Marc A Meyers

List of Publications by Year in Descending Order

402 papers	28,934 citations	81 h-index	160 g-index
452 ext. papers	32,708 ext. citations	8.1 avg, IF	7.45 L-index

#	Paper	IF	Citations
402	Cantor-derived medium-entropy alloys: bridging the gap between traditional metallic and high-entropy alloys. *Journal of Materials Research and Technology*, **2022**, 17, 1868-1895	5.5	5
401	The role of pre-existing heterogeneities in materials under shock and spall. *Applied Physics Reviews*, **2022**, 9, 011305	17.3	3
400	Design of high-pressure iron Rayleigh Taylor strength experiments for the National Ignition Facility. *Journal of Applied Physics*, **2022**, 131, 145902	2.5	
399	Digital healthcare technologies: Modern tools to transform prosthetic care. *Expert Review of Medical Devices*, **2021**, 1-16	3.5	0
398	Exceptionally high spallation strength for a high-entropy alloy demonstrated by experiments and simulations. *Journal of Alloys and Compounds*, **2021**, 162567	5.7	2
397	Bite force mechanics and allometry of piranha (Serrasalmidae). *Journal of the Mechanical Behavior of Biomedical Materials*, **2021**, 115, 104296	4.1	1
396	Micro-mechanical response of ultrafine grain and nanocrystalline tantalum. *Journal of Materials Research and Technology*, **2021**, 12, 1804-1815	5.5	3
395	Reprint of:The materials science of skin: Analysis, characterization, and modeling. *Progress in Materials Science*, **2021**, 120, 100816	42.2	0
394	Hydration-induced reversible deformation of biological materials. *Nature Reviews Materials*, **2021**, 6, 264-283	73.3	17
393	Shear localization in metallic materials at high strain rates. *Progress in Materials Science*, **2021**, 119, 100755	42.2	20
392	Multi-material additive manufacturing of functionally graded carbide ceramics via active, in-line mixing. *Additive Manufacturing*, **2021**, 37, 101647	6.1	5
391	Hydration-induced reversible deformation of the pine cone. *Acta Biomaterialia*, **2021**, 128, 370-383	10.8	7
390	Tooth structure, mechanical properties, and diet specialization of Piranha and Pacu (Serrasalmidae): A comparative study. *Acta Biomaterialia*, **2021**, 134, 531-545	10.8	2
389	Engineering with keratin: A functional material and a source of bioinspiration. *IScience*, **2021**, 24, 102798	6.1	10
388	The role of pre-existing defects in shock-generated ejecta in copper. *Journal of Applied Physics*, **2021**, 130, 075101	2.5	0
387	Towards the ultimate strength of iron: spalling through laser shock. *Acta Materialia*, **2021**, 215, 117072	8.4	11
386	Additive manufacturing of structural ceramics: a historical perspective. *Journal of Materials Research and Technology*, **2021**, 15, 670-695	5.5	3

385	Amorphization in extreme deformation of the CrMnFeCoNi high-entropy alloy. *Science Advances*, **2021**, 7,	14.3	45
384	Active defense mechanisms of thorny catfish. *Materials Today*, **2020**, 38, 35-48	21.8	3
383	Cholla cactus frames as lightweight and torsionally tough biological materials. *Acta Biomaterialia*, **2020**, 112, 213-224	10.8	5
382	The toughness of porcine skin: Quantitative measurements and microstructural characterization. *Journal of the Mechanical Behavior of Biomedical Materials*, **2020**, 109, 103848	4.1	4
381	Constitutive description of skin dermis: Through analytical continuum and coarse-grained approaches for multi-scale understanding. *Acta Biomaterialia*, **2020**, 106, 208-224	10.8	6
380	The materials science of skin: Analysis, characterization, and modeling. *Progress in Materials Science*, **2020**, 110, 100634	42.2	16
379	On the Strength of Hair across Species. *Matter*, **2020**, 2, 136-149	12.7	8
378	Molecular dynamics simulations of ejecta formation in helium-implanted copper. *Scripta Materialia*, **2020**, 178, 114-118	5.6	7
377	Offering Toughness and Protection, Arapaima Scales Provide Effective Defense against Predation. *Matter*, **2020**, 3, 1979-1980	12.7	
376	On the gular sac tissue of the brown pelican: Structural characterization and mechanical properties. *Acta Biomaterialia*, **2020**, 118, 161-181	10.8	0
375	Structure and Mechanical Adaptability of a Modern Elasmoid Fish Scale from the Common Carp. *Matter*, **2020**, 3, 842-863	12.7	15
374	A review of impact resistant biological and bioinspired materials and structures. *Journal of Materials Research and Technology*, **2020**, 9, 15705-15738	5.5	23
373	The effects of ultra-fine-grained structure and cryogenic temperature on adiabatic shear localization in titanium. *Acta Materialia*, **2019**, 181, 408-422	8.4	18
372	Tensile behavior and structural characterization of pig dermis. *Acta Biomaterialia*, **2019**, 86, 77-95	10.8	33
371	On the Nature of the Transparent Teeth of the Deep-Sea Dragonfish, Aristostomias scintillans. *Matter*, **2019**, 1, 235-249	12.7	12
370	External Field Assisted Freeze Casting. *Ceramics*, **2019**, 2, 208-234	1.7	17
369	Bioinspired avian feather designs. *Materials Science and Engineering C*, **2019**, 105, 110066	8.3	6
368	Hyperelastic phase-field fracture mechanics modeling of the toughening induced by Bouligand structures in natural materials. *Journal of the Mechanics and Physics of Solids*, **2019**, 131, 204-220	5	32

367	Arapaima Fish Scale: One of the Toughest Flexible Biological Materials. *Matter*, **2019**, 1, 1557-1566	12.7	17
366	Bioinspired composite segmented armour: Numerical simulations. *Journal of Materials Research and Technology*, **2019**, 8, 1274-1287	5.5	15
365	Mechanical properties of high-entropy alloys with emphasis on face-centered cubic alloys. *Progress in Materials Science*, **2019**, 102, 296-345	42.2	306
364	Lessons from the Ocean: Whale Baleen Fracture Resistance. *Advanced Materials*, **2019**, 31, e1804574	24	22
363	Scaling of bird wings and feathers for efficient flight. *Science Advances*, **2019**, 5, eaat4269	14.3	12
362	Structural architectures with toughening mechanisms in Nature: A review of the materials science of Type-I collagenous materials. *Progress in Materials Science*, **2019**, 103, 425-483	42.2	46
361	Adiabatic shear localization in the CrMnFeCoNi high-entropy alloy. *Acta Materialia*, **2018**, 151, 424-431	8.4	88
360	Fragmentation and mechanical performance of tailored nickel-aluminum laminate compacts. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2018**, 727, 123-132	5.3	1
359	Shock-induced amorphization in silicon carbide. *Acta Materialia*, **2018**, 158, 206-213	8.4	41
358	Spall strength dependence on grain size and strain rate in tantalum. *Acta Materialia*, **2018**, 158, 313-329	8.4	57
357	A comparative analysis of the avian skull: Woodpeckers and chickens. *Journal of the Mechanical Behavior of Biomedical Materials*, **2018**, 84, 273-280	4.1	8
356	Additive Manufacturing as a Method to Design and Optimize Bioinspired Structures. *Advanced Materials*, **2018**, 30, e1800940	24	98
355	Novel Defense Mechanisms in the Armor of the Scales of the Living Fossil Coelacanth Fish. *Advanced Functional Materials*, **2018**, 28, 1804237	15.6	37
354	Shock-induced Amorphization in Covalently Bonded Solids. *EPJ Web of Conferences*, **2018**, 183, 03027	0.3	4
353	Shear localization of fcc high-entropy alloys. *EPJ Web of Conferences*, **2018**, 183, 03028	0.3	3
352	Hydration-Induced Shape and Strength Recovery of the Feather. *Advanced Functional Materials*, **2018**, 28, 1801250	15.6	7
351	Revealing the Mechanics of Helicoidal Composites through Additive Manufacturing and Beetle Developmental Stage Analysis. *Advanced Functional Materials*, **2018**, 28, 1803073	15.6	32
350	On the ultimate tensile strength of tantalum. *Acta Materialia*, **2017**, 126, 313-328	8.4	57

349	Structural characterization and viscoelastic constitutive modeling of skin. *Acta Biomaterialia*, **2017**, 53, 460-469	10.8	34
348	High-velocity deformation of AlCoCrFeNi high-entropy alloy: Remarkable resistance to shear failure. *Scientific Reports*, **2017**, 7, 42742	4.9	85
347	Deformation and failure in extreme regimes by high-energy pulsed lasers: A review. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 688, 429-458	5.3	41
346	Nature's technical ceramic: the avian eggshell. *Journal of the Royal Society Interface*, **2017**, 14,	4.1	18
345	Extreme lightweight structures: avian feathers and bones. *Materials Today*, **2017**, 20, 377-391	21.8	61
344	Simulation of tantalum nanocrystals under shock-wave loading: Dislocations and twinning **2017**,		12
343	Functional gradients and heterogeneities in biological materials: Design principles, functions, and bioinspired applications. *Progress in Materials Science*, **2017**, 88, 467-498	42.2	331
342	Non-equilibrium molecular dynamics simulations of spall in single crystal tantalum **2017**,		10
341	Lamellae spatial distribution modulates fracture behavior and toughness of african pangolin scales. *Journal of the Mechanical Behavior of Biomedical Materials*, **2017**, 76, 30-37	4.1	8
340	Dynamic deformation and failure of ultrafine-grained titanium. *Acta Materialia*, **2017**, 125, 210-218	8.4	59
339	Structure and mechanical behavior of human hair. *Materials Science and Engineering C*, **2017**, 73, 152-163	8.3	72
338	Light Like a Feather: A Fibrous Natural Composite with a Shape Changing from Round to Square. *Advanced Science*, **2017**, 4, 1600360	13.6	21
337	Generating gradient germanium nanostructures by shock-induced amorphization and crystallization. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 9791-9796	11.5	34
336	Viscoelastic properties of □keratin fibers in hair. *Acta Biomaterialia*, **2017**, 64, 15-28	10.8	16
335	Reinforcements in avian wing bones: Experiments, analysis, and modeling. *Journal of the Mechanical Behavior of Biomedical Materials*, **2017**, 76, 85-96	4.1	14
334	Reversible Attachment with Tailored Permeability: The Feather Vane and Bioinspired Designs. *Advanced Functional Materials*, **2017**, 27, 1702954	15.6	13
333	Seagull feather shaft: Correlation between structure and mechanical response. *Acta Biomaterialia*, **2017**, 48, 270-288	10.8	22
332	A comparative study of piscine defense: The scales of Arapaima gigas, Latimeria chalumnae and Atractosteus spatula. *Journal of the Mechanical Behavior of Biomedical Materials*, **2017**, 73, 1-16	4.1	34

331	The organic interlamellar layer in abalone nacre: Formation and mechanical response. *Materials Science and Engineering C*, **2016**, 58, 7-13	8.3	19
330	Keratin: Structure, mechanical properties, occurrence in biological organisms, and efforts at bioinspiration. *Progress in Materials Science*, **2016**, 76, 229-318	42.2	376
329	Directional amorphization of boron carbide subjected to laser shock compression. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 12088-12093	11.5	58
328	Supersonic Dislocation Bursts in Silicon. *Scientific Reports*, **2016**, 6, 26977	4.9	15
327	Fragmentation and constitutive response of tailored mesostructured aluminum compacts. *Journal of Applied Physics*, **2016**, 119, 145903	2.5	11
326	Shock compression of [001] single crystal silicon. *European Physical Journal: Special Topics*, **2016**, 225, 335-341	2.3	3
325	Symmetric tilt boundaries in body-centered cubic tantalum. *Scripta Materialia*, **2016**, 116, 108-111	5.6	29
324	Reproducibility of ZrO2-based freeze casting for biomaterials. *Materials Science and Engineering C*, **2016**, 61, 105-12	8.3	40
323	Amorphization and nanocrystallization of silicon under shock compression. *Acta Materialia*, **2016**, 103, 519-533	8.4	77
322	Structure and mechanical properties of selected protective systems in marine organisms. *Materials Science and Engineering C*, **2016**, 59, 1143-1167	8.3	56
321	Microstructural and geometric influences in the protective scales of Atractosteus spatula. *Journal of the Royal Society Interface*, **2016**, 13,	4.1	7
320	Bioinspired intrinsic control of freeze cast composites: Harnessing hydrophobic hydration and clathrate hydrates. *Acta Materialia*, **2016**, 114, 67-79	8.4	21
319	Pangolin armor: Overlapping, structure, and mechanical properties of the keratinous scales. *Acta Biomaterialia*, **2016**, 41, 60-74	10.8	75
318	A lightweight, biological structure with tailored stiffness: The feather vane. *Acta Biomaterialia*, **2016**, 41, 27-39	10.8	37
317	Room Temperature Dynamic Strain Aging in Ultrafine-Grained Titanium. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 4468-4477	2.3	8
316	Grain-size dependent mechanical behavior of nanocrystalline metals. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 646, 101-134	5.3	129
315	The materials science of collagen. *Journal of the Mechanical Behavior of Biomedical Materials*, **2015**, 52, 22-50	4.1	141
314	Braze welding of cobalt with a silver□opper filler. *Journal of Materials Research and Technology*, **2015**, 4, 44-59	5.5	4

313	The armored carapace of the boxfish. *Acta Biomaterialia*, **2015**, 23, 1-10	10.8	46
312	BIOMECHANICS. Why the seahorse tail is square. *Science*, **2015**, 349, aaa6683	33.3	59
311	Mechanical properties and corrosion resistance of hot extruded Mg□.5Zn□Ca alloy. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2015**, 195, 50-58	3.1	30
310	On the tear resistance of skin. *Nature Communications*, **2015**, 6, 6649	17.4	206
309	Leatherback sea turtle shell: A tough and flexible biological design. *Acta Biomaterialia*, **2015**, 28, 2-12	10.8	53
308	Pressure and shear-induced amorphization of silicon. *Extreme Mechanics Letters*, **2015**, 5, 74-80	3.9	33
307	Torsional properties of helix-reinforced composites fabricated by magnetic freeze casting. *Composite Structures*, **2015**, 119, 174-184	5.3	39
306	A Sustainable Substitute for Ivory: the Jarina Seed from the Amazon. *Scientific Reports*, **2015**, 5, 14387	4.9	6
305	Phase Transformation in Tantalum under Extreme Laser Deformation. *Scientific Reports*, **2015**, 5, 15064	4.9	26
304	Probing the character of ultra-fast dislocations. *Scientific Reports*, **2015**, 5, 16892	4.9	26
303	Failure mechanisms in cobalt welded with a silver□opper filler. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 645, 369-382	5.3	4
302	Structural Design Elements in Biological Materials: Application to Bioinspiration. *Advanced Materials*, **2015**, 27, 5455-76	24	316
301	Bioinspired composites from freeze casting with clathrate hydrates. *Materials & Design*, **2015**, 71, 62-67		26
300	Structure and mechanical properties of naturally occurring lightweight foam-filled cylinder--the peacock's tail coverts shaft and its components. *Acta Biomaterialia*, **2015**, 17, 137-51	10.8	40
299	Alligator osteoderms: mechanical behavior and hierarchical structure. *Materials Science and Engineering C*, **2014**, 35, 441-8	8.3	29
298	Organic interlamellar layers, mesolayers and mineral nanobridges: contribution to strength in abalone (Haliotis rufescence) nacre. *Acta Biomaterialia*, **2014**, 10, 2056-64	10.8	48
297	Reinforcing Structures in Avian Wing Bones. *Ceramic Transactions*, **2014**, 47-56	0.1	2
296	Protective role of Arapaima gigas fish scales: structure and mechanical behavior. *Acta Biomaterialia*, **2014**, 10, 3599-614	10.8	115

295	Bioinspired Scaffolds with Varying Pore Architectures and Mechanical Properties. *Advanced Functional Materials*, **2014**, 24, 1978-1987	15.6	93
294	Atomistic simulation of tantalum nanoindentation: Effects of indenter diameter, penetration velocity, and interatomic potentials on defect mechanisms and evolution. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 613, 390-403	5.3	76
293	Plastic deformation in nanoindentation of tantalum: A new mechanism for prismatic loop formation. *Acta Materialia*, **2014**, 78, 378-393	8.4	112
292	A Comparison on the Structural and Mechanical Properties of Untreated and Deproteinized Nacre. *Ceramic Transactions*, **2014**, 37-45	0.1	1
291	Porous Scaffolds: Bioinspired Scaffolds with Varying Pore Architectures and Mechanical Properties (Adv. Funct. Mater. 14/2014). *Advanced Functional Materials*, **2014**, 24, 2108-2108	15.6	
290	Structural Characterization and Compressive Behavior of the Boxfish Horn. *Ceramic Transactions*, **2014**, 105-112	0.1	1
289	Plastic deformation of a porous bcc metal containing nanometer sized voids. *Computational Materials Science*, **2014**, 88, 92-102	3.2	37
288	Biological Materials Science: Biological Materials, Bioinspired Materials, and Biomaterials **2014**,		56
287	Biomimetic Materials by Freeze Casting. *Jom*, **2013**, 65, 720-727	2.1	52
286	Structure and fracture resistance of alligator gar (Atractosteus spatula) armored fish scales. *Acta Biomaterialia*, **2013**, 9, 5876-89	10.8	86
285	Ultrafine grained titanium for biomedical applications: An overview of performance. *Journal of Materials Research and Technology*, **2013**, 2, 340-350	5.5	94
284	Atomistic simulation of the mechanical response of a nanoporous body-centered cubic metal. *Scripta Materialia*, **2013**, 68, 817-820	5.6	32
283	Isentropic/shock compression and recovery methodology for materials using high-amplitude laser pulses. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 578, 354-361	5.3	7
282	Laser compression of nanocrystalline tantalum. *Acta Materialia*, **2013**, 61, 7767-7780	8.4	41
281	Inverse HallPetch relationship in nanocrystalline tantalum. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 580, 414-426	5.3	74
280	Mechanical adaptability of the Bouligand-type structure in natural dermal armour. *Nature Communications*, **2013**, 4, 2634	17.4	202
279	Comparative study of carp otolith hardness: lapillus and asteriscus. *Materials Science and Engineering C*, **2013**, 33, 1876-81	8.3	14
278	Structural biological materials: critical mechanics-materials connections. *Science*, **2013**, 339, 773-9	33.3	669

277	Highly deformable bones: unusual deformation mechanisms of seahorse armor. *Acta Biomaterialia*, **2013**, 9, 6763-70	10.8	47
276	Natural flexible dermal armor. *Advanced Materials*, **2013**, 25, 31-48	24	241
275	Porous Hydroxyapatite-Polyhydroxybutyrate Composites Fabricated by a Novel Method Via Centrifugation. *Conference Proceedings of the Society for Experimental Mechanics*, **2013**, 63-71	0.3	7
274	Magnetic enhancement of thermal conductivity in copper□arbon nanotube composites produced by electroless plating, freeze drying, and spark plasma sintering. *Materials Letters*, **2012**, 79, 256-258	3.3	41
273	Structure and micro-computed tomography-based finite element modeling of Toucan beak. *Journal of the Mechanical Behavior of Biomedical Materials*, **2012**, 9, 1-8	4.1	19
272	Biological materials: Functional adaptations and bioinspired designs. *Progress in Materials Science*, **2012**, 57, 1492-1704	42.2	457
271	Magnetic freeze casting inspired by nature. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 556, 741-750	5.3	100
270	Ductile tensile failure in metals through initiation and growth of nanosized voids. *Acta Materialia*, **2012**, 60, 4856-4865	8.4	64
269	Laser compression of monocrystalline tantalum. *Acta Materialia*, **2012**, 60, 6601-6620	8.4	58
268	Nanostructural and Microstructural Aspects of Shear Localization at High-Strain Rates for Materials **2012**, 111-171		1
267	The Structure, Functions, and Mechanical Properties of Keratin. *Jom*, **2012**, 64, 449-468	2.1	190
266	Battle in the Amazon: Arapaima versus Piranha. *Advanced Engineering Materials*, **2012**, 14, B279-B288	3.5	67
265	Flexible Dermal Armor in Nature. *Jom*, **2012**, 64, 475-485	2.1	27
264	Quasi-static and dynamic response of explosively consolidated metal□luminum powder mixtures. *Acta Materialia*, **2012**, 60, 1418-1432	8.4	43
263	Response of Ni/Al laminates to laser-driven compression. *Acta Materialia*, **2012**, 60, 3929-3942	8.4	26
262	Microchannelled hydroxyapatite components by sequential freeze drying and free pressureless spark plasma sintering. *Advances in Applied Ceramics*, **2012**, 111, 269-274	2.3	9
261	Growth and collapse of nanovoids in tantalum monocrystals loaded at high strain rate **2012**,		2
260	Laser compression of nanocrystalline tantalum **2012**,		2

259	Predation versus protection: Fish teeth and scales evaluated by nanoindentation. *Journal of Materials Research*, **2012**, 27, 100-112	2.5	63
258	Potential Bone Replacement Materials Prepared by Two Methods. *Materials Research Society Symposia Proceedings*, **2012**, 1418, 177		39
257	Mechanical properties and the laminate structure of Arapaima gigas scales. *Journal of the Mechanical Behavior of Biomedical Materials*, **2011**, 4, 1145-56	4.1	114
256	Structure and mechanical properties of Saxidomus purpuratus biological shells. *Journal of the Mechanical Behavior of Biomedical Materials*, **2011**, 4, 1514-30	4.1	48
255	Reaction in Ni/Al laminates by laser-shock compression and spalling. *Acta Materialia*, **2011**, 59, 5276-5287	8.4	27
254	Effects of geometry and intermetallic bonding on the mechanical response, spalling and fragmentation of Ni/Al laminates. *Acta Materialia*, **2011**, 59, 5869-5880	8.4	19
253	Armadillo armor: mechanical testing and micro-structural evaluation. *Journal of the Mechanical Behavior of Biomedical Materials*, **2011**, 4, 713-22	4.1	98
252	Correlation of the mechanical and structural properties of cortical rachis keratin of rectrices of the Toco Toucan (Ramphastos toco). *Journal of the Mechanical Behavior of Biomedical Materials*, **2011**, 4, 723-32	4.1	33
251	Growth and collapse of nanovoids in tantalum monocrystals. *Acta Materialia*, **2011**, 59, 1354-1372	8.4	71
250	Growth of nacre in abalone: Seasonal and feeding effects. *Materials Science and Engineering C*, **2011**, 31, 238-245	8.3	20
249	Structural characterization and mechanical behavior of a bivalve shell (Saxidomus purpuratus). *Materials Science and Engineering C*, **2011**, 31, 724-729	8.3	55
248	Dynamic nanoindentation of articular porcine cartilage. *Materials Science and Engineering C*, **2011**, 31, 789-795	8.3	48
247	Reprint of: Growth of nacre in abalone: Seasonal and feeding effects. *Materials Science and Engineering C*, **2011**, 31, 716-723	8.3	6
246	Biological materials: a materials science approach. *Journal of the Mechanical Behavior of Biomedical Materials*, **2011**, 4, 626-57	4.1	128
245	The strength of single crystal copper under uniaxial shock compression at 100 GPa. *Journal of Physics Condensed Matter*, **2010**, 22, 065404	1.8	60
244	Response to "Shear Impossibility" Comments on "Void Growth by Dislocation Emission" and "Void Growth in Metals" *Scripta Materialia*, **2010**, 63, 148-150	5.6	16
243	News of MRS Members/Materials Researches. *MRS Bulletin*, **2010**, 35, 343-343	3.2	
242	Sequential bone healing of immediately loaded mini-implants: histomorphometric and fluorescence analysis. *American Journal of Orthodontics and Dentofacial Orthopedics*, **2010**, 137, 80-90	2.1	39

241	Laser shock-induced spalling and fragmentation in vanadium. *Acta Materialia*, **2010**, 58, 4604-4628	8.4	45
240	Shock compression of monocrystalline copper: Experiments, characterization, and analysis. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2010**, 527, 424-434	5.3	16
239	The dynamic behavior of materials: An introduction. *Jom*, **2010**, 62, 14-15	2.1	7
238	Laser shocking of materials: Toward the national ignition facility. *Jom*, **2010**, 62, 24-30	2.1	12
237	Spark plasma sintering of tantalum carbide. *Scripta Materialia*, **2010**, 63, 577-580	5.6	98
236	Mechanical behavior of prosthesis in Toucan beak (Ramphastos toco). *Materials Science and Engineering C*, **2010**, 30, 460-464	8.3	15
235	Energy absorbent natural materials and bioinspired design strategies: A review. *Materials Science and Engineering C*, **2010**, 30, 331-342	8.3	134
234	Void initiation in fcc metals: Effect of loading orientation and nanocrystalline effects. *Acta Materialia*, **2010**, 58, 4458-4477	8.4	131
233	Toucan and hornbill beaks: a comparative study. *Acta Biomaterialia*, **2010**, 6, 331-43	10.8	51
232	Chapter 89 Dislocations in Shock Compression and Release. *Dislocations in Solids*, **2009**, 15, 91-197		34
231	Analysis and characterization by electron backscatter diffraction of microstructural evolution in the adiabatic shear bands in Fe-Cr-Ni alloys. *Journal of Materials Research*, **2009**, 24, 2617-2627	2.5	11
230	Underwater adhesion of abalone: The role of van der Waals and capillary forces. *Acta Materialia*, **2009**, 57, 4178-4185	8.4	36
229	The role of dislocations in the growth of nanosized voids in ductile failure of metals. *Jom*, **2009**, 61, 35-41	2.1	47
228	Uniaxial Freezing, Freeze-Drying, and Anodization for Aligned Pore Structure in Dye-Sensitized Solar Cells. *Journal of the American Ceramic Society*, **2009**, 92, 1487-1491	3.8	9
227	The role of organic intertile layer in abalone nacre. *Materials Science and Engineering C*, **2009**, 29, 2398-2410	4.1	54
226	Interfacial shear strength in abalone nacre. *Journal of the Mechanical Behavior of Biomedical Materials*, **2009**, 2, 607-12	4.1	89
225	Systemic levels of metallic ions released from orthodontic mini-implants. *American Journal of Orthodontics and Dentofacial Orthopedics*, **2009**, 135, 522-9	2.1	50
224	LASER COMPRESSION OF NANOCRYSTALLINE METALS **2009**,		2

223	EXPLOSIVE COMPATIONS OF INTERMETALLIC-FORMING POWDER MIXTURES FOR FABRICATING STRUCTURAL ENERGETIC MATERIALS **2009**,		7
222	Dynamic recrystallization in the shear bands of FeCrNi monocrystal: Electron backscatter diffraction characterization. *Scripta Materialia*, **2008**, 58, 691-694	5.6	27
221	MECHANICAL AND MICROSTRUCTURAL PROPERTIES OF PTFE/Al/W SYSTEM **2008**,		4
220	Mechanical strength of abalone nacre: role of the soft organic layer. *Journal of the Mechanical Behavior of Biomedical Materials*, **2008**, 1, 76-85	4.1	278
219	Structure and mechanical properties of selected biological materials. *Journal of the Mechanical Behavior of Biomedical Materials*, **2008**, 1, 208-26	4.1	264
218	Effect of strain rate on the compressive mechanical properties of aluminum alloy matrix composite filled with discontinuous carbon fibers. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 485, 681-689	5.3	17
217	Combustion synthesis/quasi-isostatic pressing of TiC0.7NiTi cermets: microstructure and transformation characteristics. *Journal of Materials Science*, **2008**, 43, 5905-5923	4.3	7
216	Combustion synthesis/quasi-isostatic pressing of TiCNiTi cermets: processing and mechanical response. *Journal of Materials Science*, **2008**, 43, 6513-6526	4.3	12
215	Advances in biological materials and biomaterials science. *Jom*, **2008**, 60, 18-18	2.1	
214	The cutting edge: Sharp biological materials. *Jom*, **2008**, 60, 19-24	2.1	33
213	Biomedical applications of titanium and its alloys. *Jom*, **2008**, 60, 46-49	2.1	507
212	Biological materials science and engineering: Biological materials, biomaterials, and biomimetics. *Jom*, **2008**, 60, 21-22	2.1	8
211	Structural biological materials: Overview of current research. *Jom*, **2008**, 60, 23-32	2.1	21
210	Transmission Electron Microscopy Study of Strain-Induced Low- and High-Angle Boundary Development in Equal-Channel Angular-Pressed Commercially Pure Aluminum. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2008**, 39, 181-189	2.3	57
209	Deformation Substructures and Their Transitions in Laser Shock-Compressed Copper-Aluminum Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2008**, 39, 304-321	2.3	32
208	Shear Localization in Dynamic Deformation: Microstructural Evolution. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2008**, 39, 811-843	2.3	189
207	Biological materials: Structure and mechanical properties. *Progress in Materials Science*, **2008**, 53, 1-206	42.2	1675
206	High-strain-rate response of ultra-fine-grained copper. *Acta Materialia*, **2008**, 56, 2770-2783	8.4	134

205	Void growth in metals: Atomistic calculations. *Acta Materialia*, **2008**, 56, 3874-3886	8.4	196
204	Molecular dynamics simulations of shock compression of nickel: From monocrystals to nanocrystals. *Acta Materialia*, **2008**, 56, 5584-5604	8.4	89
203	The growth of nacre in the abalone shell. *Acta Biomaterialia*, **2008**, 4, 131-8	10.8	95
202	Structure and mechanical properties of crab exoskeletons. *Acta Biomaterialia*, **2008**, 4, 587-96	10.8	308
201	High-strain, high-strain-rate flow and failure in PTFE/Al/W granular composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 472, 308-315	5.3	71
200	The development of residual stresses in Ti6Al4V-Al3Ti metal-intermetallic laminate (MIL) composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 473, 49-57	5.3	41
199	Sequential bone healing of immediately loaded mini-implants. *American Journal of Orthodontics and Dentofacial Orthopedics*, **2008**, 134, 44-52	2.1	38
198	Liberação in vivo de íons metálicos por mini-implantes ortodônticos de Ti-6Al-4V. *Revista Materia*, **2007**, 12, 290-297	0.8	4
197	Microstructural evolution in copper subjected to severe plastic deformation: Experiments and analysis. *Acta Materialia*, **2007**, 55, 13-28	8.4	363
196	Densification of porous bodies in a granular pressure-transmitting medium. *Acta Materialia*, **2007**, 55, 1351-1366	8.4	14
195	Titanium alloy mini-implants for orthodontic anchorage: immediate loading and metal ion release. *Acta Biomaterialia*, **2007**, 3, 331-9	10.8	111
194	Damage evolution in Ti6Al4V/Al3Ti metal-intermetallic laminate composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 443, 1-15	5.3	56
193	Dynamic response of single crystalline copper subjected to quasi-isentropic, gas-gun driven loading. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2007**, 463, 249-262	5.3	32
192	Instrumented anvil-on-rod tests for constitutive model validation and determination of strain-rate sensitivity of ultrafine-grained copper. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 464, 202-209	5.3	11
191	Fabrication of Net-Shape Functionally Graded Composites by Electrophoretic Deposition and Sintering: Modeling and Experimentation. *Journal of the American Ceramic Society*, **2007**, 90, 3047-3056	3.8	30
190	Shock Compression of Monocrystalline Copper: Atomistic Simulations. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 2681-2688	2.3	45
189	Fourth TMS Symposium on the Dynamic Behavior of Materials: Part I (Part II will be Published in a Subsequent Issue). *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 2603-2604	2.3	
188	Fourth TMS Symposium on the Dynamic Behavior of Materials: Part II (Part I was published in November 2007.). *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 2859-2860	2.3	3

187	Biological materials science in the TMS world. *Jom*, **2006**, 58, 20-22	2.1	
186	Structural biological composites: An overview. *Jom*, **2006**, 58, 35-41	2.1	92
185	The deformation physics of nanocrystalline metals: Experiments, analysis, and computations. *Jom*, **2006**, 58, 41-48	2.1	65
184	Picosecond X-Ray Diffraction from Laser-Shocked Copper and Iron. *AIP Conference Proceedings*, **2006**,	0	4
183	Material dynamics under extreme conditions of pressure and strain rate. *Materials Science and Technology*, **2006**, 22, 474-488	1.5	101
182	Deforming nanocrystalline nickel at ultrahigh strain rates. *Applied Physics Letters*, **2006**, 88, 061917	3.4	59
181	Ultrafine-grain-sized zirconium by dynamic deformation. *Acta Materialia*, **2006**, 54, 4111-4127	8.4	89
180	In situ diffraction measurements of lattice response due to shock loading, including direct observation of the □phase transition in iron. *International Journal of Impact Engineering*, **2006**, 33, 343-352	4	8
179	Mechanical properties and structure of Strombus gigas, Tridacna gigas, and Haliotis rufescens sea shells: A comparative study. *Materials Science and Engineering C*, **2006**, 26, 1380-1389	8.3	108
178	The toucan beak: Structure and mechanical response. *Materials Science and Engineering C*, **2006**, 26, 1412-1420	8.3	51
177	Mechanical properties of nanocrystalline materials. *Progress in Materials Science*, **2006**, 51, 427-556	42.2	3294
176	Atomistic modeling of shock-induced void collapse in copper. *Applied Physics Letters*, **2005**, 86, 161902	3.4	87
175	Direct observation of the alpha-epsilon transition in shock-compressed iron via nanosecond x-ray diffraction. *Physical Review Letters*, **2005**, 95, 075502	7.4	233
174	Microstructural evolution in copper processed by severe plastic deformation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 410-411, 290-298	5.3	81
173	Laser shock compression of copper and copper□luminum alloys. *International Journal of Impact Engineering*, **2005**, 32, 473-507	4	50
172	Growth and structure in abalone shell. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 390, 27-41	5.3	193
171	Effect of shock compression method on the defect substructure in monocrystalline copper. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2005**, 409, 270-281	5.3	38
170	Structure and mechanical behavior of a toucan beak. *Acta Materialia*, **2005**, 53, 5281-5296	8.4	89

169	Laser-Induced Shock Compression of Copper and Copper Aluminum Alloys. *AIP Conference Proceedings*, **2004**,	0	4
168	Modeling the elastic properties and damage evolution in Ti/Al3Ti metal/intermetallic laminate (MIL) composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 374, 10-26	5.3	61
167	Self organization of shear bands in stainless steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 384, 35-46	5.3	67
166	Symposium on dynamic deformation: Constitutive modeling, grain size, and other effects-in honor of prof. Ronald W. Armstrong foreword. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 2545-2546	2.3	
165	Shear localization-martensitic transformation interactions in Fe-Cr-Ni monocrystal. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 2575-2586	2.3	23
164	Materials science under extreme conditions of pressure and strain rate. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 2587-2607	2.3	74
163	Laser-induced shock compression of copper: Orientation and pressure decay effects. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 2633-2646	2.3	35
162	Effect of low-temperature shock compression on the microstructure and strength of copper. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 2729-2739	2.3	17
161	Explosive welding of aluminum to aluminum: analysis, computations and experiments. *International Journal of Impact Engineering*, **2004**, 30, 1333-1351	4	114
160	Void growth by dislocation emission. *Acta Materialia*, **2004**, 52, 1397-1408	8.4	249
159	Computational description of nanocrystalline deformation based on crystal plasticity. *Acta Materialia*, **2004**, 52, 4413-4425	8.4	81
158	Laser Induced Shock Defects in Copper Aluminum Alloys: Stacking Fault Energy Effects on the Slip-Twinning Transition. *Materials Science Forum*, **2004**, 465-466, 27-34	0.4	3
157	Laser shock compression of copper monocrystals: Mechanisms for dislocation and void generation. *European Physical Journal Special Topics*, **2003**, 110, 851-856		5
156	Evaluation of the collapsing thick-walled cylinder technique for shear-band spacing. *International Journal of Impact Engineering*, **2003**, 28, 257-280	4	38
155	Strain-rate effects in rheological models of inelastic response. *International Journal of Plasticity*, **2003**, 19, 1097-1118	7.6	46
154	Constitutive response of welded HSLA 100 steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2003**, 354, 166-179	5.3	26
153	Laser-induced shock compression of monocrystalline copper: characterization and analysis. *Acta Materialia*, **2003**, 51, 1211-1228	8.4	207
152	Microstructural evolution in adiabatic shear localization in stainless steel. *Acta Materialia*, **2003**, 51, 1307-1325	8.4	355

151	High-pressure, high-strain-rate lattice response of shocked materials. *Physics of Plasmas*, **2003**, 10, 1569-1576	1.5	40
150	Multiple film plane diagnostic for shocked lattice measurements (invited). *Review of Scientific Instruments*, **2003**, 74, 1929-1934	1.7	32
149	THE ONSET OF TWINNING IN PLASTIC DEFORMATION AND MARTENSITIC TRANSFORMATIONS **2003**, 221-231		1
148	Constitutive description of dynamic deformation: physically-based mechanisms. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2002**, 322, 194-216	5.3	146
147	Combustion synthesis and quasi-isostatic densification of powder cermets. *Journal of Materials Processing Technology*, **2002**, 121, 157-166	5.3	34
146	Self-organization of shear bands in titanium and Ti□Al□V alloy. *Acta Materialia*, **2002**, 50, 575-596	8.4	221
145	Plastic Deformation in Laser-Induced Shock Compression of Monocrystalline Copper. *AIP Conference Proceedings*, **2002**,	0	1
144	Computational Modeling of the Shock Compression of Powders. *AIP Conference Proceedings*, **2002**,	0	1
143	The onset of twinning in metals: a constitutive description. *Acta Materialia*, **2001**, 49, 4025-4039	8.4	1187
142	Shear localization and recrystallization in dynamic deformation of 8090 Al□i alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 299, 287-295	5.3	159
141	On the effect of grain size on yield stress: extension into nanocrystalline domain. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 319-321, 854-861	5.3	67
140	Combustion synthesis/densification of an Al2O3□iB2 composite. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 311, 83-99	5.3	56
139	Shear localization in dynamic deformation of materials: microstructural evolution and self-organization. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 317, 204-225	5.3	254
138	Quasi-static and dynamic mechanical response of Strombus gigas (conch) shells. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 297, 203-211	5.3	135
137	Analytical and computational description of effect of grain size on yield stress of metals. *Acta Materialia*, **2001**, 49, 2567-2582	8.4	234
136	Characterization by indentation of combustion synthesized cermets. *Scripta Materialia*, **2001**, 44, 1139-1146	3.6	8
135	Anomalous elastic response of silicon to uniaxial shock compression on nanosecond time scales. *Physical Review Letters*, **2001**, 86, 2349-52	7.4	161
134	Self-organization of shear bands in stainless steel **2001**, 549-559		

133	Dynamic behavior of silicon carbide **2001**, 209-217		
132	Microstructural and micromechanical aspects of ceramic/long-rod projectile interactions **2001**, 437-446		4
131	Developing Solid-State Experiments on the Nova Laser. *Astrophysical Journal, Supplement Series*, **2000**, 127, 357-363	8	7
130	Damage evolution in dynamic deformation of silicon carbide. *Acta Materialia*, **2000**, 48, 2399-2420	8.4	99
129	Quasi-static and dynamic mechanical response of Haliotis rufescens (abalone) shells. *Acta Materialia*, **2000**, 48, 2383-2398	8.4	299
128	Self-organization of shear bands in Ti, Ti-6%Al-4%V, and 304 stainless steel. *European Physical Journal Special Topics*, **2000**, 10, Pr9-269-Pr9-274		4
127	Solid-state experiments at high pressure and strain rate. *Physics of Plasmas*, **2000**, 7, 1999-2006	2.1	57
126	Observation and modeling of dynamic recrystallization in high-strain, high-strain rate deformation of metals. *European Physical Journal Special Topics*, **2000**, 10, Pr9-51-Pr9-56		14
125	Self-organization of adiabatic shear bands in Ti, Ti-6Al-4V and stainless steel. *AIP Conference Proceedings*, **2000**,	0	3
124	Transient x-ray diffraction used to diagnose shock compressed Si crystals on the Nova laser. *Review of Scientific Instruments*, **1999**, 70, 629-632	1.7	27
123	Shock consolidation: microstructurally-based analysis and computational modeling. *Acta Materialia*, **1999**, 47, 2089-2108	8.4	60
122	Spontaneous and forced shear localization in high-strain-rate deformation of tantalum. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1999**, 268, 70-82	5.3	46
121	High pressure solid state experiments on the nova laser. *International Journal of Impact Engineering* , **1999**, 23, 409-419	4	3
120	On the negative poisson ratio in monocrystalline zinc. *Scripta Materialia*, **1999**, 40, 975-977	5.6	22
119	High-strain-rate deformation of granular silicon carbide. *Acta Materialia*, **1998**, 46, 4037-4065	8.4	53
118	Self-organization in the initiation of adiabatic shear bands. *Acta Materialia*, **1998**, 46, 327-340	8.4	89
117	Shear localization and chemical reaction in high-strain, high-strain-rate deformation of Ti□i powder mixtures. *Acta Materialia*, **1998**, 46, 3033-3046	8.4	34
116	Strain-induced structural changes and chemical reactions□. Modelling of reactions in shear band. *Acta Materialia*, **1998**, 46, 5947-5963	8.4	22

115	Strain-induced structural changes and chemical reactions I. Thermomechanical and kinetic models. *Acta Materialia*, **1998**, 46, 5929-5945	8.4	42
114	Effect of strain rate on plastic flow and failure in polycrystalline tungsten. *Acta Materialia*, **1998**, 46, 6267-6290	8.4	73
113	High-strain-rate deformation and comminution of silicon carbide. *Journal of Applied Physics*, **1998**, 83, 4660-4671	2.5	57
112	Shear localization and chemical reaction in Ti–Si and Nb–Si powder mixtures: Thermochemical analysis. *Journal of Applied Physics*, **1998**, 84, 3098-3106	2.5	13
111	h-BN <- w-BN phase transition under dynamic-static compression. *Journal of Materials Science Letters*, **1997**, 16, 1625-1627		5
110	Shock-induced deformation twinning in tantalum. *Acta Materialia*, **1997**, 45, 157-175	8.4	126
109	High temperature shock consolidation of hard ceramic powders. *Physica B: Condensed Matter*, **1997**, 239, 1-5	2.8	30
108	Shear localization and recrystallization in high-strain, high-strain-rate deformation of tantalum. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **1997**, 229, 23-41	5.3	137
107	Quasistatic and dynamic regimes of granular material deformation under impulse loading. *Journal of the Mechanics and Physics of Solids*, **1997**, 45, 1955-1999	5	59
106	Shear-Induced Exothermic Chemical Reactions. *European Physical Journal Special Topics*, **1997**, 07, C3-27-C3-32		2
105	High-Strain, High-Strain Rate Deformation, Shear Localization and Recrystallization in Tantalum. *European Physical Journal Special Topics*, **1997**, 07, C3-435-C3-440		3
104	Effect of Mo on microstructure and mechanical properties of TiC–Ni-based cermets produced by combustion synthesis–impact forging technique. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1996**, 206, 71-80	5.3	48
103	An equation describing the consolidation of combustion synthesized titanium diboride. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **1996**, 39, 107-110	3.1	4
102	Shear localization in high-strain-rate deformation of granular alumina. *Acta Materialia*, **1996**, 44, 2017-2026	8.4	45
101	Dynamic consolidation/hot isostatic pressing of SiC. *Journal of Materials Science*, **1996**, 31, 252-261	4.3	9
100	Combustion Synthesis/Dynamic Densification of a TiB2-SiC Composite. *Journal of the American Ceramic Society*, **1996**, 79, 177-182	3.8	43
99	Microstructural Aspects of Dynamic Failure **1996**, 25-70		11
98	Consolidation of Combustion-Synthesized Titanium Diboride-Based Materials. *Journal of the American Ceramic Society*, **1995**, 78, 275-284	3.8	34

97	High-strain, high-strain-rate behavior of tantalum. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1995**, 26, 2493-2501	2.3	105
96	The structure of controlled shear bands in dynamically deformed reactive mixtures. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1995**, 26, 2511-2519	2.3	36
95	The effect of grain size on the high-strain, high-strain-rate behavior of copper. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1995**, 26, 2881-2893	2.3	223
94	Combustion synthesis in the Ti-C-Ni-Mo system: Part I. Micromechanisms. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1995**, 26, 3001-3009	2.3	42
93	Combustion synthesis in the Ti-C-Ni-Mo system: Part II. Analysis. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1995**, 26, 3011-3019	2.3	31
92	The one-step synthesis of dense titanium-carbide tiles. *Jom*, **1995**, 47, 23-25	2.1	5
91	Synthesis of nanocrystalline titanium carbide by spark erosion. *Scripta Metallurgica Et Materialia*, **1995**, 32, 805-808		24
90	Effect of shock pressure and plastic strain on chemical reactions in Nb?Si and Mo?Si systems. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **1995**, 201, 150-158	5.3	26
89	Shock synthesis of nickel-aluminides. *AIP Conference Proceedings*, **1994**,	0	1
88	**1994**,		1172
87	Controlled high-rate localized shear in porous reactive media. *Applied Physics Letters*, **1994**, 65, 3069-3073	3.4	58
86	Evolution of microstructure and shear-band formation in □hcp titanium. *Mechanics of Materials*, **1994**, 17, 175-193	3.3	219
85	Shock synthesis of silicides□ experimentation and microstructural evolution. *Acta Metallurgica Et Materialia*, **1994**, 42, 701-714		48
84	Dynamic recrystallization in high-strain, high-strain-rate plastic deformation of copper. *Acta Metallurgica Et Materialia*, **1994**, 42, 3183-3195		318
83	Shock synthesis of silicides□. Thermodynamics and kinetics. *Acta Metallurgica Et Materialia*, **1994**, 42, 715-729		54
82	Constitutive description of work- and shock-hardened copper. *Scripta Metallurgica Et Materialia*, **1994**, 30, 933-938		24
81	Plastic Deformation in Shock Waves **1994**, 382-447		4
80	The Role of Thermal Energy in Shock Consolidation **1993**, 145-176		5

79	Identification of stress-induced nucleation sites for martensite in Fe-31.8 wt% Ni-0.02 wt% C alloy. *Acta Metallurgica Et Materialia*, **1992**, 40, 413-417		14
78	SHOCK SYNTHESIS OF SILICIDES **1992**, 629-632		1
77	Hot dynamic consolidation of hard ceramics. *Journal of Materials Science*, **1992**, 27, 5470-5476	4.3	27
76	Densification of Reaction-Synthesized Titanium Carbide by High-Velocity Forging. *Journal of the American Ceramic Society*, **1992**, 75, 592-602	3.8	39
75	Dynamic compaction of titanium. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1992**, 23, 3251-3261		
74	Reaction synthesis/dynamic compaction of titanium diboride. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1992**, 23, 77-86		39
73	Microstructural characterization of self-propagating high-temperature synthesis/ dynamically compacted and hot-pressed titanium carbides. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1992**, 23, 87-97		31
72	Dynamic compaction of titanium aluminides by explosively generated shock waves: Microstructure and mechanical properties. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1992**, 23, 3251-3261		4
71	Shock consolidation of Al?Li alloy powders. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1991**, 132, 257-265	5.3	9
70	Shock densification/hot isostatic pressing of titanium aluminide. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1991**, 22, 2667-2676		10
69	Dynamic compaction of titanium aluminides by explosively generated shock waves: Experimental and materials systems. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1991**, 22, 685-695		36
68	Shock synthesis and synthesis-assisted shock consolidation of suicides. *Journal of Materials Science*, **1991**, 26, 601-611	4.3	35
67	Dynamic consolidation of rapidly solidified titanium alloy powders by explosives. *Journal of Materials Science*, **1991**, 26, 1277-1286	4.3	8
66	HIGH STRAIN, HIGH STRAIN-RATE DEFORMATION OF COPPER. *European Physical Journal Special Topics*, **1991**, 01, C3-11-C3-17		2
65	Effect of metallurgical parameters on shear band formation in low-carbon (~0.20 Wt Pct) steels. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1990**, 21, 3153-3164		70
64	Observation of an adiabatic shear band in AISI 4340 steel by high-voltage transmission electron microscopy. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1990**, 21, 707-716		103
63	Reaction-assisted shock consolidation of RSR Ti3Al alloys. *Journal of Materials Research*, **1990**, 5, 302-312	2.5	13
62	The prospects for superplasticity at high strain rates: Preliminary considerations and an example. *Scripta Metallurgica Et Materialia*, **1990**, 24, 605-610		59

61	Effect of stress state and microstructural parameters on impact damage of alumina-based ceramics. *Journal of Materials Science*, **1989**, 24, 2516-2532	4.3	43
60	An improved method for shock consolidation of powders. *Acta Metallurgica*, **1988**, 36, 925-936		98
59	Martensitic transformation induced by a tensile stress pulse in Fe-22.5 wt% Ni-4wt% Mn alloy. *Acta Metallurgica*, **1988**, 36, 1085-1098		17
58	Warm shock consolidation of IN 718 powder. *Journal of Materials Science*, **1988**, 23, 1786-1804	4.3	33
57	Synthesis of Novel Aluminide-Based Materials. *Jom*, **1988**, 40, 18-20	2.1	4
56	MARTENSITIC TRANSFORMATION INDUCED BY TENSILE STRESS PULSES. *Journal De Physique Colloque*, **1988**, 49, C3-355-C3-362		4
55	STRESS-WAVE-INDUCED DAMAGE IN ALUMINA. *Journal De Physique Colloque*, **1988**, 49, C3-333-C3-338		2
54	Mossbauer study of shock-induced effects in the ordered alloy Fe50Ni50in meteorites. *Journal of Physics F: Metal Physics*, **1987**, 17, 1993-1997		12
53	Numerical Analysis of Adiabatic Shear Band in an Early Stage of Its Propagation **1987**, 203-212		1
52	Kinetics of isothermal martensitic transformation. *Progress in Materials Science*, **1986**, 30, 1-37	42.2	55
51	Numerical modeling of the propagation of an adiabatic shear band. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1986**, 17, 443-450		13
50	Stresses induced in iron-ore pellets by hydrogen reduction. *Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science*, **1986**, 17, 217-227		6
49	Kinetics of martensitic transformation induced by a tensile stress pulse. *Acta Metallurgica*, **1986**, 34, 1625-1641		21
48	Observation of an adiabatic shear band in titanium by high-voltage transmission electron microscopy. *Acta Metallurgica*, **1986**, 34, 2493-2499		147
47	A continuous indentation test for metals. *Acta Metallurgica*, **1986**, 34, 313-324		6
46	Shock Consolidation of In-100 Nickel-Base Superalloy Powder **1986**, 731-736		2
45	Mechanical and thermal response of shock-consolidated Mar-M 200 rapidly-solidified powder. *Journal of Materials Science*, **1985**, 20, 2133-2140	4.3	16
44	Discussion of pressure-shear impact and the dynamic viscoplastic response of metals. *Mechanics of Materials*, **1985**, 4, 387-393	3.3	4

43	Adiabatic shear localization in titanium and Ti-6 pct Al-4 pct V alloy. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1985**, 16, 761-775		125
42	Inhomogeneities of shock-wave deformation in Fe-32 wt. % Ni-0.035 wt. % C alloy. *Journal of Applied Physics*, **1985**, 58, 2791-2794	2.5	3
41	MARTENSITIC TRANSFORMATION INDUCED BY TENSILE STRESS WAVES **1984**, 411-414		1
40	Dynamic fracture (spalling) of metals. *Progress in Materials Science*, **1983**, 28, 1-96	42.2	262
39	The effect of polycrystallinity on the shock wave response of Fe-34.5wt.%Ni and Fe-15wt.%Cr-15wt.%Ni. *Materials Science and Engineering*, **1983**, 57, 113-126		11
38	The attenuation of shock waves in nickel: Second report. *Materials Science and Engineering*, **1983**, 59, 235-249		19
37	Reply to comments on A model for the effect of grain size on the yield stress of metals *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1983**, 48, L59-L61		
36	Propagation of Stress Waves in Metals **1983**, 17-82		2
35	Metallurgical Effects of Shock and Pressure Waves in Metals **1983**, 83-121		5
34	A model for the effect of grain size on the yield stress of metals. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1982**, 46, 737-759		228
33	Correlation between texture and substructure of conventionally and shock-wave-deformed aluminum. *Materials Science and Engineering*, **1982**, 54, 113-120		16
32	Shock-Wave Consolidation of Rapidly Solidified Superalloy Powders. *Journal of Metals*, **1981**, 33, 21-26		8
31	The effects of shock-loading temperature and pulse duration on the tensile response of AISI 304 stainless steel. *Materials Science and Engineering*, **1981**, 51, 261-263		11
30	Defect Generation in Shock-Wave Deformation **1981**, 487-530		26
29	The Attenuation of Shock Waves in Nickel **1981**, 433-452		0
28	Thermomechanical Processing by Shock Waves: An Overview **1981**, 805-826		
27	Design of Uniaxial Strain Shock Recovery Experiments **1981**, 341-373		26
26	On the growth of lenticular martensite. *Acta Metallurgica*, **1980**, 28, 757-770		16

25	The effects of temperature and pulse duration on the shock-loading response of nickel. *Materials Science and Engineering*, **1980**, 45, 143-152	10
24	A technique for obtaining shock-wave parameters using wave superposition in low-carbon steel. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1980**, 11, 1737-1745	5
23	Comments on the electroplastic effect in aluminum. *Scripta Metallurgica*, **1980**, 14, 1033-1034	1
22	An estimate of the nucleation time in the martensitic transformation. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1979**, 10, 1723-1727	17
21	On stress-relaxation experiments and their significance under strain-aging conditions. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1979**, 10, 33-40	15
20	A model for the formation of annealing twins in F.C.C. metals and alloys. *Acta Metallurgica*, **1978**, 26, 951-962	175
19	A mechanism for dislocation generation in shock-wave deformation. *Scripta Metallurgica*, **1978**, 12, 21-26	127
18	The Effects of Shock Loading and Grain Refining on the Kinetics of Deformation Induced Martensite in Fe-31% Ni-0.1%C. *Transactions of the Japan Institute of Metals*, **1977**, 18, 803-806	1
17	Concerning stress relaxation experiments in commercial purity titanium. *Scripta Metallurgica*, **1977**, 11, 193-195	6
16	Fractography of a metastable austenite. *Metallography*, **1977**, 10, 201-208	2
15	A model for elastic precursor waves in the shock loading of polycrystalline metals. *Materials Science and Engineering*, **1977**, 30, 99-111	35
14	Work softening in shock-loaded nickel. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1977**, 8, 1581-1583	17
13	Discussion of residual strength of shock loaded RMI 38644. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1977**, 8, 1641-1644	4
12	Comments on flow stress-grain size relationship in aluminum. *Scripta Metallurgica*, **1976**, 10, 159-160	18
11	Inhomogeneities of transformation in shock-loaded type 304 stainless steel. *Scripta Metallurgica*, **1976**, 10, 255-256	1
10	Thermomechcmical processing of Inconel 718 by shock-wave deformation. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1976**, 7, 179-190	18
9	The effect of grain size on the shock-loading response of 304-type stainless steel. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1976**, 7, 1943-1950	14
8	The effect of grain size on the shock-loading response of 304-type stainless steel. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1976**, 7, 1943-1950	46

7	Shock-front irregularities in polycrystalline metals. *Materials Science and Engineering*, **1976**, 24, 131-135		33
6	Shock-induced martensite formation in a Fe-31% Ni-0.1% C alloy. *Materials Science and Engineering*, **1976**, 24, 289-292		10
5	The effect of surface condition on shock hardening. *Scripta Metallurgica*, **1975**, 9, 667-669		4
4	A geometrical method for the determination and indexing of electron diffraction patterns. *Metallography*, **1974**, 7, 231-240		
3	Observations on the ferromagnetic □phase of the Cu□Mn□Sn system. *Journal of Applied Crystallography*, **1973**, 6, 39-41	3.8	6
2	The enthalpies of formation of ferromagnetic Cu-Mn-Sn alloys. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1972**, 3, 2544-2544		0
1	Mechanical Behavior of Materials466-524		2