1.5	19
195	Combustion-generated nanoparticulates in the El Paso, TX, USA / Juarez, Mexico Metroplex: their comparative characterization and potential for adverse health effects. <i>International Journal of Environmental Research and Public Health</i> , 2006 , 3, 48-66	4.6	34
194	End cap nucleation of carbon nanotubes. <i>Carbon</i> , 2006 , 44, 447-455	10.4	39
193	Solid-state flow, mechanical alloying, and melt-related phenomena for [0 0 1] single-crystal W ballistic rod penetrators interacting with steel targets. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 428, 301-313	5.3	15
192	Experimental observations and computer simulations for metallic projectile fragmentation and impact crater development in thick metal targets. <i>International Journal of Impact Engineering</i> , 2006 , 32, 1981-1999	4	36
191	Biological effects of nanoparticulate materials. <i>Materials Science and Engineering C</i> , 2006 , 26, 1421-1427	8.3	37
190	Grain boundary contributions to deformation and solid-state flow in severe plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 409, 13-23	5.3	23
189	TEM observations of a 30 million year old mountain leather nanofiber mineral composite. <i>Materials Characterization</i> , 2005 , 54, 458-465	3.9	9
188	A TEM study of soot, carbon nanotubes, and related fullerene nanopolyhedra in common fuel-gas combustion sources. <i>Materials Characterization</i> , 2005 , 55, 50-65	3.9	83
187	Carbon nanotubes and other fullerenes produced from tire powder injected into an electric arc. <i>Materials Characterization</i> , 2005 , 55, 371-377	3.9	15
186	Comparative in vitro cytotoxicity assessment of some manufactured nanoparticulate materials characterized by transmission electron microscopy. <i>Journal of Nanoparticle Research</i> , 2005 , 7, 145-169	2.3	187
185	Carbon nanotubes and other fullerene nanocrystals in domestic propane and natural gas combustion streams. <i>Journal of Nanoscience and Nanotechnology</i> , 2004 , 4, 716-8	1.3	39
184	A TEM analysis of nanoparticulates in a Polar ice core. <i>Materials Characterization</i> , 2004 , 52, 15-25	3.9	42
183	Collection and characterization of airborne nanoparticulates. <i>Materials Characterization</i> , 2004 , 52, 1-14	3.9	10

182	Characterization of tool wear and weld optimization in the friction-stir welding of cast aluminum 359+20% SiC metal-matrix composite. <i>Materials Characterization</i> , 2004 , 52, 65-75	3.9	131
181	Microstructures in friction-stir welded dissimilar magnesium alloys and magnesium alloys to 6061-T6 aluminum alloy. <i>Materials Characterization</i> , 2004 , 52, 49-64	3.9	186
180	Effect of uniaxial deformation to 50% on the sensitization process in 316 stainless steel. <i>Materials Characterization</i> , 2004 , 53, 79-82	3.9	10
179	Characterization of nanostructure phenomena in airborne particulate aggregates and their potential for respiratory health effects. <i>Journal of Materials Science: Materials in Medicine</i> , 2004 , 15, 237-45	4.5	33
178	Chemistry and nanoparticulate compositions of a 10,000 year-old ice core melt water. <i>Water Research</i> , 2004 , 38, 4282-96	12.5	58
177	Characterization and Comparison of Carbon and Asbestos Nanotubes. <i>Microscopy and Microanalysis</i> , 2004 , 10, 412-413	0.5	1
176	TEM Observations of Carbon Nanotubes and Related Nanocrystal Aggregates Collected from Domestic and Commercial Fuel Gas Combustion Sources. <i>Microscopy and Microanalysis</i> , 2004 , 10, 410-411	0.5	1
175	Self-optimization in tool wear for friction-stir welding of Al 6061+20% Al ₂ O ₃ MMC. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003 , 349, 156-165	5.3	130
174	Dynamic recrystallization-induced flow phenomena in tungsten-tantalum (4%) [001] single-crystal rod ballistic penetrators. <i>Materials Characterization</i> , 2002 , 48, 407-421	3.9	22
173	Flow patterns during friction stir welding. <i>Materials Characterization</i> , 2002 , 49, 95-101	3.9	403
172	Microbands and microtwins associated with impact craters in copper and brass targets: the role of stacking fault energy. <i>Materials Characterization</i> , 2002 , 49, 359-366	3.9	19
171	Comparison of tungsten heavy-alloy rod penetration into ductile and hard metal targets: microstructural analysis and computer simulations. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002 , 325, 131-143	5.3	43
170	Comparison of residual microstructures associated with impact craters in fcc stainless steel and bcc iron targets: the microtwin versus microband issue. <i>Acta Materialia</i> , 2002 , 50, 121-131	8.4	39
169	Atmospheric nanoparticles: Preliminary studies and potential respiratory health risks for emerging nanotechnologies. <i>Journal of Materials Science Letters</i> , 2002 , 21, 361-366		17
168	Deformation twins associated with impact craters in polycrystalline iron targets. <i>Journal of Materials Science Letters</i> , 2002 , 21, 559-563		5
167	Friction-stir welding of magnesium alloy AZ31B. <i>Journal of Materials Science Letters</i> , 2002 , 21, 917-920		124
166	Microstructural characterization of TiB ₂ armor targets. <i>Journal of Materials Science Letters</i> , 2002 , 21, 1661-1666		15
165	Evaluation of mechanical and corrosion biocompatibility of TiTa alloys. <i>Journal of Materials Science: Materials in Medicine</i> , 2001 , 12, 283-92	4.5	42

164	Elastic interactions and the metallurgical and acoustic effects of carbon in the Caribbean steel drum. <i>Materials Characterization</i> , 2001 , 47, 325-363	3.9	9
163	Metallography in music. <i>Materials Characterization</i> , 2000 , 45, 341-351	3.9	2
162	Friction-stir welding of aluminum alloy 2024 to silver. <i>Journal of Materials Science Letters</i> , 2000 , 19, 1047-1051	5.0	
161	A study of alternative metal particle structures and mixtures for dental amalgams based on mercury additions. <i>Journal of Materials Science: Materials in Medicine</i> , 2000 , 11, 469-79	4.5	5
160	Flow visualization and residual microstructures associated with the friction-stir welding of 2024 aluminum to 6061 aluminum. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999 , 271, 213-223	5.3	246
159	Glastic Composite Prototypes: A Materials Alternative for Recycling Plastic and Glass Waste. <i>Materials Technology</i> , 1998 , 5, 159-169		1
158	Heat Input and Temperature Distribution in Friction Stir Welding. <i>Journal of Materials Processings and Manufacturing Science</i> , 1998 , 7, 163-172		209
157	Microstructures in Friction-Stir Welded Metals. <i>Journal of Materials Processings and Manufacturing Science</i> , 1998 , 7, 145-161		22
156	Novel deformation processes and microstructures involving ballistic penetrator formation and hypervelocity impact and penetration phenomena. <i>Materials Characterization</i> , 1996 , 37, 245-276	3.9	33
155	Microbands and shear-related microstructural phenomena associated with impact craters in 6061-T6 aluminum. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1996 , 216, 69-79	5.3	28
154	Deformation and deformation-specific microstructures associated with a hypervelocity impact crater in copper. <i>Journal of Materials Science Letters</i> , 1995 , 14, 685		8
153	LEDS in ultra-high strain-rate deformation. <i>Physica Status Solidi A</i> , 1995 , 149, 253-274		21
152	Combined effects of deformation (strain and strain state), grain size, and carbon content on carbide precipitation and corrosion sensitization in 304 stainless steel. <i>Materials Characterization</i> , 1995 , 35, 99-112	3.9	74
151	Torque-related lamellar carbide growth associated with annealing twins in 304 stainless steel. <i>Acta Metallurgica Et Materialia</i> , 1995 , 43, 461-469		15
150	A comparison of shaped charge liner cone and recovered jet fragment microstructures to elucidate dynamic recrystallization phenomena. <i>Scripta Metallurgica Et Materialia</i> , 1995 , 32, 31-36		5
149	Measuring hypervelocity impact velocity from micrometeoroid crater geometry. <i>International Journal of Impact Engineering</i> , 1994 , 15, 785-795	4	5
148	Dynamic recrystallization in detonating tantalum shaped charges: A mechanism for extreme plastic deformation. <i>Materials Characterization</i> , 1994 , 33, 65-74	3.9	26
147	Residual microstructures in explosively formed tantalum penetrators. <i>Scripta Metallurgica Et Materialia</i> , 1994 , 31, 297-302		17

146	Some observations of multi-layer penetration by micrometeoroid particles in low-earth orbit. <i>Scripta Metallurgica Et Materialia</i> , 1994 , 31, 1409-1413		1
145	Deformation-induced microstructure and martensite effects on transgranular carbide precipitation in type 304 stainless steels. <i>Acta Metallurgica Et Materialia</i> , 1993 , 41, 2589-2600		13
144	Dynamic recrystallization in the shaped charge regime. <i>Scripta Metallurgica Et Materialia</i> , 1993 , 29, 567-572		18
143	Transport critical current densities in shock-loaded and thermally processed YBa ₂ Cu ₃ O ₇ . <i>Journal of Materials Science Letters</i> , 1993 , 12, 170-172		1
142	Characterization and comparison of microstructures in the shaped-charge regime: copper and tantalum. <i>Materials Characterization</i> , 1993 , 30, 201-216	3.9	29
141	Deformation effects on interfacial carbide precipitation and chromium-depletion in type 304 stainless steel. <i>Scripta Metallurgica Et Materialia</i> , 1992 , 27, 1759-1764		9
140	Transmission electron microscopy of scratch-induced surface deformation microstructures in austenitic Fe-Cr-Ni alloys. <i>Scripta Metallurgica Et Materialia</i> , 1992 , 26, 1181-1186		7
139	Novel technique for observing microstructural phenomena associated with micrometeoroid impact craters in stainless steel. <i>Scripta Metallurgica Et Materialia</i> , 1992 , 27, 919-924		4
138	Cracking associated with micrometeoroid impact craters in anodized aluminum alloy clamps on LDEF. <i>Scripta Metallurgica Et Materialia</i> , 1992 , 27, 101-106		2
137	A surface deformation region on mechanically polished surfaces of 316 stainless steels: Its effects on the sensitization of the alloy. <i>Scripta Metallurgica Et Materialia</i> , 1992 , 26, 489-494		8
136	Preparation of superconducting YBa ₂ Cu ₃ O _{7-x} powders by a solution technique. <i>Journal of Materials Science: Materials in Electronics</i> , 1992 , 3, 181-186	2.1	9
135	A transmission electron microscope study of deformed and fractured commercial grade beryllium. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1992 , 151, 179-187	5.3	2
134	Characterization of microstructures contributing to degradation of superconductivity in explosively fabricated high T _c superconductors. <i>Materials Characterization</i> , 1991 , 27, 91-110	3.9	2
133	Effect of shock pressure on superconductivity in explosively fabricated YBaCuO/metal matrix composites. <i>Physica Status Solidi A</i> , 1991 , 123, 507-526		7
132	Correlating levitation height and diamagnetic shielding signal with residual superconductivity in explosively fabricated YBa ₂ Cu ₃ O ₇ . <i>Journal of Materials Science Letters</i> , 1991 , 10, 52-55		1
131	Deformation site-specific nature of strain-induced transgranular carbide precipitation in type 316 stainless steels. <i>Scripta Metallurgica Et Materialia</i> , 1991 , 25, 349-353		6
130	Dislocations in palladium. <i>Scripta Metallurgica Et Materialia</i> , 1991 , 25, 575-578		2
129	Solution annealing effects on sensitization of 316 stainless steels. <i>Scripta Metallurgica Et Materialia</i> , 1991 , 25, 2221-2226		10

128	Effects of deformation (strain) and heat treatment on grain boundary sensitization and precipitation in austenitic stainless steels. <i>Materials Characterization</i> , 1990 , 24, 135-158	3.9	27
127	Thermal recovery in shock-wave modified copper-oxide superconductors. <i>Journal of Materials Science Letters</i> , 1990 , 9, 1103-1105		1
126	Shock-wave-induced degradation of superconductivity and localized lattice defects in explosively fabricated YBa ₂ Cu ₃ O ₇ . <i>Solid State Communications</i> , 1990 , 73, 695-700	1.6	6
125	Comparison of bulk DC and microwave surface resistance of explosively fabricated Y-Ba-Cu-O and Bi-Pb-Sr-Ca-Cu-O metal-matrix composite superconductors. <i>Superconductor Science and Technology</i> , 1990 , 3, 173-179	3.1	1
124	Shock wave induced changes in superconductivity in YBa ₂ Cu ₃ O ₇ <i>Applied Physics Letters</i> , 1989 , 55, 1575-1577	3.4	24
123	Interfacial phenomena and microstructural connectivity in explosively fabricated Y-Ba-Cu-O superconductors. <i>Journal of Superconductivity and Novel Magnetism</i> , 1988 , 1, 3-19		12
122	Comparison of residual microstructures for 304 stainless steel shock loaded in plane and cylindrical geometries: Implications for dynamic compaction and forming. <i>Acta Metallurgica</i> , 1985 , 33, 677-684		32
121	Heat treatment of explosively consolidated molybdenum: TEM studies. <i>Journal of Materials Science Letters</i> , 1984 , 3, 15-17		2
120	The role of iron in metal sulfide leaching by galvanic interaction. <i>Biotechnology and Bioengineering</i> , 1983 , 25, 1175-9	4.9	8
119	Nucleation and evolution of strain-induced martensitic (b.c.c.) embryos and substructure in stainless steel: A transmission electron microscope study. <i>Acta Metallurgica</i> , 1983 , 31, 267-274		138
118	Modern developments in coatings characterization and microanalysis involving electron and ion beam applications. <i>Thin Solid Films</i> , 1983 , 108, 47-59	2.2	3
117	Structure and hardness of explosively consolidated molybdenum. <i>Materials Science and Engineering</i> , 1983 , 57, 107-111		16
116	The effect of polycrystallinity on the shock wave response of Fe-34.5wt.%Ni and Fe-15wt.%Cr-15wt.%Ni. <i>Materials Science and Engineering</i> , 1983 , 57, 113-126		11
115	Comments on: Deformation twins in punched specimens of a 321 steel. <i>Scripta Metallurgica</i> , 1983 , 17, 423-424		1
114	Explosive consolidation of an amorphous iron-base powder. <i>Scripta Metallurgica</i> , 1983 , 17, 1353-1357		33
113	Large strain plastic deformation of commercially pure nickel. <i>Metal Science</i> , 1983 , 17, 198-208		37
112	Fundamental studies of the contribution of galvanic interaction to acid-bacterial leaching of mixed metal sulfides. <i>Hydrometallurgy</i> , 1983 , 9, 235-256	4	136
111	ε-Martensite morphology in shock-loaded type 304 stainless steel. <i>Scripta Metallurgica</i> , 1982 , 16, 713-716		12

110	Interfacial phenomena in solar materials. <i>Materials Science and Engineering</i> , 1982 , 53, 25-36		1
109	Acid-bacterial and ferric sulfate leaching of pyrite single crystals. <i>Biotechnology and Bioengineering</i> , 1982 , 24, 83-96	4.9	38
108	Kinetic study of sulfide leaching by galvanic interaction between chalcopyrite, pyrite, and sphalerite in the presence of <i>T. ferrooxidans</i> (30 degrees C) and a thermophilic microorganism (55 degrees C). <i>Biotechnology and Bioengineering</i> , 1982 , 24, 919-40	4.9	69
107	Electron diffraction studies of thin secondary product films on electrochemically reacting metal sulfides. <i>Thin Solid Films</i> , 1982 , 95, 175-183	2.2	5
106	Characterization of leaching reactions involving metal sulfides in wastes and concentrates utilizing electron microscopy and microanalysis techniques. <i>Resources and Conservation</i> , 1982 , 9, 45-57		3
105	Basic research needs and opportunities for characterizing the microstructure and microchemistry of interfaces. <i>Materials Science and Engineering</i> , 1982 , 53, 149-162		1
104	Structure and properties of tensile cracks in stainless steel films: In-situ, high-voltage electron microscope studies. <i>International Journal of Fracture</i> , 1982 , 20, 117-131	2.3	3
103	Microstructural and mechanical property evaluation of black-chrome coated solar collectors III. <i>Solar Energy Materials and Solar Cells</i> , 1981 , 4, 333-358		18
102	Dynamic in situ high voltage electron microscopy studies of tensile cracks in thin stainless steel films. <i>Thin Solid Films</i> , 1981 , 84, 131-141	2.2	
101	Interfacial phenomena in solar materials. <i>Solar Energy Materials and Solar Cells</i> , 1981 , 5, 1-19		4
100	Microstructural and mechanical property evaluation of zinc oxide coated solar collectors. <i>Solar Energy Materials and Solar Cells</i> , 1981 , 4, 309-332		12
99	Strain-induced dislocation emission from grain boundaries in stainless steel. <i>Materials Science and Engineering</i> , 1981 , 51, 71-79		38
98	Laser-induced phase transitions in amorphous Fe ₈₀ B ₂₀ alloy. <i>Materials Science and Engineering</i> , 1981 , 51, 101-110		8
97	Explosive shock deformation of metallic glasses. <i>Materials Science and Engineering</i> , 1981 , 49, 57-64		16
96	Kinetic effects of particle-size and crystal dislocation density on the dichromate leaching of chalcopyrite. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , 1981 , 12, 255-267		43
95	Effect of prestrain and stacking-fault energy on the application of the Hall-Petch relation in fcc metals and alloys. <i>Metallography</i> , 1980 , 13, 203-224		29
94	Characterization of selective solar absorber microstructures: Electron microscope studies. <i>Thin Solid Films</i> , 1980 , 72, 111-120	2.2	9
93	Morphological and ultrastructural study of the cell envelope of thermophilic and acidophilic microorganisms as compared to <i>Thiobacillus ferrooxidans</i> . <i>Biotechnology and Bioengineering</i> , 1980 , 22, 2543-2555	4.9	8

92	The effect of prior deformation on the residual microstructure of explosively deformed stainless steels. <i>Materials Science and Engineering</i> , 1980 , 44, 97-113		27
91	Field ion microscope studies of the propagation of substrate grain boundaries into an overgrowth. <i>Thin Solid Films</i> , 1980 , 72, 161-170	2.2	2
90	Kinetics of leaching chalcopyrite-bearing waste rock with thermophilic and mesophilic bacteria. <i>Hydrometallurgy</i> , 1980 , 5, 337-354	4	12
89	A transmission electron microscopy study of particulate concentrations in seven individual snowflakes. <i>Cold Regions Science and Technology</i> , 1980 , 3, 39-43	3.8	2
88	Microstructural and mechanical property evaluation of black-chrome coated solar collectors. <i>Solar Energy Materials and Solar Cells</i> , 1979 , 2, 177-199		15
87	Crystal defects in coatings and their influence on coating properties. <i>Thin Solid Films</i> , 1979 , 64, 77-90	2.2	6
86	Interactive effects of shock loading parameters on the substructure and mechanical properties of nickel and stainless steel. <i>Materials Science and Engineering</i> , 1979 , 37, 249-269		42
85	Future microelectronic devices: materials aspects and interfacial phenomena. <i>Microelectronics Journal</i> , 1979 , 10, 12-19	1.8	
84	The role of substrate dislocations and grain boundaries in the nucleation and growth of thin electrochemical overgrowths. TEM and FIM studies. <i>Physica Status Solidi A</i> , 1979 , 51, 345-358		7
83	Influence of deposit morphology on the kinetics of copper cementation on pure iron. <i>Hydrometallurgy</i> , 1979 , 4, 57-82	4	42
82	Observations of solution transport, permeability, and leaching reactions in large, controlled, copper-bearing waste bodies. <i>Hydrometallurgy</i> , 1979 , 5, 67-93	4	13
81	Observations of a natural thermophilic microorganism in the leaching of a large, experimental, copper-bearing waste body. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , 1979 , 10, 523-531		11
80	Effect of Grain size, dislocation cell size and deformation twin spacing on the residual strengthening of shock-loaded nickel. <i>Materials Science and Engineering</i> , 1979 , 39, 81-93		52
79	Anomalous residual shock hardening in nickel and stainless steel at a short pulse duration. <i>Scripta Metallurgica</i> , 1979 , 13, 993-997		10
78	Shock-induced cracks in molybdenum sheet. <i>Journal of Applied Physics</i> , 1979 , 50, 813-817	2.5	2
77	Effect of environmental parameters on the efficiency of biodegradation of basalt rock by fungi. <i>Biotechnology and Bioengineering</i> , 1979 , 21, 875-885	4.9	40
76	Comparison of copper solubilization from chalcopyrite waste using thiobacillus ferrooxidans and a natural thermophilic microorganism: Laboratory studies. <i>Biotechnology and Bioengineering</i> , 1979 , 21, 1685-1688	4.9	2
75	Characterization of copper nucleation and growth from aqueous solution on aluminum: A transmission electron microscopy study of copper cementation. <i>Thin Solid Films</i> , 1978 , 54, 189-195	2.2	4

74	Effect of shock pressure, pulse duration, and grain size on shock-deformation twinning in molybdenum. <i>Materials Science and Engineering</i> , 1978 , 35, 273-285		59
73	The influence of grain boundary ledge density on the flow stress in nickel. <i>Materials Science and Engineering</i> , 1978 , 33, 69-80		15
72	The effects of kinetic variables on the structure of copper deposits cemented on pure aluminum discs: A scanning electron microscopic study. <i>Hydrometallurgy</i> , 1978 , 3, 163-180	4	34
71	Effects of the source of chloride ion and surface corrosion patterns on the kinetics of the copper-aluminum cementation system. <i>Hydrometallurgy</i> , 1978 , 3, 249-263	4	18
70	Galvanic interaction between chalcopyrite and pyrite during bacterial leaching of low-grade waste. <i>Hydrometallurgy</i> , 1978 , 3, 309-326	4	101
69	Contrast phenomena and the identification of grain boundary ledges. <i>Metallography</i> , 1978 , 11, 61-79		18
68	Experimental and theoretical observations on the relationship between dislocation cell size, dislocation density, residual hardness, peak pressure and pulse duration in shock-loaded nickel. <i>Acta Metallurgica</i> , 1978 , 26, 847-857		107
67	A model for the formation of annealing twins in F.C.C. metals and alloys. <i>Acta Metallurgica</i> , 1978 , 26, 951-962		175
66	An Electron Microscopic Study of Nucleation and Growth in Electrochemical Displacement Reactions: A Comparison of the Cu/Fe and Cu/Al Cementation Systems. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , 1978 , 9, 515-525		13
65	Work hardening and the pressure dependence of dislocation density and arrangements in shock loaded nickel and copper. <i>Scripta Metallurgica</i> , 1978 , 12, 201-206		50
64	Effect of peak pressure and pressure-pulse duration on crystallographic transformations in shock-loaded metals and alloys. <i>Scripta Metallurgica</i> , 1978 , 12, 425-429		10
63	A critical evaluation of the effect of electric fields on the residual structure of vapor-deposited metal films. <i>Journal of Applied Physics</i> , 1978 , 49, 929-931	2.5	6
62	Laser-shock-induced microstructural changes and a comparison with explosive-shock-induced phenomena in metals: Field-ion and electron microscopic studies. <i>Journal of Applied Physics</i> , 1978 , 49, 2427	2.5	24
61	The nucleation and growth of thin films on sodium chloride cleavage steps. <i>Thin Solid Films</i> , 1977 , 42, 353-360	2.2	
60	Variation of laser mirror metal microstructure and its effect on reflectivity at 10.6 μ m. <i>Physica Status Solidi A</i> , 1977 , 40, 211-224		7
59	The detection and analysis of particulates in municipal water supplies by transmission electron microscopy. <i>Water Research</i> , 1976 , 10, 469-477	12.5	8
58	The temperature dependence of adhesive energy in some metal-ceramic systems. <i>Scripta Metallurgica</i> , 1976 , 10, 299-302		2
57	Variations in grain boundary ledge structure with thermo-mechanical treatment in high-purity aluminum. <i>Scripta Metallurgica</i> , 1976 , 10, 477-480		23

56	Direct observations of selective attachment of bacteria on low-grade sulfide ores and other mineral surfaces. <i>Hydrometallurgy</i> , 1976 , 2, 11-24	4	62
55	Variation of the solid-solid-nickel-thoria interfacial free energy with temperature. <i>Metallography</i> , 1976 , 9, 33-41		
54	Direct observations of vacancies and vacancy-type defects in molybdenum following uniaxial shock-wave compression. <i>Acta Metallurgica</i> , 1976 , 24, 261-270		42
53	Fundamental studies of the structure and growth of electrodeposited nickel. <i>Thin Solid Films</i> , 1976 , 37, 387-406	2.2	13
52	The role of grain-boundary structure in shock-induced spallation of molybdenum. <i>Journal of Applied Physics</i> , 1976 , 47, 1364-1369	2.5	10
51	Vacancies and vacancy clusters in shock-loaded molybdenum: Direct observations by transmission electron and field-ion microscopy. <i>Applied Physics Letters</i> , 1976 , 28, 432-434	3.4	13
50	A simple kinetic model for sulfuric acid leaching of copper from chrysocolla. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , 1975 , 6, 435-440		6
49	Bacterial attachment to molybdenite: An electron microscope study. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , 1975 , 6, 488-490		11
48	Effect of shock-stress duration on the residual structure and hardness of nickel, chromel and inconel. <i>Materials Science and Engineering</i> , 1975 , 19, 115-122		27
47	Effect of stress amplitude and stress duration on twinning and phase transformations in shock-loaded and cold-rolled 304 stainless steel. <i>Materials Science and Engineering</i> , 1975 , 20, 35-46		51
46	Comments on "The surface and grain boundary energies of iron, cobalt and Nickel" <i>Materials Science and Engineering</i> , 1975 , 20, 291-292		1
45	The nature of microstructural voids and occlusion-like contrast phenomena in MoS ₂ . <i>Metallography</i> , 1975 , 8, 337-341		1
44	Measurement of the shear modulus for Ni from sintering experiments in the range 1320-1420°C. <i>Scripta Metallurgica</i> , 1975 , 9, 301-305		4
43	An electron microscope study of coarse M23C6 phase regions in a two-phase alloy steel. <i>Scripta Metallurgica</i> , 1975 , 9, 331-338		
42	Measurement of the high-temperature self-diffusion coefficients in sintered nickel. <i>Scripta Metallurgica</i> , 1975 , 9, 811-814		
41	Residual crystallinity of vapor-deposited tin films. <i>Thin Solid Films</i> , 1974 , 20, 81-89	2.2	8
40	Comments on: Temperature dependence of surface energy of liquid iron and nickel. <i>Scripta Metallurgica</i> , 1974 , 8, 631-633		2
39	Effect of shock-stress duration on the hardening of Cu ₃ Al alloys. <i>Scripta Metallurgica</i> , 1974 , 8, 1477-1480		4

38	Note on the electropolishing of iridium foils for transmission electron microscopy. Some additional techniques. <i>Journal of the Less Common Metals</i> , 1974 , 34, 177-179		5
37	A critique of a recent thin-film field-effect experiment using detached electrodes. <i>Applied Physics Letters</i> , 1974 , 24, 354-355	3-4	3
36	Yielding and grain-boundary ledges: Some comments on the Hall-Petch relation. <i>Applied Physics Letters</i> , 1974 , 24, 533-536	3-4	26
35	Characterization of natural pyrolusite by electron microscopy. <i>Contributions To Mineralogy and Petrology</i> , 1974 , 45, 251-256	3-5	2
34	Transmission electron microscope study of crystal defects in natural fluorite. <i>Physica Status Solidi A</i> , 1974 , 22, 239-251		30
33	Image overlap in field-ion microscopy. <i>Physica Status Solidi A</i> , 1974 , 23, K1-K2		
32	Twin boundary energetics in pure aluminium. <i>Acta Metallurgica</i> , 1973 , 21, 791-797		56
31	The role of depleted zones in neutron irradiated metals. <i>Physica Status Solidi A</i> , 1973 , 17, K93-K96		
30	Measurement of interfacial free energies and associated temperature coefficients in 304 stainless steel. <i>Acta Metallurgica</i> , 1973 , 21, 595-604		59
29	Measurement of interfacial energy of adhesion by scanning electron microscopy. <i>Materials Science and Engineering</i> , 1973 , 12, 277-283		28
28	Scanning electron microscope study of laser-damaged beryllium thin films. <i>Journal of Applied Physics</i> , 1973 , 44, 1722-1726	2.5	11
27	Significance of Electric Fields on the Growth of Thin Metal Films. <i>Applied Physics Letters</i> , 1972 , 20, 512-514	3-4	6
26	Activation energy and saturation density for In and Sn thin films on NaCl substrates. <i>Scripta Metallurgica</i> , 1972 , 6, 333-337		3
25	Temperature coefficient of twin-boundary energy: The determination of stacking-fault energy from the coherent twin-boundary energy in pure F.C.C. metals. <i>Scripta Metallurgica</i> , 1972 , 6, 203-208		73
24	A field-ion microscope study of vapour-deposited platinum. <i>Thin Solid Films</i> , 1972 , 9, 241-256	2.2	14
23	Measurement of absolute interfacial free energies in a NiCr alloy. <i>Surface Science</i> , 1971 , 26, 184-196	1.8	15
22	Origin of image streaks in field ion microscopy. <i>Physica Status Solidi A</i> , 1971 , 4, 159-172		6
21	Effects of substrate temperature, pressure, and high evaporation rates on nucleation, epitaxy, and structure of palladium thin films. <i>Thin Solid Films</i> , 1971 , 7, 101-115	2.2	14

20	Comparison of residual defect structures and hardness in Inconel 600 following deformation by explosive shock loading, cylindrical (explosive) expansion, and cold-reduction. <i>Materials Science and Engineering</i> , 1971 , 7, 278-285		2
19	Comparison of recovery, recrystallization, and grain-growth characteristics in shock-loaded, explosively-expanded, and cold-rolled inconel 600. <i>Materials Science and Engineering</i> , 1971 , 7, 286-295		3
18	Scanning electron microscopy of earthquake-induced rail fractures. <i>Metallography</i> , 1971 , 4, 477-486		
17	Field Ion Microscopy of Graphite Fibers. <i>Journal of Applied Physics</i> , 1971 , 42, 3487-3493	2.5	20
16	Thermal recovery of explosive shock-loaded Ni, TD-Ni, Chromel-A, Inconel 600 and TD-NiCr. <i>Acta Metallurgica</i> , 1970 , 18, 1047-1052		15
15	Structure and energetics of vapor-deposited Indium films. <i>Physica Status Solidi A</i> , 1970 , 1, 487-498		4
14	Relative interfacial free energy measurements in Cu and Cu-Al alloys. <i>Physica Status Solidi A</i> , 1970 , 3, 447-455		11
13	Technique for the Direct Observation of Residual Defect Structures in Explosive Loaded Metal Cylinders. <i>Review of Scientific Instruments</i> , 1970 , 41, 8-10	1.7	6
12	The role of point defects in the thermal recovery of shock-loaded metals and alloys. <i>Scripta Metallurgica</i> , 1970 , 4, 183-187		16
11	Shock Deformation of Inconel 600 Alloy: Effect of Fine Coherent Precipitates on Explosive-Shock Hardening. <i>Journal of Applied Physics</i> , 1969 , 40, 3796-3802	2.5	24
10	Defect microstructure and mechanical properties in shock-hardened metals. <i>Experimental Mechanics</i> , 1969 , 9, 145-155	2.6	47
9	Energetics of Grain-Boundary Triple Junctions and Corner-Twinned Junctions: Transmission Electron Microscope Studies. <i>Journal of Applied Physics</i> , 1968 , 39, 5557-5566	2.5	17
8	Shock-induced deformation faults in 70/30 copper-zinc alloy. <i>Journal Physics D: Applied Physics</i> , 1968 , 1, 1437-1443	3	4
7	Investigation of grain boundary energetics in Er ₂ O ₃ thin foils by transmission electron microscopy. <i>Physica Status Solidi (B): Basic Research</i> , 1968 , 25, 629-640	1.3	11
6	Calibration and Use of an Electron Microscope for Precision Micromasurements in Thin Film Materials. <i>Physica Status Solidi (B): Basic Research</i> , 1967 , 19, 7-34	1.3	17
5	Study of Erbium Thin Film Oxidation in the Electron Microscope. <i>Physica Status Solidi (B): Basic Research</i> , 1967 , 24, 135-148	1.3	43
4	The Application of Color Photography to Transmission Electron Microscope Studies of Thin Metal Foils. <i>Physica Status Solidi (B): Basic Research</i> , 1965 , 10, 441-445	1.3	
3	A continuously pumped ultra-high vacuum-sorption system for the preparation of highly ordered single-crystal metal foils. <i>British Journal of Applied Physics</i> , 1964 , 15, 1511-1515		18

2 Plant Growth Response in a Simulated Electric Field-environment. *Nature*, **1963**, 200, 490-491 50.4 56

1 Apparatus for the study of fatigue of thin metal films in the Hitachi H.U. 11 electron microscope.
Journal of Scientific Instruments, **1963**, 40, 594-596 1