

Robert O. Ritchie

List of Publications by Year in Descending Order

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

744
papers

54,797
citations

114
h-index

208
g-index

777
ext. papers

63,825
ext. citations

8
avg, IF

8.21
L-index

#	Paper	IF	Citations
744	Cantor-derived medium-entropy alloys: bridging the gap between traditional metallic and high-entropy alloys. <i>Journal of Materials Research and Technology</i> , 2022 , 17, 1868-1895	5.5	5
743	Bone manganese is a sensitive biomarker of ongoing elevated manganese exposure, but does not accumulate across the lifespan. <i>Environmental Research</i> , 2022 , 204, 112355	7.9	1
742	Fatigue-crack propagation behavior in a high-carbon chromium SUJ2 bearing steel: Role of microstructure. <i>International Journal of Fatigue</i> , 2022 , 156, 106693	5	1
741	Comparison of toughening mechanisms in natural silk-reinforced composites with three epoxy resin matrices. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022 , 154, 106760	8.4	1
740	Manipulating internal flow units toward favorable plasticity in Zr-based bulk-metallic glasses by hydrogenation. <i>Journal of Materials Science and Technology</i> , 2022 , 102, 36-45	9.1	3
739	Bioinspired tungsten-copper composites with Bouligand-type architectures mimicking fish scales. <i>Journal of Materials Science and Technology</i> , 2022 , 96, 21-30	9.1	2
738	Physical Properties of High Entropy Alloys 2022 , 474-483		
737	Role of Chemical Disorder on Radiation-Induced Defect Production and Damage Evolution in NiFeCoCr. <i>Journal of Nuclear Materials</i> , 2022 , 153689	3.3	0
736	Interfacial characterization and its influence on the corrosion behavior of Mg-SiO ₂ nanocomposites. <i>Acta Materialia</i> , 2022 , 230, 117840	8.4	1
735	Response to Comment on "Cryoforged nanotwinned titanium with ultrahigh strength and ductility".. <i>Science</i> , 2022 , 376, eabo5247	33.3	
734	Conductive ink with circular life cycle for printed electronics.. <i>Advanced Materials</i> , 2022 , e2202177	24	1
733	Anomalous size effect on yield strength enabled by compositional heterogeneity in high-entropy alloy nanoparticles.. <i>Nature Communications</i> , 2022 , 13, 2789	17.4	0
732	Modeling the Hydrogen Effect on the Constitutive Response of a Low Carbon Steel in Cyclic Loading. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2021 , 88,	2.7	1
731	Diffusion-mediated chemical concentration variation and void evolution in ion-irradiated NiCoFeCr high-entropy alloy 2021 , 36, 298		3
730	The dynamic evolution of swelling in nickel concentrated solid solution alloys through in situ property monitoring. <i>Applied Materials Today</i> , 2021 , 25, 101187	6.6	2
729	Magnetically driven short-range order can explain anomalous measurements in CrCoNi. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	13
728	Architected cellular materials: A review on their mechanical properties towards fatigue-tolerant design and fabrication. <i>Materials Science and Engineering Reports</i> , 2021 , 144, 100606	30.9	102

727	Near-complete depolymerization of polyesters with nano-dispersed enzymes. <i>Nature</i> , 2021 , 592, 558-563	30.4	37
726	Strong and Tough Bioinspired Additive-Manufactured Dual-Phase Mechanical Metamaterial Composites. <i>Journal of the Mechanics and Physics of Solids</i> , 2021 , 149, 104341	5	17
725	Compressive properties of 3-D printed MgNiTi interpenetrating-phase composite: Effects of strain rate and temperature. <i>Composites Part B: Engineering</i> , 2021 , 215, 108783	10	4
724	Toughening materials: enhancing resistance to fracture. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021 , 379, 20200437	3	6
723	Optimizing the microstructures and mechanical properties of Al-Cu-based alloys with large solidification intervals by coupling travelling magnetic fields with sequential solidification. <i>Journal of Materials Science and Technology</i> , 2021 , 61, 100-113	9.1	8
722	Annealed microstructure dependent corrosion behavior of Ti-6Al-3Nb-2Zr-1Mo alloy. <i>Journal of Materials Science and Technology</i> , 2021 , 62, 234-248	9.1	28
721	Origin of strong solid solution strengthening in the CrCoNi-W medium entropy alloy. <i>Journal of Materials Science and Technology</i> , 2021 , 73, 101-107	9.1	14
720	Heterostructured materials: superior properties from hetero-zone interaction. <i>Materials Research Letters</i> , 2021 , 9, 1-31	7.4	160
719	Diffusion-mediated chemical concentration variation and void evolution in ion-irradiated NiCoFeCr high-entropy alloy. <i>Journal of Materials Research</i> , 2021 , 36, 298-310	2.5	8
718	Application to subcritical crack growth 2021 , 101-138		
717	Micromechanics modeling of fracture 2021 , 81-99		
716	Nonlinear-elastic fracture mechanics (NLEFM) 2021 , 49-74		
715	Linear-elastic fracture mechanics (LEFM) 2021 , 11-48		
714	Universal nature of the saddle states of structural excitations in metallic glasses. <i>Materials Today Physics</i> , 2021 , 17, 100359	8	6
713	Hydration-induced reversible deformation of the pine cone. <i>Acta Biomaterialia</i> , 2021 , 128, 370-383	10.8	7
712	In situ observation of the deformation and fracture of an alumina-alumina ceramic-matrix composite at elevated temperature using x-ray computed tomography. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 4217-4230	6	8
711	Impact of hydration on the mechanical properties and damage mechanisms of natural silk fibre reinforced composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2021 , 147, 106458	8.4	2
710	Atomistic simulations of dislocation mobility in refractory high-entropy alloys and the effect of chemical short-range order. <i>Nature Communications</i> , 2021 , 12, 4873	17.4	21

709	An Amorphous Peri-Implant Ligament with Combined Osteointegration and Energy-Dissipation. <i>Advanced Materials</i> , 2021 , 33, e2103727	24	3
708	Cryoforged nanotwinned titanium with ultrahigh strength and ductility. <i>Science</i> , 2021 , 373, 1363-1368	33.3	28
707	Flaw-insensitive fracture of a micrometer-sized brittle metallic glass. <i>Acta Materialia</i> , 2021 , 218, 117219	8.4	5
706	Compression fatigue properties and damage mechanisms of a bioinspired nacre-like ceramic-polymer composite. <i>Scripta Materialia</i> , 2021 , 203, 114089	5.6	3
705	Full-field characterisation of oxide-oxide ceramic-matrix composites using X-ray computed micro-tomography and digital volume correlation under load at high temperatures. <i>Materials and Design</i> , 2021 , 208, 109899	8.1	0
704	Dissipative dual-phase mechanical metamaterial composites via architectural design. <i>Extreme Mechanics Letters</i> , 2021 , 48, 101442	3.9	4
703	Dual-gradient structure leads to optimized combination of high fracture resistance and strength-ductility synergy with minimized final catastrophic failure. <i>Journal of Materials Research and Technology</i> , 2021 , 15, 901-910	5.5	1
702	First-principles calculation of lattice distortions in four single phase high entropy alloys with experimental validation. <i>Materials and Design</i> , 2021 , 209, 110071	8.1	3
701	Collagen Fiber Orientation Is Coupled with Specific Nano-Compositional Patterns in and Osteons Modulating Their Biomechanical Properties. <i>ACS Nano</i> , 2021 , 15, 455-467	16.7	8
700	Amorphization in extreme deformation of the CrMnFeCoNi high-entropy alloy. <i>Science Advances</i> , 2021 , 7,	14.3	45
699	An in situ ambient and cryogenic transmission electron microscopy study of the effects of temperature on dislocation behavior in CrCoNi-based high-entropy alloys with low stacking-fault energy. <i>Applied Physics Letters</i> , 2021 , 119, 261903	3.4	0
698	Short-range order and its impact on the CrCoNi medium-entropy alloy. <i>Nature</i> , 2020 , 581, 283-287	50.4	254
697	Making ultrastrong steel tough by grain-boundary delamination. <i>Science</i> , 2020 , 368, 1347-1352	33.3	73
696	3D printed Mg-NiTi interpenetrating-phase composites with high strength, damping capacity, and energy absorption efficiency. <i>Science Advances</i> , 2020 , 6, eaba5581	14.3	25
695	Active defense mechanisms of thorny catfish. <i>Materials Today</i> , 2020 , 38, 35-48	21.8	3
694	Dislocation loop evolution and radiation hardening in nickel-based concentrated solid solution alloys. <i>Journal of Nuclear Materials</i> , 2020 , 538, 152247	3.3	11
693	The influence of mean strain on the high-cycle fatigue of Nitinol with application to medical devices. <i>Journal of the Mechanics and Physics of Solids</i> , 2020 , 143, 104057	5	9
692	Mechanical properties and toughening mechanisms of natural silkworm silks and their composites. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020 , 110, 103942	4.1	5

691	Controlled Cryogelation and Catalytic Cross-Linking Yields Highly Elastic and Robust Silk Fibroin Scaffolds. <i>ACS Biomaterials Science and Engineering</i> , 2020 , 6, 4512-4522	5.5	6
690	Eutectic Crystallization: Multi-Step Crystallization of Self-Organized Spiral Eutectics (Small 8/2020). <i>Small</i> , 2020 , 16, 2070039	11	
689	Interpreting nanovoids in atom probe tomography data for accurate local compositional measurements. <i>Nature Communications</i> , 2020 , 11, 1022	17.4	16
688	Extreme Fermi Surface Smearing in a Maximally Disordered Concentrated Solid Solution. <i>Physical Review Letters</i> , 2020 , 124, 046402	7.4	8
687	Compressive ductility and fracture resistance in CuZr-based shape-memory metallic-glass composites. <i>International Journal of Plasticity</i> , 2020 , 128, 102687	7.6	10
686	Real-time observations of TRIP-induced ultrahigh strain hardening in a dual-phase CrMnFeCoNi high-entropy alloy. <i>Nature Communications</i> , 2020 , 11, 826	17.4	72
685	Multi-Step Crystallization of Self-Organized Spiral Eutectics. <i>Small</i> , 2020 , 16, e1906146	11	6
684	Unfolding the complexity of phonon quasi-particle physics in disordered materials. <i>Npj Computational Materials</i> , 2020 , 6,	10.9	7
683	Scalable Electrically Conductive Spray Coating Based on Block Copolymer Nanocomposites. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 8687-8694	9.5	7
682	Long-Term Immobilization in Elderly Females Causes a Specific Pattern of Cortical Bone and Osteocyte Deterioration Different From Postmenopausal Osteoporosis. <i>Journal of Bone and Mineral Research</i> , 2020 , 35, 1343-1351	6.3	21
681	Ice-templated porous tungsten and tungsten carbide inspired by natural wood. <i>Journal of Materials Science and Technology</i> , 2020 , 45, 187-197	9.1	17
680	Site occupancy of alloying elements in δ phase of nickel-base single crystal superalloys. <i>Intermetallics</i> , 2020 , 121, 106772	3.5	8
679	Tensile creep behavior of an equiatomic CoCrNi medium entropy alloy. <i>Intermetallics</i> , 2020 , 121, 106775	3.5	11
678	On the impact toughness of gradient-structured metals. <i>Acta Materialia</i> , 2020 , 193, 125-137	8.4	26
677	Nanoparticle additions promote outstanding fracture toughness and fatigue strength in a cast AlCu alloy. <i>Materials and Design</i> , 2020 , 186, 108221	8.1	12
676	On the exceptional damage-tolerance of gradient metallic materials. <i>Materials Today</i> , 2020 , 32, 94-107	21.8	39
675	Intrinsic toughness of the bulk-metallic glass Vitreloy 105 measured using micro-cantilever beams. <i>Acta Materialia</i> , 2020 , 183, 242-248	8.4	12
674	Electron-phonon coupling induced defect recovery and strain relaxation in Ni and equiatomic NiFe alloy. <i>Computational Materials Science</i> , 2020 , 173, 109394	3.2	4

673	Structural Orientation and Anisotropy in Biological Materials: Functional Designs and Mechanics. <i>Advanced Functional Materials</i> , 2020 , 30, 1908121	15.6	25
672	On the Strength of Hair across Species. <i>Matter</i> , 2020 , 2, 136-149	12.7	8
671	Interfacial toughening effect of suture structures. <i>Acta Biomaterialia</i> , 2020 , 102, 75-82	10.8	9
670	X-ray tomography study on the crushing strength and irradiation behaviour of dedicated tristructural isotropic nuclear fuel particles at 1000 °C. <i>Materials and Design</i> , 2020 , 187, 108382	8.1	5
669	From suppressed void growth to significant void swelling in NiCoFeCr complex concentrated solid-solution alloy. <i>Materialia</i> , 2020 , 9, 100603	3.2	15
668	Processing, Microstructures and Mechanical Properties of a Ni-Based Single Crystal Superalloy. <i>Crystals</i> , 2020 , 10, 572	2.3	8
667	Tough Nature-Inspired Helicoidal Composites with Printing-Induced Voids. <i>Cell Reports Physical Science</i> , 2020 , 1, 100109	6.1	12
666	The role of collagen in the dermal armor of the boxfish. <i>Journal of Materials Research and Technology</i> , 2020 , 9, 13825-13841	5.5	3
665	Offering Toughness and Protection, Arapaima Scales Provide Effective Defense against Predation. <i>Matter</i> , 2020 , 3, 1979-1980	12.7	
664	On the gular sac tissue of the brown pelican: Structural characterization and mechanical properties. <i>Acta Biomaterialia</i> , 2020 , 118, 161-181	10.8	0
663	Ab initio modeling of the energy landscape for screw dislocations in body-centered cubic high-entropy alloys. <i>Npj Computational Materials</i> , 2020 , 6,	10.9	30
662	Structure and Mechanical Adaptability of a Modern Elasmoid Fish Scale from the Common Carp. <i>Matter</i> , 2020 , 3, 842-863	12.7	15
661	Nacre toughening due to cooperative plastic deformation of stacks of co-oriented aragonite platelets. <i>Communications Materials</i> , 2020 , 1,	6	10
660	Human Cortical Bone as a Structural Material 2020 , 20-44		
659	Effects of cryogenic temperature and grain size on fatigue-crack propagation in the medium-entropy CrCoNi alloy. <i>Acta Materialia</i> , 2020 , 200, 351-365	8.4	23
658	Four Dimensional Scanning Transmission Electron Microscopy during the in situ Annealing of a CuZrAl Bulk Metallic Glass. <i>Microscopy and Microanalysis</i> , 2019 , 25, 1470-1471	0.5	
657	Strong, Fracture-Resistant Biomimetic Silicon Carbide Composites with Laminated Interwoven Nanoarchitectures Inspired by the Crustacean Exoskeleton. <i>ACS Applied Nano Materials</i> , 2019 , 2, 1111-1119	5.6	16
656	Facile self-assembly synthesis of FeO /graphene oxide for enhanced photo-Fenton reaction. <i>Environmental Pollution</i> , 2019 , 248, 229-237	9.3	34

655	Bioinspired Nacre-Like Alumina with a Metallic Nickel Compliant Phase Fabricated by Spark-Plasma Sintering. <i>Small</i> , 2019 , 15, e1900573	11	11
654	High-entropy alloys. <i>Nature Reviews Materials</i> , 2019 , 4, 515-534	73.3	932
653	Helical van der Waals crystals with discretized Eshelby twist. <i>Nature</i> , 2019 , 570, 358-362	50.4	52
652	Irradiation effects of medium-entropy alloy NiCoCr with and without pre-indentation. <i>Journal of Nuclear Materials</i> , 2019 , 524, 60-66	3.3	12
651	Direct measurement of nanostructural change during in situ deformation of a bulk metallic glass. <i>Nature Communications</i> , 2019 , 10, 2445	17.4	30
650	On the onset of deformation twinning in the CrFeMnCoNi high-entropy alloy using a novel tensile specimen geometry. <i>Intermetallics</i> , 2019 , 110, 106469	3.5	15
649	Defect evolution in Ni and NiCoCr by in situ 2.8 MeV Au irradiation. <i>Journal of Nuclear Materials</i> , 2019 , 523, 502-509	3.3	8
648	Temperature-dependent defect accumulation and evolution in Ni-irradiated NiFe concentrated solid-solution alloy. <i>Journal of Nuclear Materials</i> , 2019 , 519, 1-9	3.3	9
647	Investigating sluggish diffusion in a concentrated solid solution alloy using ion irradiation with in situ TEM. <i>Intermetallics</i> , 2019 , 110, 106461	3.5	11
646	Temperature and load-ratio dependent fatigue-crack growth in the CrMnFeCoNi high-entropy alloy. <i>Journal of Alloys and Compounds</i> , 2019 , 794, 525-533	5.7	45
645	How Water Can Affect Keratin: Hydration-Driven Recovery of Bighorn Sheep (<i>Ovis Canadensis</i>) Horns. <i>Advanced Functional Materials</i> , 2019 , 29, 1901077	15.6	13
644	On the Origins of Fracture Toughness in Advanced Teleosts: How the Swordfish Sword's Bone Structure and Composition Allow for Slashing under Water to Kill or Stun Prey. <i>Advanced Science</i> , 2019 , 6, 1900287	13.6	8
643	Structural origins for the generation of strength, ductility and toughness in bulk-metallic glasses using hydrogen microalloying. <i>Acta Materialia</i> , 2019 , 171, 216-230	8.4	25
642	Light but tough bio-inherited materials: Luffa sponge based nickel-plated composites. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019 , 94, 10-18	4.1	17
641	Mechanical Competence and Bone Quality Develop During Skeletal Growth. <i>Journal of Bone and Mineral Research</i> , 2019 , 34, 1461-1472	6.3	28
640	Shape-preserving machining produces gradient nanolaminate medium entropy alloys with high strain hardening capability. <i>Acta Materialia</i> , 2019 , 170, 176-186	8.4	27
639	Real-time nanoscale observation of deformation mechanisms in CrCoNi-based medium- to high-entropy alloys at cryogenic temperatures. <i>Materials Today</i> , 2019 , 25, 21-27	21.8	81
638	A comparative characterization of defect structure in NiCo and NiFe equimolar solid solution alloys under in situ electron irradiation. <i>Scripta Materialia</i> , 2019 , 166, 96-101	5.6	3

637	Predicting surface deformation during mechanical attrition of metallic alloys. <i>Npj Computational Materials</i> , 2019 , 5,	10.9	16
636	A natural energy absorbent polymer composite: The equine hoof wall. <i>Acta Biomaterialia</i> , 2019 , 90, 267-278		17
635	On the Fracture Behavior of Bulk Metallic Glasses. <i>Structural Integrity</i> , 2019 , 331-332	0.2	
634	Interpreting Voids in Atom Probe Tomography Data via Experiment and Theory. <i>Microscopy and Microanalysis</i> , 2019 , 25, 290-291	0.5	
633	Investigating Effects of Alloy Chemical Complexity on Helium Bubble Formation by Accurate Segregation Measurements Using Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2019 , 25, 1558-1559	0.5	4
632	Synthesis of bioinspired ice-templated bulk metallic glass-alumina composites with intertwined dendritic structure. <i>Scripta Materialia</i> , 2019 , 172, 159-164	5.6	8
631	Integrating tough Antheraea pernyi silk and strong carbon fibres for impact-critical structural composites. <i>Nature Communications</i> , 2019 , 10, 3786	17.4	27
630	Biomimetics: On the Origins of Fracture Toughness in Advanced Teleosts: How the Swordfish Sword's Bone Structure and Composition Allow for Slashing under Water to Kill or Stun Prey (Adv. Sci. 12/2019). <i>Advanced Science</i> , 2019 , 6, 1970072	13.6	1
629	Hyperelastic phase-field fracture mechanics modeling of the toughening induced by Bouligand structures in natural materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2019 , 131, 204-220	5	32
628	Multiscale Toughening Mechanisms in Biological Materials and Bioinspired Designs. <i>Advanced Materials</i> , 2019 , 31, e1901561	24	160
627	Plastic deformation mechanism of TiNbTaZrD alloy at cryogenic temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 765, 138293	5.3	5
626	Arapaima Fish Scale: One of the Toughest Flexible Biological Materials. <i>Matter</i> , 2019 , 1, 1557-1566	12.7	17
625	Effects of 3d electron configurations on helium bubble formation and void swelling in concentrated solid-solution alloys. <i>Acta Materialia</i> , 2019 , 181, 519-529	8.4	23
624	Nature-Inspired Nacre-Like Composites Combining Human Tooth-Matching Elasticity and Hardness with Exceptional Damage Tolerance. <i>Advanced Materials</i> , 2019 , 31, e1904603	24	34
623	Bioinspired nacre-like alumina with a bulk-metallic glass-forming alloy as a compliant phase. <i>Nature Communications</i> , 2019 , 10, 961	17.4	54
622	Characterization of the Interfacial Toughness in a Novel GaN-on-Diamond Material for High-Power RF Devices. <i>ACS Applied Electronic Materials</i> , 2019 , 1, 354-369	4	9
621	Architecture of high-strength aluminum matrix composites processed by a novel microcasting technique. <i>NPG Asia Materials</i> , 2019 , 11,	10.3	19
620	Tuning element distribution, structure and properties by composition in high-entropy alloys. <i>Nature</i> , 2019 , 574, 223-227	50.4	404

619	High-temperature damage-tolerance of coextruded, bioinspired (βacre-like) alumina/nickel compliant-phase ceramics. <i>Scripta Materialia</i> , 2019 , 158, 110-115	5.6	10
618	Mechanical properties of high-entropy alloys with emphasis on face-centered cubic alloys. <i>Progress in Materials Science</i> , 2019 , 102, 296-345	42.2	306
617	Adaptive structural reorientation: Developing extraordinary mechanical properties by constrained flexibility in natural materials. <i>Acta Biomaterialia</i> , 2019 , 86, 96-108	10.8	14
616	Structural architectures with toughening mechanisms in Nature: A review of the materials science of Type-I collagenous materials. <i>Progress in Materials Science</i> , 2019 , 103, 425-483	42.2	46
615	Helium irradiated cavity formation and defect energetics in Ni-based binary single-phase concentrated solid solution alloys. <i>Acta Materialia</i> , 2019 , 164, 283-292	8.4	30
614	Mechanical properties and impact performance of silk-epoxy resin composites modulated by flax fibres. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019 , 117, 357-368	8.4	37
613	Fracture toughness of ultra-high molecular weight polyethylene: A basis for defining the crack-initiation toughness in polymers. <i>Journal of the Mechanics and Physics of Solids</i> , 2019 , 122, 435-449 ⁵		5
612	Radiation-induced extreme elastic and inelastic interactions in concentrated solid solutions. <i>Materials and Design</i> , 2018 , 150, 1-8	8.1	11
611	Spatial correlation of elastic heterogeneity tunes the deformation behavior of metallic glasses. <i>Npj Computational Materials</i> , 2018 , 4,	10.9	46
610	A study of size effects in bioinspired, βacre-like metal-compliant-phase (nickel-alumina) coextruded ceramics. <i>Acta Materialia</i> , 2018 , 148, 147-155	8.4	30
609	Increasing M2(dobdc) Loading in Selective Mixed-Matrix Membranes: A Rubber Toughening Approach. <i>Chemistry of Materials</i> , 2018 , 30, 1484-1495	9.6	34
608	Contributions of Material Properties and Structure to Increased Bone Fragility for a Given Bone Mass in the UCD-T2DM Rat Model of Type 2 Diabetes. <i>Journal of Bone and Mineral Research</i> , 2018 , 33, 1066-1075	6.3	30
607	Fatigue as the missing link between bone fragility and fracture. <i>Nature Biomedical Engineering</i> , 2018 , 2, 62-71	19	37
606	Hydrogen-enhanced-plasticity mediated decohesion for hydrogen-induced intergranular and βquasi-cleavage fracture of lath martensitic steels. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 112, 403-430	5	138
605	Electrically reversible cracks in an intermetallic film controlled by an electric field. <i>Nature Communications</i> , 2018 , 9, 41	17.4	42
604	Microband induced plasticity and the temperature dependence of the mechanical properties of a carbon-doped FeNiMnAlCr high entropy alloy. <i>Materials Characterization</i> , 2018 , 139, 373-381	3.9	25
603	Microscopic mechanisms of deformation transfer in high dynamic range branched nanoparticle deformation sensors. <i>Nature Communications</i> , 2018 , 9, 1155	17.4	3
602	Nature-Inspired Hierarchical Steels. <i>Scientific Reports</i> , 2018 , 8, 5088	4.9	30

601	Influence of compositional complexity on interdiffusion in Ni-containing concentrated solid-solution alloys. <i>Materials Research Letters</i> , 2018 , 6, 293-299	7.4	36
600	Nanometer-scale gradient atomic packing structure surrounding soft spots in metallic glasses. <i>Npj Computational Materials</i> , 2018 , 4,	10.9	24
599	Enhanced strength and ductility of a tungsten-doped CoCrNi medium-entropy alloy. <i>Journal of Materials Research</i> , 2018 , 33, 3301-3309	2.5	31
598	Single-Phase Concentrated Solid-Solution Alloys: Bridging Intrinsic Transport Properties and Irradiation Resistance. <i>Frontiers in Materials</i> , 2018 , 5,	4	31
597	On the theoretical modeling of fatigue crack growth. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 121, 341-362	5	36
596	Enhanced void swelling in NiCoFeCrPd high-entropy alloy by indentation-induced dislocations. <i>Materials Research Letters</i> , 2018 , 6, 584-591	7.4	27
595	In situ Nanobeam Electron Diffraction of Bulk Metallic Glasses. <i>Microscopy and Microanalysis</i> , 2018 , 24, 206-207	0.5	1
594	Tunable stacking fault energies by tailoring local chemical order in CrCoNi medium-entropy alloys. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 8919-8924	11.5	251
593	On the Materials Science of Nature's Arms Race. <i>Advanced Materials</i> , 2018 , 30, e1705220	24	44
592	Chemical complexity induced local structural distortion in NiCoFeMnCr high-entropy alloy. <i>Materials Research Letters</i> , 2018 , 6, 450-455	7.4	35
591	Lattice Distortion and Phase Stability of Pd-Doped NiCoFeCr Solid-Solution Alloys. <i>Entropy</i> , 2018 , 20,	2.8	14
590	Design and strengthening mechanisms in hierarchical architected materials processed using additive manufacturing. <i>International Journal of Mechanical Sciences</i> , 2018 , 149, 150-163	5.5	51
589	Hydration-induced nano- to micro-scale self-recovery of the tooth enamel of the giant panda. <i>Acta Biomaterialia</i> , 2018 , 81, 267-277	10.8	12
588	Novel Defense Mechanisms in the Armor of the Scales of the Living Fossil Coelacanth Fish. <i>Advanced Functional Materials</i> , 2018 , 28, 1804237	15.6	37
587	Melts of CrCoNi-based high-entropy alloys: Atomic diffusion and electronic/atomic structure from ab initio simulation. <i>Applied Physics Letters</i> , 2018 , 113, 111902	3.4	17
586	Irradiation responses and defect behavior of single-phase concentrated solid solution alloys. <i>Journal of Materials Research</i> , 2018 , 33, 3077-3091	2.5	28
585	In situ neutron diffraction study on tensile deformation behavior of carbon-strengthened CoCrFeMnNi high-entropy alloys at room and elevated temperatures. <i>Journal of Materials Research</i> , 2018 , 33, 3192-3203	2.5	6
584	On the understanding of the effects of sample size on the variability in fracture toughness of bulk metallic glasses. <i>Acta Materialia</i> , 2017 , 126, 494-506	8.4	27

583	Characterizing Photon Reabsorption in Quantum Dot-Polymer Composites for Use as Displacement Sensors. <i>ACS Nano</i> , 2017 , 11, 2075-2084	16.7	24
582	Radiation-induced segregation on defect clusters in single-phase concentrated solid-solution alloys. <i>Acta Materialia</i> , 2017 , 127, 98-107	8.4	128
581	Dislocation mechanisms and 3D twin architectures generate exceptional strength-ductility-toughness combination in CrCoNi medium-entropy alloy. <i>Nature Communications</i> , 2017 , 8, 14390	17.4	231
580	Long-fiber reinforced thermoplastic composite lattice structures: Fabrication and compressive properties. <i>Composites Part A: Applied Science and Manufacturing</i> , 2017 , 97, 41-50	8.4	25
579	X-ray absorption investigation of local structural disorder in Ni _{1-x} Fe _x (x = 0.10, 0.20, 0.35, and 0.50) alloys. <i>Journal of Applied Physics</i> , 2017 , 121, 165105	2.5	2
578	Functional gradients and heterogeneities in biological materials: Design principles, functions, and bioinspired applications. <i>Progress in Materials Science</i> , 2017 , 88, 467-498	42.2	331
577	Effect of temperature on the fatigue-crack growth behavior of the high-entropy alloy CrMnFeCoNi. <i>Intermetallics</i> , 2017 , 88, 65-72	3.5	110
576	Multiscale structure and damage tolerance of coconut shells. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017 , 76, 76-84	4.1	27
575	Synchrotron X-ray micro-tomography at the Advanced Light Source: Developments in high-temperature in-situ mechanical testing. <i>Journal of Physics: Conference Series</i> , 2017 , 849, 012043	0.3	6
574	Irradiation-induced damage evolution in concentrated Ni-based alloys. <i>Acta Materialia</i> , 2017 , 135, 54-60	8.4	35
573	High pressure synthesis of a hexagonal close-packed phase of the high-entropy alloy CrMnFeCoNi. <i>Nature Communications</i> , 2017 , 8, 15634	17.4	177
572	Glucocorticoid suppression of osteocyte perilacunar remodeling is associated with subchondral bone degeneration in osteonecrosis. <i>Scientific Reports</i> , 2017 , 7, 44618	4.9	48
571	Mechanisms of radiation-induced segregation in CrFeCoNi-based single-phase concentrated solid solution alloys. <i>Acta Materialia</i> , 2017 , 126, 182-193	8.4	102
570	Suppression of vacancy cluster growth in concentrated solid solution alloys. <i>Acta Materialia</i> , 2017 , 125, 231-237	8.4	35
569	Probing elastically or plastically induced structural heterogeneities in bulk metallic glasses by nanoindentation pop-in tests. <i>AIP Advances</i> , 2017 , 7, 085216	1.5	3
568	Enhancing the Mechanical Toughness of Epoxy-Resin Composites Using Natural Silk Reinforcements. <i>Scientific Reports</i> , 2017 , 7, 11939	4.9	27
567	Understanding of the Elemental Diffusion Behavior in Concentrated Solid Solution Alloys. <i>Journal of Phase Equilibria and Diffusion</i> , 2017 , 38, 434-444	1	49
566	On the question of fractal packing structure in metallic glasses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 8458-8463	11.5	20

565	Atypical fracture with long-term bisphosphonate therapy is associated with altered cortical composition and reduced fracture resistance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 8722-8727	11.5	94
564	Osteocyte-Intrinsic TGF- β Signaling Regulates Bone Quality through Perilacunar/Canalicular Remodeling. <i>Cell Reports</i> , 2017 , 21, 2585-2596	10.6	71
563	Effects of chemical alternation on damage accumulation in concentrated solid-solution alloys. <i>Scientific Reports</i> , 2017 , 7, 4146	4.9	24
562	Damage tolerance of nuclear graphite at elevated temperatures. <i>Nature Communications</i> , 2017 , 8, 15942	7.4	20
561	Quantum critical behavior in the asymptotic limit of high disorder in the medium entropy alloy NiCoCr0.8. <i>Npj Quantum Materials</i> , 2017 , 2,	5	13
560	A comparative study of piscine defense: The scales of <i>Arapaima gigas</i> , <i>Latimeria chalumnae</i> and <i>Atractosteus spatula</i> . <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017 , 73, 1-16	4.1	34
559	Sclerostin-antibody treatment of glucocorticoid-induced osteoporosis maintained bone mass and strength. <i>Osteoporosis International</i> , 2016 , 27, 283-294	5.3	80
558	Influence of chemical disorder on energy dissipation and defect evolution in advanced alloys. <i>Journal of Materials Research</i> , 2016 , 31, 2363-2375	2.5	78
557	Anomalous structure-property relationships in metallic glasses through pressure-mediated glass formation. <i>Physical Review B</i> , 2016 , 93,	3.3	33
556	Mechanisms of Local Stress Sensing in Multifunctional Polymer Films Using Fluorescent Tetrapod Nanocrystals. <i>Nano Letters</i> , 2016 , 16, 5060-7	11.5	20
555	Failure mechanisms of single-crystal silicon electrodes in lithium-ion batteries. <i>Nature Communications</i> , 2016 , 7, 11886	17.4	156
554	Instability Analysis and Free Volume Simulations of Shear Band Directions and Arrangements in Notched Metallic Glasses. <i>Scientific Reports</i> , 2016 , 6, 34878	4.9	17
553	Intrinsic mechanical behavior of femoral cortical bone in young, osteoporotic and bisphosphonate-treated individuals in low- and high energy fracture conditions. <i>Scientific Reports</i> , 2016 , 6, 21072	4.9	44
552	Quantum Critical Behavior in a Concentrated Ternary Solid Solution. <i>Scientific Reports</i> , 2016 , 6, 26179	4.9	36
551	Multi-scale toughening of fibre composites using carbon nanofibres and z-pins. <i>Composites Science and Technology</i> , 2016 , 131, 98-109	8.6	57
550	Toughness and strength of nanocrystalline graphene. <i>Nature Communications</i> , 2016 , 7, 10546	17.4	121
549	Cavitation-Induced Stiffness Reductions in Quantum Dot Polymer Nanocomposites. <i>Chemistry of Materials</i> , 2016 , 28, 2540-2549	9.6	20
548	Exceptional damage-tolerance of a medium-entropy alloy CrCoNi at cryogenic temperatures. <i>Nature Communications</i> , 2016 , 7, 10602	17.4	711

547	Notch fatigue of ultrahigh molecular weight polyethylene (UHMWPE) used in total joint replacements. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 60, 267-279	4.1	15
546	High volume-fraction silk fabric reinforcements can improve the key mechanical properties of epoxy resin composites. <i>Materials and Design</i> , 2016 , 108, 470-478	8.1	34
545	Effects of two-temperature model on cascade evolution in Ni and NiFe. <i>Scripta Materialia</i> , 2016 , 124, 6-10	5.6	37
544	Direct Observation of Defect Range and Evolution in Ion-Irradiated Single Crystalline Ni and Ni Binary Alloys. <i>Scientific Reports</i> , 2016 , 6, 19994	4.9	100
543	Effects of Fe concentration on the ion-irradiation induced defect evolution and hardening in Ni-Fe solid solution alloys. <i>Acta Materialia</i> , 2016 , 121, 365-373	8.4	54
542	Encapsulation of Perovskite Nanocrystals into Macroscale Polymer Matrices: Enhanced Stability and Polarization. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 35523-35533	9.5	288
541	Enhancing radiation tolerance by controlling defect mobility and migration pathways in multicomponent single-phase alloys. <i>Nature Communications</i> , 2016 , 7, 13564	17.4	336
540	Universal structural parameter to quantitatively predict metallic glass properties. <i>Nature Communications</i> , 2016 , 7, 13733	17.4	84
539	High temperature x-ray micro-tomography 2016 ,		3
538	Bioinspired Hydroxyapatite/Poly(methyl methacrylate) Composite with a Nacre-Mimetic Architecture by a Bidirectional Freezing Method. <i>Advanced Materials</i> , 2016 , 28, 50-6	24	245
537	Parallel mechanisms suppress cochlear bone remodeling to protect hearing. <i>Bone</i> , 2016 , 89, 7-15	4.7	24
536	A generalized Read-Shockley model and large scale simulations for the energy and structure of graphene grain boundaries. <i>RSC Advances</i> , 2016 , 6, 44489-44497	3.7	7
535	IDEAL: Images Across Domains, Experiments, Algorithms and Learning. <i>Jom</i> , 2016 , 68, 2963-2972	2.1	14
534	A Novel Approach to Developing Biomimetic ("Nacre-Like") Metal-Compliant-Phase (Nickel-Alumina) Ceramics through Coextrusion. <i>Advanced Materials</i> , 2016 , 28, 10061-10067	24	53
533	Enhanced protective role in materials with gradient structural orientations: Lessons from Nature. <i>Acta Biomaterialia</i> , 2016 , 44, 31-40	10.8	56
532	Giant panda's tooth enamel: Structure, mechanical behavior and toughening mechanisms under indentation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 64, 125-38	4.1	26
531	Single versus successive pop-in modes in nanoindentation tests of single crystals. <i>Journal of Materials Research</i> , 2016 , 31, 2065-2075	2.5	10
530	Enhanced damage resistance and novel defect structure of CrFeCoNi under in situ electron irradiation. <i>Scripta Materialia</i> , 2016 , 125, 5-9	5.6	42

529	Developing strength and toughness in bio-inspired silicon carbide hybrid materials containing a compliant phase. <i>Acta Materialia</i> , 2015 , 98, 141-151	8.4	87
528	Prevention of glucocorticoid induced bone changes with beta-ecdysone. <i>Bone</i> , 2015 , 74, 48-57	4.7	26
527	On the tear resistance of skin. <i>Nature Communications</i> , 2015 , 6, 6649	17.4	206
526	Ecdysone Augments Peak Bone Mass in Mice of Both Sexes. <i>Clinical Orthopaedics and Related Research</i> , 2015 , 473, 2495-504	2.2	10
525	Alendronate treatment alters bone tissues at multiple structural levels in healthy canine cortical bone. <i>Bone</i> , 2015 , 81, 352-363	4.7	45
524	Processing, Microstructure and Mechanical Properties of the CrMnFeCoNi High-Entropy Alloy. <i>Jom</i> , 2015 , 67, 2262-2270	2.1	135
523	Point defect evolution in Ni, NiFe and NiCr alloys from atomistic simulations and irradiation experiments. <i>Acta Materialia</i> , 2015 , 99, 69-76	8.4	93
522	The effects of annealing on the microstructure and mechanical properties of Fe ₂₈ Ni ₁₈ Mn ₃₃ Al ₂₁ . <i>Journal of Materials Science</i> , 2015 , 50, 7821-7834	4.3	4
521	The fracture mechanics of human bone: influence of disease and treatment. <i>BoneKey Reports</i> , 2015 , 4, 743		85
520	Influence of chemical disorder on energy dissipation and defect evolution in concentrated solid solution alloys. <i>Nature Communications</i> , 2015 , 6, 8736	17.4	330
519	Strain-dependent dynamic mechanical properties of Kevlar to failure: Structural correlations and comparisons to other polymers. <i>Materials Today Communications</i> , 2015 , 2, e33-e37	2.5	23
518	Bioinspired structural materials. <i>Nature Materials</i> , 2015 , 14, 23-36	27	2402
517	Bone: Bone as a Structural Material (Adv. Healthcare Mater. 9/2015). <i>Advanced Healthcare Materials</i> , 2015 , 4, 1286-1286	10.1	4
516	Modifications to nano- and microstructural quality and the effects on mechanical integrity in Paget's disease of bone. <i>Journal of Bone and Mineral Research</i> , 2015 , 30, 264-73	6.3	40
515	On the correlation between microscopic structural heterogeneity and embrittlement behavior in metallic glasses. <i>Scientific Reports</i> , 2015 , 5, 14786	4.9	60
514	Second-Nearest-Neighbor Correlations from Connection of Atomic Packing Motifs in Metallic Glasses and Liquids. <i>Scientific Reports</i> , 2015 , 5, 17429	4.9	47
513	Bone as a Structural Material. <i>Advanced Healthcare Materials</i> , 2015 , 4, 1287-304	10.1	100
512	Influence of three-dimensional nanoparticle branching on the Young's modulus of nanocomposites: Effect of interface orientation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 6533-8	11.5	29

511	Nanoscale origins of the damage tolerance of the high-entropy alloy CrMnFeCoNi. <i>Nature Communications</i> , 2015 , 6, 10143	17.4	451
510	Bioinspired large-scale aligned porous materials assembled with dual temperature gradients. <i>Science Advances</i> , 2015 , 1, e1500849	14.3	230
509	Multi-level characterization of human femoral cortices and their underlying osteocyte network reveal trends in quality of young, aged, osteoporotic and antiresorptive-treated bone. <i>Biomaterials</i> , 2015 , 45, 46-55	15.6	64
508	High-Temperature Creep and Oxidation Behavior of Mo-Si-B Alloys with High Ti Contents. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 1102-1111 ²⁻³	12.3	50
507	Size-dependent fracture toughness of bulk metallic glasses. <i>Acta Materialia</i> , 2014 , 70, 198-207	8.4	79
506	Fracture resistance of human cortical bone across multiple length-scales at physiological strain rates. <i>Biomaterials</i> , 2014 , 35, 5472-81	15.6	100
505	Natural materials: Armoured oyster shells. <i>Nature Materials</i> , 2014 , 13, 435-7	27	25
504	Protective role of Arapaima gigas fish scales: structure and mechanical behavior. <i>Acta Biomaterialia</i> , 2014 , 10, 3599-614	10.8	115
503	Scaling strength distributions in quasi-brittle materials from micro- to macro-scales: A computational approach to modeling Nature-inspired structural ceramics. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 68, 93-106	5	20
502	Unidirectional freezing of ceramic suspensions: in situ X-ray investigation of the effects of additives. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 159-66	9.5	43
501	A fracture-resistant high-entropy alloy for cryogenic applications. <i>Science</i> , 2014 , 345, 1153-8	33.3	2700
500	Effect of sequential treatments with alendronate, parathyroid hormone (1-34) and raloxifene on cortical bone mass and strength in ovariectomized rats. <i>Bone</i> , 2014 , 67, 257-68	4.7	21
499	A methodology for the investigation of toughness and crack propagation in mouse bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014 , 39, 38-47	4.1	20
498	Effects of sequential osteoporosis treatments on trabecular bone in adult rats with low bone mass. <i>Osteoporosis International</i> , 2014 , 25, 1735-50	5.3	19
497	Tensile testing of materials at high temperatures above 1700 °C with in situ synchrotron X-ray micro-tomography. <i>Review of Scientific Instruments</i> , 2014 , 85, 083702	1.7	41
496	How tough is brittle bone? Investigating osteogenesis imperfecta in mouse bone. <i>Journal of Bone and Mineral Research</i> , 2014 , 29, 1392-1401	6.3	100
495	Stochastic Virtual Tests for High-Temperature Ceramic Matrix Composites. <i>Annual Review of Materials Research</i> , 2014 , 44, 479-529	12.8	55
494	In pursuit of damage tolerance in engineering and biological materials. <i>MRS Bulletin</i> , 2014 , 39, 880-890	3.2	12

493	Determination of interfacial mechanical properties of ceramic composites by the compression of micro-pillar test specimens. <i>Journal of Materials Science</i> , 2013 , 48, 5219-5224	4.3	12
492	On the development of ice-templated silicon carbide scaffolds for nature-inspired structural materials. <i>Acta Materialia</i> , 2013 , 61, 6948-6957	8.4	73
491	Structure and fracture resistance of alligator gar (<i>Atractosteus spatula</i>) armored fish scales. <i>Acta Biomaterialia</i> , 2013 , 9, 5876-89	10.8	86
490	Enhanced fatigue endurance of metallic glasses through a staircase-like fracture mechanism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 18419-24	11.5	36
489	Reversing bone loss by directing mesenchymal stem cells to bone. <i>Stem Cells</i> , 2013 , 31, 2003-14	5.8	68
488	Mechanical adaptability of the Bouligand-type structure in natural dermal armour. <i>Nature Communications</i> , 2013 , 4, 2634	17.4	202
487	Real-time quantitative imaging of failure events in materials under load at temperatures above 1,600 °C. <i>Nature Materials</i> , 2013 , 12, 40-6	27	185
486	Proposed pathogenesis for atypical femoral fractures: lessons from materials research. <i>Bone</i> , 2013 , 55, 495-500	4.7	111
485	Tetrapod nanocrystals as fluorescent stress probes of electrospun nanocomposites. <i>Nano Letters</i> , 2013 , 13, 3915-22	11.5	54
484	Prolonged alendronate treatment prevents the decline in serum TGF- β levels and reduces cortical bone strength in long-term estrogen deficiency rat model. <i>Bone</i> , 2013 , 52, 424-32	4.7	13
483	A Highly Fatigue-Resistant Zr-Based Bulk Metallic Glass. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 5688-5693	2.3	28
482	Natural flexible dermal armor. <i>Advanced Materials</i> , 2013 , 25, 31-48	24	241
481	Nanocomposites of Titanium Dioxide and Polystyrene-Poly(ethylene oxide) Block Copolymer as Solid-State Electrolytes for Lithium Metal Batteries. <i>Journal of the Electrochemical Society</i> , 2013 , 160, A1611-A1617	3.9	89
480	Effects of machine stiffness on the loading-displacement curve during spherical nano-indentation. <i>Journal of Materials Research</i> , 2013 , 28, 1903-1911	2.5	20
479	Vitamin D deficiency induces early signs of aging in human bone, increasing the risk of fracture. <i>Science Translational Medicine</i> , 2013 , 5, 193ra88	17.5	114
478	Characterizing Weave Geometry in Textile Ceramic Composites Using Digital Image Correlation. <i>Journal of the American Ceramic Society</i> , 2013 , 96, 2362-2365	3.8	19
477	On the Development of Life Prediction Methodologies for the Failure of Human Teeth 2013 , 136-145		1
476	Elucidating the Nanoscale Structure of Dinosaur Bone. <i>Microscopy Today</i> , 2013 , 21, 34-39	0.4	4

475	Determining Worst-Case Fatigue Thresholds for Grain-Bridging Ceramics 2013 , 60-68		
474	Experimental Analysis of the Elastic-Plastic Transition During Nanoindentation of Single Crystal Alpha-Silicon Nitride. <i>Journal of the American Ceramic Society</i> , 2012 , 95, 2113-2115	3.8	15
473	Sidewall Adhesion and Sliding Contact Behavior of Polycrystalline Silicon Microdevices Operated in High Vacuum. <i>Journal of Microelectromechanical Systems</i> , 2012 , 21, 359-369	2.5	12
472	Nanoindentation of pseudoelastic NiTi containing Ni ₄ Ti ₃ precipitates. <i>International Journal of Materials Research</i> , 2012 , 103, 1434-1439	0.5	4
471	. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2012 , 19, 321-330	2.3	21
470	Effects of hydrogen on fatigue-crack propagation in steels 2012 , 379-417		4
469	Directing mesenchymal stem cells to bone to augment bone formation and increase bone mass. <i>Nature Medicine</i> , 2012 , 18, 456-62	50.5	205
468	Micromechanical models to guide the development of synthetic Brick and mortar Composites. <i>Journal of the Mechanics and Physics of Solids</i> , 2012 , 60, 1545-1560	5	141
467	On the effect of deep-rolling and laser-peening on the stress-controlled low- and high-cycle fatigue behavior of Ti ₆ Al ₄ V at elevated temperatures up to 550°C. <i>International Journal of Fatigue</i> , 2012 , 44, 292-302	5	178
466	On the fracture toughness of fine-grained Mo-3Si-1B (wt.%) alloys at ambient to elevated (1300 °C) temperatures. <i>Intermetallics</i> , 2012 , 20, 141-154	3.5	34
465	Mixed-mode toughness of human cortical bone containing a longitudinal crack in far-field compression. <i>Bone</i> , 2012 , 50, 331-6	4.7	17
464	Mo-Si-B alloys for ultrahigh-temperature structural applications. <i>Advanced Materials</i> , 2012 , 24, 3445-80	2.4	164
463	The Multiscale Origins of Fracture Resistance in Human Bone and Its Biological Degradation. <i>Jom</i> , 2012 , 64, 486-493	2.1	37
462	Characterization and mechanical testing of alumina-based nanocomposites reinforced with niobium and/or carbon nanotubes fabricated by spark plasma sintering. <i>Acta Materialia</i> , 2012 , 60, 622-632	8.4	52
461	Hydrogen-induced intergranular failure in nickel revisited. <i>Acta Materialia</i> , 2012 , 60, 2739-2745	8.4	209
460	Characterizing Three-Dimensional Textile Ceramic Composites Using Synchrotron X-Ray Micro-Computed-Tomography. <i>Journal of the American Ceramic Society</i> , 2012 , 95, 392-402	3.8	107
459	Mechanical fatigue and fracture of Nitinol. <i>International Materials Reviews</i> , 2012 , 57, 1-37	16.1	240
458	Changes to the cell, tissue and architecture levels in cranial suture synostosis reveal a problem of timing in bone development. <i>European Cells and Materials</i> , 2012 , 24, 441-58	4.3	15

457	The conflicts between strength and toughness. <i>Nature Materials</i> , 2011 , 10, 817-22	27	1807
456	A damage-tolerant glass. <i>Nature Materials</i> , 2011 , 10, 123-8	27	470
455	Impact of thermomechanical texture on the superelastic response of Nitinol implants. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011 , 4, 1431-9	4.1	21
454	Effect of aging on the transverse toughness of human cortical bone: evaluation by R-curves. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011 , 4, 1504-13	4.1	58
453	Characterization of the effects of x-ray irradiation on the hierarchical structure and mechanical properties of human cortical bone. <i>Biomaterials</i> , 2011 , 32, 8892-904	15.6	188
452	Changes in cortical bone response to high-fat diet from adolescence to adulthood in mice. <i>Osteoporosis International</i> , 2011 , 22, 2283-93	5.3	68
451	Differential maintenance of cortical and cancellous bone strength following discontinuation of bone-active agents. <i>Journal of Bone and Mineral Research</i> , 2011 , 26, 569-81	6.3	14
450	Fatigue-induced grain coarsening in nanocrystalline platinum films. <i>Acta Materialia</i> , 2011 , 59, 1141-1149	8.4	50
449	An equivalent strain/Coffin-Manson approach to multiaxial fatigue and life prediction in superelastic Nitinol medical devices. <i>Biomaterials</i> , 2011 , 32, 4987-93	15.6	81
448	Age-related changes in the plasticity and toughness of human cortical bone at multiple length scales. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 14416-21	11.5	265
447	Decrease in the osteocyte lacunar density accompanied by hypermineralized lacunar occlusion reveals failure and delay of remodeling in aged human bone. <i>Aging Cell</i> , 2010 , 9, 1065-75	9.9	185
446	Tissue-specific calibration of extracellular matrix material properties by transforming growth factor- β and Runx2 in bone is required for hearing. <i>EMBO Reports</i> , 2010 , 11, 765-71	6.5	33
445	How does human bone resist fracture?. <i>Annals of the New York Academy of Sciences</i> , 2010 , 1192, 72-80	6.5	36
444	A novel biomimetic approach to the design of high-performance ceramic-metal composites. <i>Journal of the Royal Society Interface</i> , 2010 , 7, 741-53	4.1	213
443	3D x-ray microprobe investigation of local dislocation densities and elastic strain gradients in a NiAl-Mo composite and exposed Mo micropillars as a function of prestrain. <i>Journal of Materials Research</i> , 2010 , 25, 199-206	2.5	18
442	On the Mechanistic Origins of Toughness in Bone. <i>Annual Review of Materials Research</i> , 2010 , 40, 25-53	12.8	451
441	Reduced size-independent mechanical properties of cortical bone in high-fat diet-induced obesity. <i>Bone</i> , 2010 , 46, 217-25	4.7	72
440	Higher doses of bisphosphonates further improve bone mass, architecture, and strength but not the tissue material properties in aged rats. <i>Bone</i> , 2010 , 46, 1267-74	4.7	35

439	Osteopontin deficiency increases bone fragility but preserves bone mass. <i>Bone</i> , 2010 , 46, 1564-73	4.7	147
438	On the effect of X-ray irradiation on the deformation and fracture behavior of human cortical bone. <i>Bone</i> , 2010 , 46, 1475-85	4.7	142
437	Scaling of strength and ductility in bioinspired brick and mortar composites. <i>Applied Physics Letters</i> , 2010 , 97, 193701	3.4	26
436	The significance of crack-resistance curves to the mixed-mode fracture toughness of human cortical bone. <i>Biomaterials</i> , 2010 , 31, 5297-305	15.6	79
435	Wear mechanisms and friction parameters for sliding wear of micron-scale polysilicon sidewalls. <i>Sensors and Actuators A: Physical</i> , 2010 , 163, 373-382	3.9	12
434	Microindentation for in vivo measurement of bone tissue mechanical properties in humans. <i>Journal of Bone and Mineral Research</i> , 2010 , 25, 1877-85	6.3	209
433	The effects of cubic stiffness on fatigue characterization resonator performance. <i>Sensors and Actuators A: Physical</i> , 2010 , 157, 228-234	3.9	10
432	Mechanical properties of Si ₃ N ₄ /Al ₂ O ₃ FGM joints with 15 layers for high-temperature applications. <i>Journal of the European Ceramic Society</i> , 2010 , 30, 1743-1749	6	11
431	A statistical, physical-based, micro-mechanical model of hydrogen-induced intergranular fracture in steel. <i>Journal of the Mechanics and Physics of Solids</i> , 2010 , 58, 206-226	5	270
430	Atomic-scale imaging and the effect of yttrium on the fracture toughness of silicon carbide ceramics. <i>Acta Materialia</i> , 2010 , 58, 2999-3005	8.4	22
429	Mechanistic aspects of the fracture toughness of elk antler bone. <i>Acta Biomaterialia</i> , 2010 , 6, 1505-14	10.8	126
428	Directional recrystallization and microstructures of an Fe-6.5wt%Si alloy. <i>Journal of Materials Research</i> , 2009 , 24, 2654-2660	2.5	14
427	Fracture toughness and crack-resistance curve behavior in metallic glass-matrix composites. <i>Applied Physics Letters</i> , 2009 , 94, 241910	3.4	55
426	Weakening of dentin from cracks resulting from laser irradiation. <i>Dental Materials</i> , 2009 , 25, 520-5	5.7	30
425	Mixed-mode fracture of human cortical bone. <i>Biomaterials</i> , 2009 , 30, 5877-84	15.6	103
424	Indentation techniques for evaluating the fracture toughness of biomaterials and hard tissues. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2009 , 2, 384-95	4.1	159
423	Designing highly toughened hybrid composites through nature-inspired hierarchical complexity. <i>Acta Materialia</i> , 2009 , 57, 2919-2932	8.4	235
422	Grain-boundary engineering markedly reduces susceptibility to intergranular hydrogen embrittlement in metallic materials. <i>Acta Materialia</i> , 2009 , 57, 4148-4157	8.4	284

421	Prolonged treatments with antiresorptive agents and PTH have different effects on bone strength and the degree of mineralization in old estrogen-deficient osteoporotic rats. <i>Journal of Bone and Mineral Research</i> , 2009 , 24, 209-20	6.3	31
420	Solution to the problem of the poor cyclic fatigue resistance of bulk metallic glasses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 4986-91	11.5	74
419	Plasticity and toughness in bone. <i>Physics Today</i> , 2009 , 62, 41-47	0.9	238
418	Pharmacologic inhibition of the TGF-beta type I receptor kinase has anabolic and anti-catabolic effects on bone. <i>PLoS ONE</i> , 2009 , 4, e5275	3.7	137
417	The true toughness of human cortical bone measured with realistically short cracks. <i>Nature Materials</i> , 2008 , 7, 672-7	27	380
416	Fatigue of dentin-composite interfaces with four-point bend. <i>Dental Materials</i> , 2008 , 24, 799-803	5.7	34
415	Further considerations on the high-cycle fatigue of micron-scale polycrystalline silicon. <i>Scripta Materialia</i> , 2008 , 59, 931-935	5.6	37
414	Tough, bio-inspired hybrid materials. <i>Science</i> , 2008 , 322, 1516-20	33.3	1302
413	Measurement of the toughness of bone: a tutorial with special reference to small animal studies. <i>Bone</i> , 2008 , 43, 798-812	4.7	151
412	Micron-Scale Friction and Sliding Wear of Polycrystalline Silicon Thin Structural Films in Ambient Air. <i>Journal of Microelectromechanical Systems</i> , 2008 , 17, 1144-1154	2.5	40
411	Atomic-resolution imaging of the nanoscale origin of toughness in rare-earth doped SiC. <i>Nano Letters</i> , 2008 , 8, 2935-9	11.5	24
410	The quest for stronger, tougher materials. <i>Science</i> , 2008 , 320, 448; author reply 448	33.3	23
409	Fatigue of mineralized tissues: cortical bone and dentin. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2008 , 1, 3-17	4.1	70
408	Comments on "Measurement of the microstructural fracture toughness of cortical bone using indentation fracture". <i>Journal of Biomechanics</i> , 2008 , 41, 1379-80	2.9	18
407	Aging and fracture of human cortical bone and tooth dentin. <i>Jom</i> , 2008 , 60, 33-38	2.1	85
406	A fracture-mechanics-based approach to fracture control in biomedical devices manufactured from superelastic Nitinol tube. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2008 , 84, 26-33	3.5	51
405	Glucocorticoid-induced bone loss in mice can be reversed by the actions of parathyroid hormone and risedronate on different pathways for bone formation and mineralization. <i>Arthritis and Rheumatism</i> , 2008 , 58, 3485-97		99
404	Effect of post-release sidewall morphology on the fracture and fatigue properties of polycrystalline silicon structural films. <i>Sensors and Actuators A: Physical</i> , 2008 , 147, 553-560	3.9	26

403	On the toughening of brittle materials by grain bridging: Promoting intergranular fracture through grain angle, strength, and toughness. <i>Journal of the Mechanics and Physics of Solids</i> , 2008 , 56, 2381-2400 ⁵		45
402	Adhesion between biodegradable polymers and hydroxyapatite: Relevance to synthetic bone-like materials and tissue engineering scaffolds. <i>Acta Biomaterialia</i> , 2008 , 4, 1288-96	10.8	102
401	The effect of aging on crack-growth resistance and toughening mechanisms in human dentin. <i>Biomaterials</i> , 2008 , 29, 1318-28	15.6	103
400	In situ bend testing of niobium-reinforced alumina nanocomposites with and without single-walled carbon nanotubes. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 493, 256-260	5.3	8
399	Effect of microstructure on the fatigue of hot-rolled and cold-drawn NiTi shape memory alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 486, 389-403	5.3	107
398	The Utility of R-Curves for Understanding Fracture Toughness-Strength Relations in Bridging Ceramics. <i>Journal of the American Ceramic Society</i> , 2008 , 91, 1986-1994	3.8	70
397	Atomic-scale observation of the grain-boundary structure of Yb-doped and heat-treated silicon nitride ceramics. <i>Applied Physics Letters</i> , 2007 , 91, 141906	3.4	3
396	The aminobisphosphonate risedronate preserves localized mineral and material properties of bone in the presence of glucocorticoids. <i>Arthritis and Rheumatism</i> , 2007 , 56, 3726-37		31
395	Understanding the Deformation and Fracture of Nitinol Endovascular Stents Using In Situ Synchrotron X-Ray Microdiffraction. <i>Advanced Materials</i> , 2007 , 19, 1183-1186	24	32
394	Fatigue-crack growth properties of thin-walled superelastic austenitic Nitinol tube for endovascular stents. <i>Journal of Biomedical Materials Research - Part A</i> , 2007 , 81, 685-91	5.4	24
393	An electron microscopy study of wear in polysilicon microelectromechanical systems in ambient air. <i>Thin Solid Films</i> , 2007 , 515, 3259-3266	2.2	34
392	High-cycle fatigue of nickel-base superalloy Ren [®] 104 (ME3): Interaction of microstructurally small cracks with grain boundaries of known character. <i>Acta Materialia</i> , 2007 , 55, 3155-3167	8.4	80
391	Evolution of crack-tip transformation zones in superelastic Nitinol subjected to in situ fatigue: A fracture mechanics and synchrotron X-ray microdiffraction analysis. <i>Acta Materialia</i> , 2007 , 55, 6198-6207	8.4	136
390	A micromechanical basis for partitioning the evolution of grain bridging in brittle materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2007 , 55, 719-743	5	36
389	A preservation study of carbon nanotubes in alumina-based nanocomposites via Raman spectroscopy and nuclear magnetic resonance. <i>Applied Physics A: Materials Science and Processing</i> , 2007 , 89, 651-654	2.6	31
388	In vitro fatigue-crack growth and fracture toughness behavior of thin-walled superelastic Nitinol tube for endovascular stents: A basis for defining the effect of crack-like defects. <i>Biomaterials</i> , 2007 , 28, 700-9	15.6	123
387	Stress-corrosion crack growth of Si-Na-K-Mg-Ca-P-O bioactive glasses in simulated human physiological environment. <i>Biomaterials</i> , 2007 , 28, 4901-11	15.6	22
386	Elastic constants and tensile properties of Al ₂ O ₃ C by density functional calculations. <i>Physical Review B</i> , 2007 , 75,	3.3	13

385	Very high-cycle fatigue failure in micron-scale polycrystalline silicon films: Effects of environment and surface oxide thickness. <i>Journal of Applied Physics</i> , 2007 , 101, 013515	2.5	52
384	Analysis of the material properties of early chondrogenic differentiated adipose-derived stromal cells (ASC) using an in vitro three-dimensional micromass culture system. <i>Biochemical and Biophysical Research Communications</i> , 2007 , 359, 311-6	3.4	46
383	The degree of bone mineralization is maintained with single intravenous bisphosphonates in aged estrogen-deficient rats and is a strong predictor of bone strength. <i>Bone</i> , 2007 , 41, 804-12	4.7	44
382	On the physics of moisture-induced cracking in metal-glass (copper-silica) interfaces. <i>Journal of Applied Physics</i> , 2007 , 102, 053516	2.5	10
381	Fracture length scales in human cortical bone: the necessity of nonlinear fracture models. <i>Biomaterials</i> , 2006 , 27, 2095-113	15.6	108
380	Fatigue and life prediction for cobalt-chromium stents: A fracture mechanics analysis. <i>Biomaterials</i> , 2006 , 27, 1988-2000	15.6	171
379	Fabrication and mechanical properties of PLA/HA composites: A study of in vitro degradation. <i>Materials Science and Engineering C</i> , 2006 , 26, 1289-1295	8.3	146
378	Kitagawa-Takahashi diagrams define the limiting conditions for cyclic fatigue failure in human dentin. <i>Journal of Biomedical Materials Research - Part A</i> , 2006 , 79, 747-51	5.4	21
377	Role of alcohol in the fracture resistance of teeth. <i>Journal of Dental Research</i> , 2006 , 85, 1022-6	8.1	38
376	Fracture, aging, and disease in bone. <i>Journal of Materials Research</i> , 2006 , 21, 1878-1892	2.5	52
375	Synthesis, Microstructure, and Mechanical Properties of FeCo-VC Composites. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 980, 14		
374	Atomic-resolution observations of semicrystalline intergranular thin films in silicon nitride. <i>Applied Physics Letters</i> , 2006 , 88, 041919	3.4	19
373	Canine cranial reconstruction using autologous bone marrow stromal cells. <i>American Journal of Pathology</i> , 2006 , 168, 542-50	5.8	71
372	Re-evaluating the toughness of human cortical bone. <i>Bone</i> , 2006 , 38, 878-87	4.7	71
371	Quantitative Analysis of Fracture Surface Morphologies in a Zr-Ti-Ni-Cu-Be Bulk Metallic Glass 2006 , 40-45		
370	Cortical Bone Fracture 2006 ,		7
369	Direct Mechanical Measurement of the Tensile Strength and Elastic Modulus of Multiwalled Carbon Nanotubes. <i>Microscopy and Microanalysis</i> , 2006 , 12, 934-935	0.5	10
368	Isothermal Fatigue Behavior and Residual Stress States of Mechanically Surface Treated Ti-6Al-4V: Laser Shock Peening vs. Deep Rolling 2006 , 447-453		1

367	High Temperature Fatigue of Mechanically Surface Treated Materials 2006 , 483-489		1
366	Fracture and Ageing in Bone: Toughness and Structural Characterization. <i>Strain</i> , 2006 , 42, 225-232	1.7	30
365	Stress-corrosion fatigue crack growth in a Zr-based bulk amorphous metal. <i>Acta Materialia</i> , 2006 , 54, 1785-1794	8.4	42
364	Role of microstructure in the aging-related deterioration of the toughness of human cortical bone. <i>Materials Science and Engineering C</i> , 2006 , 26, 1251-1260	8.3	110
363	Propagation of surface fatigue cracks in human cortical bone. <i>Journal of Biomechanics</i> , 2006 , 39, 968-72	2.9	26
362	On the increasing fragility of human teeth with age: a deep-UV resonance Raman study. <i>Journal of Bone and Mineral Research</i> , 2006 , 21, 1879-87	6.3	38
361	Interfacial structure in silicon nitride sintered with lanthanide oxide. <i>Journal of Materials Science</i> , 2006 , 41, 4405-4412	4.3	22
360	Effect of product form and heat treatment on the crystallographic texture of austenitic Nitinol. <i>Journal of Materials Science</i> , 2006 , 41, 621-630	4.3	28
359	Fracture, Aging and Disease in Bone and Teeth 2006 , 23-24		0
358	Wear and Fatigue in Silicon Structural Films for MEMS Applications 2006 , 671-672		
357	Nanocrystal-powered nanomotor. <i>Nano Letters</i> , 2005 , 5, 1730-3	11.5	48
356	Fracture in human cortical bone: local fracture criteria and toughening mechanisms. <i>Journal of Biomechanics</i> , 2005 , 38, 1517-25	2.9	202
355	Fatigue threshold R-curves for predicting reliability of ceramics under cyclic loading. <i>Acta Materialia</i> , 2005 , 53, 2595-2605	8.4	46
354	Mechanistic aspects of in vitro fatigue-crack growth in dentin. <i>Biomaterials</i> , 2005 , 26, 1195-204	15.6	59
353	Aspects of in vitro fatigue in human cortical bone: time and cycle dependent crack growth. <i>Biomaterials</i> , 2005 , 26, 2183-95	15.6	50
352	A fracture mechanics and mechanistic approach to the failure of cortical bone. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2005 , 28, 345-371	3	104
351	The dentin-enamel junction and the fracture of human teeth. <i>Nature Materials</i> , 2005 , 4, 229-32	27	321
350	Crack-Growth Resistance-Curve Behavior in Silicon Carbide: Small versus Long Cracks. <i>Journal of the American Ceramic Society</i> , 2005 , 80, 2253-2261	3.8	52

349	On the Effect of Local Grain-Boundary Chemistry on the Macroscopic Mechanical Properties of a High-Purity Y ₂ O ₃ -Al ₂ O ₃ -Containing Silicon Nitride Ceramic: Role of Oxygen. <i>Journal of the American Ceramic Society</i> , 2005 , 88, 1900-1908	3.8	12
348	Effects of Moisture on Grain-Boundary Strength, Fracture, and Fatigue Properties of Alumina. <i>Journal of the American Ceramic Society</i> , 2005 , 88, 2236-2245	3.8	34
347	Crystallographic texture for tube and plate of the superelastic/shape-memory alloy Nitinol used for endovascular stents. <i>Journal of Biomedical Materials Research - Part A</i> , 2005 , 72, 190-9	5.4	36
346	Simple and accurate fracture toughness testing methods for pyrolytic carbon/graphite composites used in heart-valve prostheses. <i>Journal of Biomedical Materials Research - Part A</i> , 2005 , 74, 461-4	5.4	20
345	Ultrastructural examination of dentin using focused ion-beam cross-sectioning and transmission electron microscopy. <i>Micron</i> , 2005 , 36, 672-80	2.3	85
344	Effects of polar solvents on the fracture resistance of dentin: role of water hydration. <i>Acta Biomaterialia</i> , 2005 , 1, 31-43	10.8	78
343	Mechanistic aspects of fracture and R-curve behavior in human cortical bone. <i>Biomaterials</i> , 2005 , 26, 217-31	15.6	267
342	Age-related transparent root dentin: mineral concentration, crystallite size, and mechanical properties. <i>Biomaterials</i> , 2005 , 26, 3363-76	15.6	172
341	A transmission electron microscopy study of mineralization in age-induced transparent dentin. <i>Biomaterials</i> , 2005 , 26, 7650-60	15.6	80
340	High-cycle fatigue of nickel-based superalloy ME3 at ambient and elevated temperatures: Role of grain-boundary engineering. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2005 , 36, 3325-3333	2.3	103
339	Ambient- to elevated-temperature fracture and fatigue properties of Mo-Si-B alloys: Role of microstructure. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2005 , 36, 2393-2402	2.3	42
338	Optimization of Mo-Si-B intermetallic alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2005 , 36, 525-531	2.3	151
337	Incomplete self-similarity and fatigue-crack growth. <i>International Journal of Fracture</i> , 2005 , 132, 197-203	2.3	49
336	Dentin erosion simulation by cantilever beam fatigue and pH change. <i>Journal of Dental Research</i> , 2005 , 84, 371-5	8.1	29
335	Deep-ultraviolet Raman spectroscopy study of the effect of aging on human cortical bone. <i>Journal of Biomedical Optics</i> , 2005 , 10, 034012	3.5	94
334	Ab initio structural energetics of Bi ₃ N ₄ surfaces. <i>Physical Review B</i> , 2005 , 72,	3.3	29
333	Fatigue failure in thin-film polycrystalline silicon is due to subcritical cracking within the oxide layer. <i>Applied Physics Letters</i> , 2005 , 86, 041914	3.4	43
332	Effect of Age-Induced Transparency on the Mechanical Properties of Human Dentin. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 874, 1		

331	TGF-beta regulates the mechanical properties and composition of bone matrix. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 18813-8	11.5	168
330	On the improvement of the ductility of molybdenum by spinel (MgAl ₂ O ₄) particles. <i>International Journal of Materials Research</i> , 2005 , 96, 632-637		7
329	On the Role of Grain-Boundary Films in Optimizing the Mechanical Properties of Silicon Carbide Ceramics. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 818, 377		2
328	Utilizing On-Chip Testing and Electron Microscopy to Study Fatigue and Wear in Polysilicon Structural Films. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 821, 1		1
327	Role of Microstructure in Promoting Fracture and Fatigue Resistance in Mo-Si-B Alloys. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 842, 132		
326	On the Effect of Local Grain-Boundary Chemistry on the Macroscopic Mechanical Properties of a High Purity Y ₂ O ₃ -Al ₂ O ₃ -Containing Silicon Nitride Ceramic. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 839, 48		
325	Mechanistic Aspects of Fracture of Human Cortical Bone. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 823, W8.2.1		2
324	On the in vitro fatigue behavior of human dentin: effect of mean stress. <i>Journal of Dental Research</i> , 2004 , 83, 211-5	8.1	61
323	Effects of Aging on the Toughness of Human Cortical Bone: A Study from Nano to Macro Size-Scales. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 844, 1		
322	High-Resolution Interface Atomic Structure Analysis in Silicon Nitride Ceramics. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 839, 24		1
321	Effects of Grain-Boundary Structure on the Strength, Toughness, and Cyclic-Fatigue Properties of a Monolithic Silicon Carbide. <i>Journal of the American Ceramic Society</i> , 2004 , 83, 2079-2081	3.8	35
320	Crack-Size Effects on Cyclic and Monotonic Crack Growth in Polycrystalline Alumina: Quantification of the Role of Grain Bridging. <i>Journal of the American Ceramic Society</i> , 2004 , 87, 93-103	3.8	31
319	Carbon nanotubes as nanoscale mass conveyors. <i>Nature</i> , 2004 , 428, 924-7	50.4	256
318	Fracture and fatigue resistance of MoSiB alloys for ultrahigh-temperature structural applications. <i>Scripta Materialia</i> , 2004 , 50, 459-464	5.6	82
317	Characteristic dimensions and the micro-mechanisms of fracture and fatigue in 'nano' and 'bio' materials. <i>International Journal of Fracture</i> , 2004 , 128, 1-15	2.3	31
316	Fatigue of polycrystalline silicon for microelectromechanical system applications: crack growth and stability under resonant loading conditions. <i>Mechanics of Materials</i> , 2004 , 36, 13-33	3.3	76
315	Effects of plastic constraint on the cyclic and static fatigue behavior of metal/ceramic layered structures. <i>Mechanics of Materials</i> , 2004 , 36, 57-72	3.3	37
314	Constitutive modelling and numerical simulation of multivariant phase transformation in superelastic shape-memory alloys. <i>International Journal for Numerical Methods in Engineering</i> , 2004 , 60, 429-460	2.4	45

313	On the electronic and mechanical instabilities in Ni _{50.9} Ti _{49.1} . <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 378, 130-137	5.3	8
312	Interface structure and atomic bonding characteristics in silicon nitride ceramics. <i>Science</i> , 2004 , 306, 1768-70	33.3	196
311	On the origin of the toughness of mineralized tissue: microcracking or crack bridging?. <i>Bone</i> , 2004 , 34, 790-8	4.7	191
310	Effect of aging on the toughness of human cortical bone: evaluation by R-curves. <i>Bone</i> , 2004 , 35, 1240-6	4.7	187
309	Using the Electron Microscope to Explore Reliability in Microelectromechanical Systems and Nanostructured Materials. <i>Microscopy and Microanalysis</i> , 2004 , 10, 354-355	0.5	
308	Failure by Fracture and Fatigue in "Nano" and "Bio" Materials. <i>JSME International Journal Series A-Solid Mechanics and Material Engineering</i> , 2004 , 47, 238-251		5
307	Fatigue Degradation of Nanometer-Scale Silicon Dioxide Reaction Layers on Silicon Structural Films. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 778, 721		
306	Fatigue of Brittle Materials 2003 , 359-388		2
305	Fatigue of Small-volume Structures: Silicon Films 2003 , 467-487		
304	High-cycle fatigue of micron-scale polycrystalline silicon films: fracture mechanics analyses of the role of the silica/silicon interface. <i>International Journal of Fracture</i> , 2003 , 119/120, 449-474	2.3	38
303	On the fracture and fatigue properties of Mo-Mo ₃ Si-Mo ₅ SiB ₂ refractory intermetallic alloys at ambient to elevated temperatures (25 °C to 1300 °C). <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003 , 34, 225-239	2.3	64
302	An in situ transmission electron microscope study of the thermal stability of near-surface microstructures induced by deep rolling and laser-shock peening. <i>Scripta Materialia</i> , 2003 , 48, 1593-1598 ^{5.6}		81
301	On the fracture of human dentin: is it stress- or strain-controlled?. <i>Journal of Biomedical Materials Research Part B</i> , 2003 , 67, 484-95		65
300	In vitro fracture toughness of human dentin. <i>Journal of Biomedical Materials Research Part B</i> , 2003 , 66, 1-9		68
299	In vitro fatigue behavior of human dentin with implications for life prediction. <i>Journal of Biomedical Materials Research Part B</i> , 2003 , 66, 10-20		82
298	Verhalten laserschockverfestigter und festgewalzter Randschichten der Ti-Legierung Ti-6Al-4V bei schwingender Beanspruchung unter erhöhten Temperaturen. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2003 , 34, 529-541	0.9	6
297	Ambient to high-temperature fracture toughness and cyclic fatigue behavior in Al-containing silicon carbide ceramics. <i>Acta Materialia</i> , 2003 , 51, 6477-6491	8.4	38
296	Probing structural phase transitions of crystalline C ₆₀ via resistivity measurements of metal film overlayers. <i>Solid State Communications</i> , 2003 , 128, 359-363	1.6	7

295	Effect of orientation on the in vitro fracture toughness of dentin: the role of toughening mechanisms. <i>Biomaterials</i> , 2003 , 24, 3955-68	15.6	212
294	Crack blunting, crack bridging and resistance-curve fracture mechanics in dentin: effect of hydration. <i>Biomaterials</i> , 2003 , 24, 5209-21	15.6	166
293	An experimental study of the superelastic effect in a shape-memory Nitinol alloy under biaxial loading. <i>Mechanics of Materials</i> , 2003 , 35, 969-986	3.3	132
292	Mechanical relaxation of localized residual stresses associated with foreign object damage. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003 , 349, 48-58	5.3	47
291	On the influence of mechanical surface treatments—deep rolling and laser shock peening—on the fatigue behavior of Ti-6Al-4V at ambient and elevated temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003 , 355, 216-230	5.3	357
290	Abrasive Wear Behavior of Heat-Treated ABC-Silicon Carbide. <i>Journal of the American Ceramic Society</i> , 2003 , 86, 1370-1378	3.8	18
289	Determining the Toughness of Ceramics from Vickers Indentations Using the Crack-Opening Displacements: An Experimental Study. <i>Journal of the American Ceramic Society</i> , 2003 , 86, 1433-1436	3.8	69
288	Atomic Resolution Transmission Electron Microscopy of the Intergranular Structure of a Y ₂ O ₃ -Containing Silicon Nitride Ceramic. <i>Journal of the American Ceramic Society</i> , 2003 , 86, 1777-1785	3.8	42
287	Mechanistic fracture criteria for the failure of human cortical bone. <i>Nature Materials</i> , 2003 , 2, 164-8	27	571
286	MICROSTRUCTURE AND PROPERTIES OF IN SITU TOUGHENED SILICON CARBIDE 2003 , 145-156		1
285	PL-2(PL2W0466) On the Fatigue and Fracture of "Nano" and "Bio" Materials. <i>The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics</i> , 2003 , 2003, 4	0	
284	PL2W0466 On the fatigue and fracture of "nano" and "bio" materials. <i>The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics</i> , 2003 , 2003.2, _PL2W0466--_PL2W0466-	0	
283	Surface Engineering of Polycrystalline Silicon Microelectromechanical Systems for Fatigue Resistance. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 729, 211		
282	Influence of microstructure on high-cycle fatigue of Ti-6Al-4V: Bimodal vs. lamellar structures. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002 , 33, 899-918	2.3	205
281	Direct mechanical measurement of the tensile strength and elastic modulus of multiwalled carbon nanotubes. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002 , 334, 173-178	5.3	832
280	Effects of microstructure on mixed-mode, high-cycle fatigue crack-growth thresholds in Ti-6Al-4V alloy. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2002 , 25, 587-606	3	15
279	A physically-based abrasive wear model for composite materials. <i>Wear</i> , 2002 , 252, 322-331	3.5	107
278	Mixed-mode, high-cycle fatigue-crack growth thresholds in Ti-6Al-4V: Role of small cracks. <i>International Journal of Fatigue</i> , 2002 , 24, 1047-1062	5	41

277	Fracture and Fatigue Behavior at Ambient and Elevated Temperatures of Alumina Bonded with Copper/Niobium/Copper Interlayers. <i>Journal of the American Ceramic Society</i> , 2002 , 85, 2531-2541	3.8	14
276	Imaging of the crystal structure of silicon nitride at 0.8 nm resolution. Work supported by the Director, Office of Science, Office of Basic Energy Sciences, Materials Sciences Division of the US Department of Energy under Contract No. DE-AC03-76SF00098.1. <i>Acta Materialia</i> , 2002 , 50, 565-574	8.4	28
275	A reaction-layer mechanism for the delayed failure of micron-scale polycrystalline silicon structural films subjected to high-cycle fatigue loading. <i>Acta Materialia</i> , 2002 , 50, 3579-3595	8.4	168
274	On the application of the Kitagawa-Takahashi diagram to foreign-object damage and high-cycle fatigue. <i>Engineering Fracture Mechanics</i> , 2002 , 69, 1425-1446	4.2	72
273	Statistical fracture modeling: crack path and fracture criteria with application to homogeneous and functionally graded materials. <i>Engineering Fracture Mechanics</i> , 2002 , 69, 1521-1555	4.2	37
272	Errata to "High-cycle fatigue of single-crystal silicon thin films". <i>Journal of Microelectromechanical Systems</i> , 2002 , 11, 91-91	2.5	1
271	Effects of Mechanical Surface Treatment on Fatigue Failure in Ti-6Al-4V: Role of Residual Stresses and Foreign-Object Damage. <i>Materials Science Forum</i> , 2002 , 404-407, 457-462	0.4	8
270	Interfacial Effects on the Premature Failure of Polycrystalline Silicon Structural Films. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 741, 351		
269	Effects of the Amorphous Oxide Intergranular Layer Structure and Bonding on the Fracture Toughness of a High Purity Silicon Nitride. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 751, 1		1
268	Optimization of Mo-Si-B Intermetallics. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 753, 1		
267	Mechanism of fatigue in micron-scale films of polycrystalline silicon for microelectromechanical systems. <i>Applied Physics Letters</i> , 2002 , 80, 1532-1534	3.4	85
266	Influence of microstructure on high-cycle fatigue of Ti-6Al-4V: Bimodal vs. lamellar structures 2002 , 33, 899		41
265	Mixed-mode, high-cycle fatigue-crack-growth thresholds in Ti-6Al-4V: Role of bimodal and lamellar microstructures. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2001 , 32, 497-503	2.3	11
264	Fatigue-crack growth behavior in the superelastic and shape-memory alloy nitinol. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2001 , 32, 731-743	2.3	15
263	Fatigue-crack growth behavior in the superelastic and shape-memory alloy nitinol. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2001 , 32, 731-743	2.3	181
262	The residual stress state due to a spherical hard-body impact. <i>Mechanics of Materials</i> , 2001 , 33, 441-454	3.3	104
261	Foreign-object damage and high-cycle fatigue: role of microstructure in Ti-6Al-4V. <i>International Journal of Fatigue</i> , 2001 , 23, 413-421	5	29
260	Foreign-object damage and high-cycle fatigue of Ti-6Al-4V. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001 , 319-321, 597-601	5.3	26

259	High-cycle fatigue and durability of polycrystalline silicon thin films in ambient air. <i>Sensors and Actuators A: Physical</i> , 2001 , 94, 177-188	3.9	136
258	Effect of load ratio and maximum stress intensity on the fatigue threshold in Ti ₆ Al ₄ V. <i>Engineering Fracture Mechanics</i> , 2001 , 68, 129-147	4.2	159
257	Finite crack kinking and T-stresses in functionally graded materials. <i>International Journal of Solids and Structures</i> , 2001 , 38, 5545-5563	3.1	58
256	Estimation of the effects of plasticity and resulting crack closure during small fatigue crack growth. <i>International Journal of Fracture</i> , 2001 , 107, 99-115	2.3	10
255	A comparison of the mechanisms of fatigue-crack propagation behavior in a Zr-based bulk amorphous metal in air and an aqueous chloride solution. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001 , 317, 145-152	5.3	33
254	Cyclic Fatigue-Crack Propagation Behavior in Silicon Carbide: Long- and Small-Crack Behavior. <i>Journal of the American Ceramic Society</i> , 2001 , 84, 551-554	3.8	8
253	Cyclic Fatigue-Crack Growth and Fracture Properties in Ti ₃ SiC ₂ Ceramics at Elevated Temperatures. <i>Journal of the American Ceramic Society</i> , 2001 , 84, 2914-2920	3.8	58
252	Structure of boron nitride nanotubules. <i>Applied Physics Letters</i> , 2001 , 78, 2772-2774	3.4	63
251	High-cycle fatigue of single-crystal silicon thin films. <i>Journal of Microelectromechanical Systems</i> , 2001 , 10, 593-600	2.5	155
250	Ambient to high temperature fracture toughness and fatigue-crack propagation behavior in a Mo ₁₂ Si ₈ .5B (at.%) intermetallic. <i>Intermetallics</i> , 2001 , 9, 319-329	3.5	108
249	Electron Microscopy in Optimizing Microstructure and Mechanical Properties of Hot-Pressed Silicon Carbide. <i>Microscopy and Microanalysis</i> , 2001 , 7, 422-423	0.5	
248	On The Mechanism of Fatigue in Micron-Scale Structural Films of Polycrystalline Silicon. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 687, 1		1
247	On The Mechanism of Fatigue in Micron-Scale Structural Films of Polycrystalline Silicon. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 697, 671		
246	Time Dependent Debonding of Aluminum/Alumina Interfaces under Cyclic and Static Loading. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 654, 4101		
245	High-Cycle Fatigue of Polycrystalline Silicon Thin Films in Laboratory Air. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 657, 581		5
244	Cyclic fatigue-crack propagation in sapphire in air and simulated physiological environments. <i>Journal of Biomedical Materials Research Part B</i> , 2000 , 52, 488-91		20
243	Influence of foreign-object damage on crack initiation and early crack growth during high-cycle fatigue of Ti ₆ Al ₄ V. <i>Engineering Fracture Mechanics</i> , 2000 , 67, 193-207	4.2	92
242	Mixed-mode, high-cycle fatigue-crack growth thresholds in Ti ₆ Al ₄ V. <i>Engineering Fracture Mechanics</i> , 2000 , 67, 209-227	4.2	37

241	Mixed-mode, high-cycle fatigue-crack growth thresholds in Ti ₆ Al ₄ V: II. Quantification of crack-tip shielding. <i>Engineering Fracture Mechanics</i> , 2000 , 67, 229-249	4.2	27
240	Role of the grain-boundary phase on the elevated-temperature strength, toughness, fatigue and creep resistance of silicon carbide sintered with Al, B and C. <i>Acta Materialia</i> , 2000 , 48, 4599-4608	8.4	91
239	High-temperature cyclic fatigue-crack growth behavior in an in situ toughened silicon carbide. <i>Acta Materialia</i> , 2000 , 48, 659-674	8.4	38
238	An approximate method for residual stress calculation in functionally graded materials. <i>Mechanics of Materials</i> , 2000 , 32, 85-97	3.3	46
237	Anomalous cyclic fatigue-crack propagation behavior of small cracks in monolithic, grain-bridging ceramics. <i>Ceramics International</i> , 2000 , 26, 721-725	5.1	10
236	Fatigue-crack growth and fracture properties of coarse and fine-grained Ti ₃ SiC ₂ . <i>Scripta Materialia</i> , 2000 , 42, 761-767	5.6	146
235	Mechanics and mechanisms of fatigue damage and crack growth in advanced materials. <i>International Journal of Solids and Structures</i> , 2000 , 37, 311-329	3.1	82
234	Role of foreign-object damage on thresholds for high-cycle fatigue in Ti-6Al-4V. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2000 , 31, 1571-1583	2.3	52
233	High-temperature fracture and fatigue-crack growth behavior of an XD gamma-based titanium aluminide intermetallic alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2000 , 31, 1413-1423	2.3	7
232	Stereophotogrammetric investigation of overload and cyclic fatigue fracture surface morphologies in a Zr-Ti-Ni-Cu-Be bulk metallic glass. <i>Journal of Materials Research</i> , 2000 , 15, 898-903	2.5	28
231	Fracture, fatigue and environmentally-assisted failure of a Zr-based bulk amorphous metal. <i>Intermetallics</i> , 2000 , 8, 469-475	3.5	37
230	On the temperature dependence of the superelastic strength and the prediction of the theoretical uniaxial transformation strain in Nitinol. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2000 , 80, 1759-1768		45
229	In Situ Measurement of Fatigue Crack Growth Rates in a Silicon Carbide Ceramic at Elevated Temperatures Using a DC Potential System. <i>Journal of Testing and Evaluation</i> , 2000 , 28, 236	1	19
228	A Statistical RKR Fracture Model for the Brittle Fracture of Functionally Graded Materials. <i>Materials Science Forum</i> , 1999 , 308-311, 957-962	0.4	3
227	Thresholds for high-cycle fatigue in a turbine engine Ti ₆ Al ₄ V alloy. <i>International Journal of Fatigue</i> , 1999 , 21, 653-662	5	101
226	High frequency fatigue crack propagation behavior of a nickel-base turbine disk alloy. <i>International Journal of Fatigue</i> , 1999 , 21, 725-731	5	44
225	On the fatigue behavior of β -based titanium aluminides: role of small cracks. <i>Acta Materialia</i> , 1999 , 47, 801-816	8.4	56
224	High-cycle fatigue of Ti ₆ Al ₄ V. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 1999 , 22, 621-631	3	96

223	Effect of viscous grain bridging on cyclic fatigue-crack growth in monolithic ceramics at elevated temperatures. <i>Acta Materialia</i> , 1999 , 47, 2809-2819	8.4	19
222	Mechanisms of fatigue-crack propagation in ductile and brittle solids. <i>International Journal of Fracture</i> , 1999 , 100, 55-83	2.3	606
221	The effect of microstructure on fracture toughness and fatigue crack growth behavior in Titanium aluminide based intermetallics. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1999 , 30, 563-577	2.3	73
220	Fatigue-crack propagation behavior of ductile/brittle laminated composites. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1999 , 30, 633-642	2.3	43
219	Mechanisms for fracture and fatigue-crack propagation in a bulk metallic glass. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1999 , 30, 1739-1753	2.3	207
218	Effect of aqueous environment on fatigue-crack propagation behavior in a Zr-based bulk amorphous metal*. <i>Scripta Materialia</i> , 1999 , 40, 1057-1061	5.6	32
217	Mixed-mode fatigue-crack growth thresholds in Ti-6Al-4V at high frequency. <i>Scripta Materialia</i> , 1999 , 41, 1067-1071	5.6	7
216	Fatigue-crack propagation in Nitinol, a shape-memory and superelastic endovascular stent material. <i>Journal of Biomedical Materials Research Part B</i> , 1999 , 47, 301-8		117
215	Flexor tendon repair using a stainless steel external splint. Biomechanical study on human cadaver flexor tendons. <i>Journal of Hand Surgery</i> , 1999 , 24, 654-7		10
214	Light emission during fracture of a ZrTiNiCuBe bulk metallic glass. <i>Applied Physics Letters</i> , 1999 , 74, 3809-3811	3.4	82
213	The importance of small fatigue cracks in advanced materials 1999 , 233-245		1
212	Small crack effects in ceramic materials 1999 , 283-288		
211	Transient fatigue-crack growth behavior following variable-amplitude loading in a monolithic silicon nitride ceramic. <i>Engineering Fracture Mechanics</i> , 1998 , 60, 303-313	4.2	8
210	Fatigue of a Zr-Ti-Cu-Ni-Be bulk amorphous metal: Stress/life and crack-growth behavior. <i>Scripta Materialia</i> , 1998 , 38, 537-542	5.6	133
209	Comparison of the Corrosion Behavior of a Bulk Amorphous Metal, Zr _{41.2} Ti _{13.8} Cu _{12.5} Ni ₁₀ Be _{22.5} , with Its Crystallized Form. <i>Scripta Materialia</i> , 1998 , 38, 1481-1485	5.6	78
208	Fracture toughness and R-Curve behavior of laminated brittle-matrix composites. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1998 , 29, 2483-2496	2.3	91
207	On the quantification of bridging tractions during subcritical crack growth under monotonic and cyclic fatigue loading in a grain-bridging silicon carbide ceramic. <i>Acta Materialia</i> , 1998 , 46, 609-616	8.4	36
206	High-temperature fracture and fatigue resistance of a ductile TiNb reinforced TiAl intermetallic composite. <i>Acta Materialia</i> , 1998 , 46, 4167-4180	8.4	15

205	Flexor tendon repair using a stainless steel internal anchor. Biomechanical study on human cadaver tendons. <i>Journal of Hand Surgery</i> , 1998 , 23, 37-40		16
204	Fatigue-Crack Growth in the Superelastic Endovascular Stent Material Nitinol. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 550, 281		3
203	Fatigue-Crack Propagation in Gamma-Based Titanium Aluminide Alloys at Large and Small Crack Sizes. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 552, 1		3
202	Mechanism for Light Emission During Fracture of a Zr-Ti-Cu-Ni-Be Bulk Metallic Glass: Temperature Measurements in Air and Nitrogen. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 554, 191		0
201	Fracture and Fatigue in a Zr-Based Bulk Metallic Glass. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 554, 343		2
200	The Cubic β to α Hexagonal Transformation to Toughen Sic 1998 , 177-190		6
199	Microstructural Effects on the Hardness, Elastic Modulus and Fracture Toughness of CVD Diamond. <i>Materials Research Society Symposia Proceedings</i> , 1997 , 505, 611		3
198	Fracture toughness and fatigue-crack propagation in a ZrTiNiCuBe bulk metallic glass. <i>Applied Physics Letters</i> , 1997 , 71, 476-478	3.4	386
197	MECHANISMS OF CYCLIC FATIGUE-CRACK PROPAGATION IN A FINE-GRAINED ALUMINA CERAMIC: THE ROLE OF CRACK CLOSURE. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 1997 , 20, 1453-1466	3	25
196	On the growth of small fatigue cracks in β -based titanium aluminides. <i>Scripta Materialia</i> , 1997 , 37, 707-712	3.6	30
195	On the anomalous temperature dependence of fatigue-crack growth in β -based titanium aluminides. <i>Scripta Materialia</i> , 1997 , 37, 1797-1803	5.6	19
194	Fatigue-crack growth of small cracks in a directionally-solidified nickel aluminide with molybdenum additions. <i>Scripta Materialia</i> , 1997 , 38, 245-251	5.6	3
193	Fatigue crack growth resistance in SiC particulate and whisker reinforced P/M 2124 aluminum matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1997 , 231, 170-182	5.3	34
192	Laminated Nb/Nb3Al composites: effect of layer thickness on fatigue and fracture behavior. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1997 , 239-240, 393-398	5.3	19
191	On the role of microstructure in fatigue-crack growth of β -based titanium aluminides. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1997 , 239-240, 722-728	5.3	13
190	Microstructural mechanisms of cyclic fatigue-crack propagation in grain-bridging ceramics. <i>Ceramics International</i> , 1997 , 23, 413-418	5.1	32
189	Limitations on the use of the mixed-mode delaminating beam test specimen: Effects of the size of the region of K-dominance. <i>Mechanics of Materials</i> , 1997 , 25, 291-308	3.3	54
188	Elastic Compliance of the Compact Tension Specimen Comprising Two Linear-Elastic Materials Bonded with a Thin Layer. <i>Journal of Testing and Evaluation</i> , 1997 , 25, 28	1	3

187	Fatigue of Ceramics and Intermetallics: Application to Damage Tolerance and Life Prediction in Cyclically-Loaded Brittle Materials 1997 , 377-403		
186	Phase transformations in an in situ Nb-reinforced Nb ₃ Al intermetallic composite. <i>Intermetallics</i> , 1996 , 4, 23-29	3.5	16
185	Toughness and Subcritical Crack Growth in Nb/Nb ₃ Al Layered Materials. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 434, 243		5
184	Fracture and fatigue-crack growth behavior in ductile-phase toughened molybdenum disilicide: Effects of niobium wires and particulate reinforcements. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1996 , 27, 3781-3792	2.3	51
183	Cyclic fatigue and resistance-curve behavior of an in situ toughened silicon carbide with Al B C additions. <i>Acta Materialia</i> , 1996 , 44, 3199-3214	8.4	76
182	On the interaction of cracks with bimaterial interfaces. <i>Materials Science</i> , 1996 , 32, 107-120	0.7	4
181	Resistance-curve toughening in ductile/brittle layered structures: Behavior in Nb/Nb ₃ Al laminates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1996 , 216, 80-90	5.3	49
180	Fracture and fatigue-crack growth along aluminum-alumina interfaces. <i>Acta Materialia</i> , 1996 , 44, 4713-4828		66
179	In Situ Toughened Silicon Carbide with Al-B-C Additions. <i>Journal of the American Ceramic Society</i> , 1996 , 79, 461-469	3.8	182
178	Crack Propagation in Metal-Matrix Composites. II: Mechanisms of Fatigue-Crack Growth 1996 , 461-494		1
177	Toughened Silicon Carbides for High-Temperature Use 1996 , 567-578		
176	Crack Propagation in Metal-Matrix Composites. I: Interaction of Cracks with Metal/Ceramic Interfaces 1996 , 445-460		
175	Fatigue and fracture of pyrolytic carbon: a damage-tolerant approach to structural integrity and life prediction in "ceramic" heart valve prostheses. <i>Journal of Heart Valve Disease</i> , 1996 , 5 Suppl 1, S9-31		5
174	Grain size effects on cyclic fatigue and crack-growth resistance behaviour of partially stabilized zirconia. <i>Journal of Materials Science</i> , 1995 , 30, 3291-3299	4.3	13
173	Cyclic fatigue in monolithic alumina: mechanisms for crack advance promoted by frictional wear of grain bridges. <i>Journal of Materials Science</i> , 1995 , 30, 643-654	4.3	49
172	Fatigue-crack propagation behavior in monolithic and composite ceramics and intermetallics. <i>Materials Science</i> , 1995 , 30, 277-300	0.7	1
171	Silicon Carbide Platelet/Silicon Carbide Composites. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 97-103	3.8	31
170	Behavior of Cyclic Fatigue Cracks in Monolithic Silicon Nitride. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 2291-2300	3.8	79

169	Fatigue-crack growth and fracture resistance of a two-phase (β - α) TiAl alloy in duplex and lamellar microstructures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1995 , 192-193, 474-482	5.3	50
168	Toughening mechanisms in ductile niobium-reinforced niobium aluminide (Nb/Nb ₃ Al) in situ composites. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1995 , 26, 2027-2033	2.3	29
167	Fracture of synthetic diamond. <i>Journal of Applied Physics</i> , 1995 , 78, 3083-3088	2.5	51
166	High-temperature fatigue-crack growth behavior in a two-phase (β - α) TiAl intermetallic alloy. <i>Scripta Metallurgica Et Materialia</i> , 1995 , 33, 459-465		23
165	Microstructural damage and fracture processes in a composite solid rocket propellant. <i>Journal of Spacecraft and Rockets</i> , 1995 , 32, 328-334	1.5	24
164	Fracture, Fatigue and Indentation Behavior of Pyrolytic Carbon for Biomedical Applications. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 383, 229		4
163	Fracture Toughness and Subcritical Crack Growth in CVD Diamond. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 383, 289		6
162	Microstructural Development to Toughen SiC. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 410, 257		3
161	Reply to Drs. Lankford and Sines. <i>Journal of Biomedical Materials Research Part B</i> , 1995 , 29, 676-678		
160	Elastic Compliance of Four-Point Bend Specimens Comprising Two Linear-Elastic Materials Bonded with a Thin Layer. <i>Journal of Testing and Evaluation</i> , 1995 , 23, 95	1	6
159	Fatigue-crack propagation behavior in ceramic materials 1994 , 359-364		
158	Near-interfacial crack trajectories in metal-ceramic layered structures. <i>International Journal of Fracture</i> , 1994 , 66, 227-240	2.3	31
157	Cyclic fatigue and fracture in pyrolytic carbon-coated graphite mechanical heart-valve prostheses: role of small cracks in life prediction. <i>Journal of Biomedical Materials Research Part B</i> , 1994 , 28, 791-804		30
156	Powder processing of ductile-phase-toughened Nb ₃ Al in situ composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1994 , 189, 201-208	5.3	9
155	Cyclic fatigue behavior and fracture toughness of silicon nitride ceramics sintered with rare-earth oxides. <i>Acta Metallurgica Et Materialia</i> , 1994 , 42, 3055-3064		15
154	Ductile-reinforcement toughening in TiAl intermetallic-matrix composites: Effects on fracture toughness and fatigue-crack propagation resistance. <i>Acta Metallurgica Et Materialia</i> , 1994 , 42, 893-911		76
153	Interface formation and strength in ceramic-metal systems. <i>Scripta Metallurgica Et Materialia</i> , 1994 , 31, 1109-1114		50
152	Back-Face Strain Compliance and Electrical-Potential Crack Length Calibrations for the Disk-Shaped Compact-Tension DC(T) Specimen. <i>Journal of Testing and Evaluation</i> , 1994 , 22, 117	1	24

151	Fatigue-Crack Propagation Behavior in Monolithic and Composite Ceramics and Intermetallics 1994 , 277-317		
150	On the strength and toughness of structural ceramics bonded to metals 1994 , 409-412		0
149	Crack Growth in a ductile-phase-toughened in situ intermetallic composite under monotonic and cyclic loading. <i>Scripta Metallurgica Et Materialia</i> , 1993 , 29, 1107-1112		50
148	Stress-Corrosion Cracking at Ceramic-Metal Interfaces. <i>Materials Research Society Symposia Proceedings</i> , 1993 , 314, 109		5
147	Mechanics and mechanisms of crack growth at or near ceramic-metal interfaces: interface engineering strategies for promoting toughness. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1993 , 166, 221-235	5.3	61
146	Cyclic fatigue-crack propagation in a silicon carbide whisker-reinforced alumina composite: role of load ratio. <i>Journal of Materials Science</i> , 1993 , 28, 3258-3266	4.3	30
145	The effects of prolonged thermal. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1993 , 24, 2233-2245		6
144	Strength, fracture, and fatigue behavior of advanced high-temperature intermetallics reinforced with ductile phases. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1993 , 24, 585-600		53
143	Failure mechanisms in SiC-fiber reinforced 6061 aluminum alloy composites under monotonic and cyclic loading. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1993 , 24, 721-734		11
142	PYROLYTIC CARBON COATINGS 1993 , 261-279		7
141	Microstructural Effects On Fatigue-Crack Growth Behavior In TiAl/TiNb Intermetallic Composites. <i>Materials Research Society Symposia Proceedings</i> , 1992 , 273, 127		
140	Fracture and Fatigue Behavior in Nb3Al+ Nb Intermetallic Composites. <i>Materials Research Society Symposia Proceedings</i> , 1992 , 273, 433		5
139	Fatigue of aluminium-lithium alloys. <i>International Materials Reviews</i> , 1992 , 37, 153-186	16.1	108
138	On the contrasting role of ductile-phase reinforcements in the fracture toughness and fatigue-crack propagation behavior of TiNb/TiAl intermetallic matrix composites. <i>Acta Metallurgica Et Materialia</i> , 1992 , 40, 353-361		96
137	Cyclic Fatigue-Crack Growth in a SiC-Whisker-Reinforced Alumina Ceramic Composite: Long- and Small-Crack Behavior. <i>Journal of the American Ceramic Society</i> , 1992 , 75, 759-771	3.8	151
136	Fatigue crack propagation resistance of ductile TiNb-reinforced TiAl intermetallic matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1992 , 153, 479-485	5.3	7
135	Ductile-phase toughening and Fatigue-Crack Growth in Nb-Reinforced Molybdenum Disilicide Intermetallic Composites. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1992 , 23, 2249-2257		52
134	On the fractography of overload, stress corrosion, and cyclic fatigue failures in pyrolytic-carbon materials used in prosthetic heart-valve devices. <i>Journal of Biomedical Materials Research Part B</i> , 1992 , 26, 69-76		11

133	CYCLIC FATIGUE-CRACK PROPAGATION IN CERAMICS AND CERAMIC COMPOSITES 1992 , 325-332		2
132	Fatigue crack propagation resistance of ductile TiNb-reinforced TiAl intermetallic matrix composites 1992 , 479-485		1
131	Cyclic Fatigue of Ceramics. <i>Journal of the Ceramic Society of Japan</i> , 1991 , 99, 1047-1062		98
130	A comparison of fatigue-crack propagation behavior in sheet and plate aluminum-lithium alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1991 , 141, 39-48	5.3	15
129	Cyclic Fatigue Life and Crack-Growth Behavior of Microstructurally Small Cracks in Magnesia-Partially-Stabilized Zirconia Ceramics. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 1259-1268	3.8	59
128	Fatigue crack propagation and cryogenic fracture toughness behavior in powder metallurgy aluminum-lithium alloys. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1991 , 22, 191-202		12
127	Cyclic fatigue-crack propagation along ceramic/metal interfaces. <i>Acta Metallurgica Et Materialia</i> , 1991 , 39, 2145-2156		78
126	Cyclic Fatigue-Crack Propagation in Magnesia-Partially-Stabilized Zirconia Ceramics. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 893-903	3.8	193
125	Crack-Tip Transformation Zones in Toughened Zirconia. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 2659-2666	3.8	83
124	Cyclic fatigue-crack growth behaviour of short cracks in SiC-reinforced lithium aluminosilicate glass-ceramic composite. <i>Journal of Materials Science Letters</i> , 1990 , 9, 719-725		20
123	Cyclic fatigue-crack propagation, stress-corrosion, and fracture-toughness behavior in pyrolytic carbon-coated graphite for prosthetic heart valve applications. <i>Journal of Biomedical Materials Research Part B</i> , 1990 , 24, 189-206		62
122	Transient subcritical crack-growth behavior in transformation-toughened ceramics. <i>Acta Metallurgica Et Materialia</i> , 1990 , 38, 2327-2336		28
121	Monotonic and cyclic crack growth in a TiC-particulate-reinforced Ti ₆ Al ₄ V metal-matrix composite. <i>Scripta Metallurgica Et Materialia</i> , 1990 , 24, 1691-1694		15
120	Mechanisms influencing the cryogenic fracture-toughness behavior of aluminum-lithium alloys. <i>Acta Metallurgica Et Materialia</i> , 1990 , 38, 2309-2326		41
119	On the interpretation of the fractal character of fracture surfaces. <i>Acta Metallurgica Et Materialia</i> , 1990 , 38, 143-159		159
118	Microstructural characterization of α + B2 titanium aluminide intermetallic (Super- α) using transmission electron microscopy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1990 , 130, 193-203	5.3	1
117	Fatigue-crack Propagation in Advanced Aerospace Materials: Aluminum-lithium Alloys 1989 , 3787-3816		2
116	Mechanical properties of AlTi alloys Part 2 Fatigue crack propagation. <i>Materials Science and Technology</i> , 1989 , 5, 896-907	1.5	27

115	Crack bridging by uncracked ligaments during fatigue-crack growth in SiC-reinforced aluminum-alloy composites. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1989 , 20, 897-908		151
114	Cryogenic toughness of commercial aluminum-lithium alloys: Role of delamination toughening. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1989 , 20, 485-497		85
113	Mechanisms associated with transient fatigue crack growth under variable-amplitude loading: An experimental and numerical study. <i>Engineering Fracture Mechanics</i> , 1989 , 32, 613-638	4.2	113
112	Fatigue crack propagation in ARALL [®] LAMINATES: Measurement of the effect of crack-tip shielding from crack bridging. <i>Engineering Fracture Mechanics</i> , 1989 , 32, 361-377	4.2	96
111	On the particle-size dependence of fatigue-crack propagation thresholds in SiC-particulate-reinforced aluminum-alloy composites: Role of crack closure and crack trapping. <i>Acta Metallurgica</i> , 1989 , 37, 2267-2278		125
110	Spatially Resolved Raman Spectroscopy Study of Transformed Zones in Magnesia-Partially-Stabilized Zirconia. <i>Journal of the American Ceramic Society</i> , 1989 , 72, 1124-1130	3.8	47
109	Fracture-toughness behavior of 2090-T83 aluminium-lithium alloy sheet at ambient and cryogenic temperatures. <i>Scripta Metallurgica</i> , 1989 , 23, 1129-1134		11
108	Mechanical properties of AlLi alloys Part 1 Fracture toughness and microstructure. <i>Materials Science and Technology</i> , 1989 , 5, 882-895	1.5	66
107	Fracture toughness, fatigue crack propagation and creep rupture behaviour in thick section weldments of 3Cr-Mo pressurevessel steels developed for high-temperature/high-pressure hydrogen service. <i>High Temperature Technology</i> , 1989 , 7, 17-26		1
106	Ceramic/metal interfacial crack growth: Toughening by controlled microcracks and interfacial geometries. <i>Acta Metallurgica</i> , 1988 , 36, 2083-2093		76
105	On the behavior of small fatigue cracks in commercial aluminum-lithium alloys. <i>Engineering Fracture Mechanics</i> , 1988 , 31, 623-635	4.2	49
104	On the effect of sampling volume on the microscopic cleavage fracture stress. <i>Engineering Fracture Mechanics</i> , 1988 , 29, 697-703	4.2	6
103	Mechanisms of fatigue crack propagation in metals, ceramics and composites: Role of crack tip shielding. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1988 , 103, 15-28	5.3	631
102	Mechanisms for the retardation of fatigue cracks following single tensile overloads: behavior in aluminum-lithium alloys. <i>Acta Metallurgica</i> , 1988 , 36, 2849-2862		38
101	Effect of prolonged high-temperature exposure on the fatigue and fracture behavior of aluminum-lithium alloy 2090. <i>Materials Science and Engineering</i> , 1988 , 100, 23-30		17
100	Role of silicon carbide particles in fatigue crack growth in SiC-particulate-reinforced aluminum alloy composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1988 , 102, 181-192	5.3	145
99	Fatigue crack propagation in aluminum- lithium alloy 2090: Part I. long crack behavior. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1988 , 19, 549-561		71
98	Fatigue crack propagation in aluminum-lithium alloy 2090: Part II. small crack behavior. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1988 , 19, 563-569		22

97	On the fracture toughness of aluminum-lithium alloy 2090-T8E41 at ambient and cryogenic temperatures. <i>Scripta Metallurgica</i> , 1988 , 22, 93-98		32
96	Crack-Tip Shielding in Metal-Matrix Composites: Modelling Of Crack Bridging by Uncracked Ligaments. <i>Materials Research Society Symposia Proceedings</i> , 1988 , 120, 81		1
95	Fatigue Crack Propagation in 2090 Aluminum-Lithium Alloy: Effect of Compression Overload Cycles. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 1987 , 109, 81-85	1.8	24
94	Use of a constant K _{max} test procedure to predict small crack growth behavior in 2090-T8E41 aluminum-lithium alloy. <i>Scripta Metallurgica</i> , 1987 , 21, 1541-1546		14
93	Effects of pre-existing grain boundary microvoid distributions on fracture toughness and fatigue crack growth in low alloy steel. <i>Acta Metallurgica</i> , 1987 , 35, 2227-2242		11
92	role of crack tip shielding in the initiation and growth of long and small fatigue cracks in composite microstructures. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1987 , 18, 1613-1627		48
91	Stochastic modeling of the independent roles of particle size and grain size in transgranular cleavage fracture. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1987 , 18, 641-651	2.3	120
90	AN ANALYSIS OF CRACK TIP SHIELDING IN ALUMINUM ALLOY 2124: A COMPARISON OF LARGE, SMALL, THROUGH-THICKNESS AND SURFACE FATIGUE CRACKS. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 1987 , 10, 343-362	3	57
89	Fatigue Crack Propagation in Transformation-Toughened Zirconia Ceramic. <i>Journal of the American Ceramic Society</i> , 1987 , 70, C-248-C-252	3.8	149
88	Subcritical Crack Growth along Ceramic-Metal Interfaces. <i>Journal of the American Ceramic Society</i> , 1987 , 70, C-352-C-355	3.8	8
87	Statistical analysis of cleavage fracture ahead of sharp cracks and rounded notches. <i>Acta Metallurgica</i> , 1986 , 34, 2205-2216		80
86	A statistical model of brittle fracture by transgranular cleavage. <i>Journal of the Mechanics and Physics of Solids</i> , 1986 , 34, 477-497	5	144
85	Small fatigue cracks: A statement of the problem and potential solutions. <i>Materials Science and Engineering</i> , 1986 , 84, 11-16		163
84	Fatigue life estimation procedures for the endurance of a cardiac valve prosthesis: stress/life and damage-tolerant analyses. <i>Journal of Biomechanical Engineering</i> , 1986 , 108, 153-60	2.1	31
83	On the growth of small fatigue cracks in aluminum-lithium alloy 2090. <i>Scripta Metallurgica</i> , 1986 , 20, 1459-1464		26
82	Susceptibility to hydrogen attack of a thick-section 3Cr $\frac{1}{2}$ Mo $\frac{1}{2}$ Ni pressure-vessel steel-role of cooling rate. <i>Materials Science and Technology</i> , 1985 , 1, 198-208	1.5	5
81	On the growth of cracks at the fatigue threshold following compression overloads: Role of load ratio. <i>Materials Science and Engineering</i> , 1985 , 74, 11-17		4
80	Effects of microstructure on fatigue crack propagation and crack closure behavior in aluminum alloy 7150. <i>Materials Science and Engineering</i> , 1985 , 70, 151-160		44

79	On macroscopic and microscopic analyses for crack initiation and crack growth toughness in ductile alloys. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1985 , 16, 233-248		13
78	On macroscopic and microscopic analyses for crack initiation and crack growth toughness in ductile alloys. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1985 , 16, 233-248		276
77	On the development of crack closure and the threshold condition for short and long fatigue cracks in 7150 aluminum alloy. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1985 , 16, 1467-1477		37
76	A study of fatigue crack propagation in prior hydrogen attacked pressure vessel steels. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1985 , 16, 1491-1501		13
75	Fatigue crack propagation in oil environments□ Crack growth behavior in silicone and paraffin oils. <i>Acta Metallurgica</i> , 1985 , 33, 105-116		37
74	On the role of compression overloads in influencing crack closure and the threshold condition for fatigue crack growth in 7150 aluminum alloy. <i>Engineering Fracture Mechanics</i> , 1985 , 22, 35-48	4.2	32
73	Fatigue crack propagation in oil environments□□. A model for crack closure induced by viscous fluids. <i>Acta Metallurgica</i> , 1985 , 33, 117-127		40
72	Fatigue crack propagation in a dual-phase plain-carbon steel. <i>Scripta Metallurgica</i> , 1985 , 19, 751-755		12
71	SLOW CRACK GROWTH: MACROSCOPIC AND MICROSCOPIC ASPECTS 1985 , 93-124		2
70	THRESHOLDS FOR FATIGUE CRACK PROPAGATION: QUESTIONS AND ANOMALIES 1984 , 235-260		3
69	Effects of microstructure on fatigue crack growth in duplex ferrite-martensite steels. <i>Materials Science and Engineering</i> , 1984 , 62, 79-92		33
68	Fatigue crack propagation in dual-phase steels: Effects of ferritic-martensitic microstructures on crack path morphology. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1984 , 15, 1193-1207	2.3	72
67	A new series of advanced 3Cr-Mo-Ni steels for thick section pressure vessels in high temperature and pressure hydrogen service. <i>Journal of Materials for Energy Systems</i> , 1984 , 6, 151-162		6
66	Propagation of short fatigue cracks. <i>International Metals Reviews</i> , 1984 , 29, 445-475		114
65	On the location of crack closure and the threshold condition for fatigue crack growth. <i>Scripta Metallurgica</i> , 1984 , 18, 847-850		14
64	Propagation of short fatigue cracks. <i>International Materials Reviews</i> , 1984 , 29, 445-475	16.1	297
63	FATIGUE CRACK PROPAGATION IN VISCOUS ENVIRONMENTS 1984 , 711-717		1
62	Micro-mechanical modelling of mode III fatigue crack growth in rotor steels. <i>International Journal of Fracture</i> , 1983 , 23, 163-185	2.3	37

61	Influence of overloads and block loading sequences on Mode III fatigue crack propagation in A469 rotor steel. <i>Engineering Fracture Mechanics</i> , 1983 , 18, 763-783	4.2	22
60	On the influence of environment on the load ratio dependence of fatigue thresholds in pressure vessel steel. <i>Engineering Fracture Mechanics</i> , 1983 , 18, 785-800	4.2	94
59	On the influence of rubbing fracture surfaces on fatigue crack propagation in mode III. <i>International Journal of Fatigue</i> , 1983 , 5, 29-35	5	35
58	Some considerations on the modelling of oxide-induced fatigue crack closure using solutions for a rigid wedge inside a linear elastic crack. <i>Scripta Metallurgica</i> , 1983 , 17, 575-580		43
57	Why Ductile Fracture Mechanics?. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 1983 , 105, 1-7	1.8	17
56	On the contrast between mode I and mode III fatigue crack propagation under variable-amplitude loading conditions. <i>Materials Science and Engineering</i> , 1983 , 59, L1-L5		7
55	The fracture mechanics similitude concept: questions concerning its application to the behavior of short fatigue cracks. <i>Materials Science and Engineering</i> , 1983 , 57, L27-L30		34
54	Effects of Crack Flank Oxide Debris and Fracture Surface Roughness on Near-Threshold Corrosion Fatigue 1983 , 835-845		2
53	Mechanistic dissimilarities between environmentally influenced fatigue-crack propagation at near-threshold and higher growth rates in lower strength steels. <i>Metal Science</i> , 1982 , 16, 529-538		70
52	Influence of plastic deformation on hydrogen transport in 2 14 Cr-1Mo steel. <i>Scripta Metallurgica</i> , 1982 , 16, 455-459		35
51	Some considerations on fatigue crack closure at near-threshold stress intensities due to fracture surface morphology. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1982 , 13, 937-940		200
50	Mode III fatigue crack propagation in low alloy steel. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1982 , 13, 101-110		78
49	A geometric model for fatigue crack closure induced by fracture surface roughness. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1982 , 13, 1627-1631		346
48	Effects of friction and high torque on fatigue crack propagation in Mode III. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1982 , 13, 2197-2204		52
47	Fatigue crack propagation thresholds for long and short cracks in Ren95 Nickel-base superalloy. <i>Materials Science and Engineering</i> , 1982 , 55, 63-67		63
46	ON THE CALIBRATION, OPTIMIZATION AND USE OF d.c. ELECTRICAL POTENTIAL METHODS FOR MONITORING MODE III CRACK GROWTH IN TORSIONALLY-LOADED SAMPLES. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 1982 , 5, 91-99	3	22
45	On the influence of gaseous hydrogen in decelerating fatigue crack growth rates in ultrahigh strength steels. <i>Scripta Metallurgica</i> , 1981 , 15, 905-908		36
44	An evaluation of the application of fracture mechanics procedures to fusion first wall structures. <i>Journal of Nuclear Materials</i> , 1981 , 103, 149-154	3.3	4

43	On the influence of fatigue underloads on cyclic crack growth at low stress intensities. <i>Materials Science and Engineering</i> , 1981 , 51, 61-69		29
42	Application of Fracture Mechanics to Fatigue, Corrosion-Fatigue and Hydrogen Embrittlement 1981 , 81-108		5
41	Near-Threshold Fatigue Crack Growth in 2 1/4 Cr-1Mo Pressure Vessel Steel in Air and Hydrogen. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 1980 , 102, 293-299	1.8	182
40	On the Use of Side-Grooves in Estimating J _{Ic} Fracture Toughness With Charpy-Size Specimens. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 1980 , 102, 192-199	1.8	28
39	FRACTURE TOUGHNESS PREDICTIONS FOR NUCLEAR PRESSURE VESSEL STEELS 1980 , 489-500		
38	On the calibration of the electrical potential technique for monitoring crack growth using finite element methods. <i>International Journal of Fracture</i> , 1979 , 15, 47-55	2.3	95
37	INFLUENCE OF RETAINED AUSTENITE ON FATIGUE CRACK PROPAGATION IN HP 9-4-20 HIGH STRENGTH ALLOY STEEL. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 1979 , 1, 107-121	3	13
36	Critical fracture stress and fracture strain models for the prediction of lower and upper shelf toughness in nuclear pressure vessel steels. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1979 , 10, 1557-1570		208
35	Near-threshold fatigue-crack propagation in steels. <i>International Metals Reviews</i> , 1979 , 24, 205-230		20
34	Near-threshold fatigue-crack propagation in steels. <i>International Materials Reviews</i> , 1979 , 24, 205-230	16.1	196
33	Optimization of the Electrical Potential Technique for Crack Growth Monitoring in Compact Test Pieces Using Finite Element Analysis. <i>Journal of Testing and Evaluation</i> , 1979 , 7, 208	1	57
32	A simple test method for measuring valid J _{Ic} fracture toughness in Charpy-size surveillance specimens of nuclear pressure vessel steel. <i>International Journal of Fracture</i> , 1978 , 14, R329-R334	2.3	16
31	Further considerations on the inconsistency in toughness evaluation of AISI 4340 steel austenitized at increasing temperatures. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1978 , 9, 331-341		145
30	Effects of silicon additions and retained austenite on stress corrosion cracking in ultrahigh strength steels. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1978 , 9, 35-40		66
29	Mechanisms of tempered martensite embrittlement in low alloy steels. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1978 , 9, 1039-1053		200
28	Authors' reply to "Comments on "The effect of prior austenite grain size on near-threshold fatigue crack growth" by J.-P. Bai lon, J. Masounave and J. Lantaigne" <i>Scripta Metallurgica</i> , 1978 , 12, 613-614		1
27	EFFECTS OF STRENGTH AND GRAIN SIZE ON NEAR-THRESHOLD FATIGUE CRACK GROWTH IN ULTRA-HIGH STRENGTH STEEL 1978 , 1325-1331		
26	Near-Threshold Fatigue Crack Propagation in Ultra-High Strength Steel: Influence of Load Ratio and Cyclic Strength. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 1977 , 99, 195-204	1.8	108

25	Influence of microstructure on near-threshold fatigue-crack propagation in ultra-high strength steel. <i>Metal Science</i> , 1977 , 11, 368-381		135
24	On the effect of prior austenite grain size on near-threshold fatigue crack growth. <i>Scripta Metallurgica</i> , 1977 , 11, 1113-1118		37
23	Influence of impurity segregation on temper embrittlement and on slow fatigue crack growth and threshold behavior in 300-M high strength steel. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1977 , 8, 1131-1140		40
22	Evaluation of toughness in AISI 4340 alloy steel austenitized at low and high temperatures. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1976 , 7, 831-838		229
21	Effects of Thickness on Fibrous Fracture from a Notch and on Fatigue-Crack Propagation in Low-Strength Steel. <i>Metal Science</i> , 1975 , 9, 485-492		24
20	Some Considerations of the Influence of Sub-Critical Cleavage Growth during Fatigue-Crack Propagation in Steels. <i>Metal Science</i> , 1975 , 9, 119-126		69
19	Contribution on slow fatigue crack growth and threshold behaviour of a medium carbon steel in air and vacuum by R. J. Cooke, P. E. Irving, G. S. Booth and C. J. Beevers. <i>Engineering Fracture Mechanics</i> , 1975 , 7, 187-189	4.2	10
18	Fatigue crack propagation in a Type 316 stainless steel weldment. <i>Metals Technology</i> , 1975 , 2, 253-263		39
17	Micro cleavage cracking during fatigue crack propagation in low strength steel. <i>Materials Science and Engineering</i> , 1974 , 14, 7-14		75
16	On the influence of high austenitizing temperatures and overheating on fracture and fatigue crack propagation in a low alloy steel. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1974 , 5, 782-785		47
15	Mechanisms of fatigue crack growth in low alloy steel. <i>Acta Metallurgica</i> , 1973 , 21, 639-648		220
14	On the relationship between critical tensile stress and fracture toughness in mild steel. <i>Journal of the Mechanics and Physics of Solids</i> , 1973 , 21, 395-410	5	1192
13	Segregation Effects and the Toughness of Untempered Low-Alloy Steels. <i>Nature: Physical Science</i> , 1972 , 239, 104-106		32
12	Crack-growth monitoring: Optimisation of the electrical potential technique using an analogue method. <i>International Journal of Fracture Mechanics</i> , 1971 , 7, 462		80
11	On the Crack-Tip Blunting Model for Fatigue Crack Propagation in Ductile Materials 552-552-13		8
10	On the Role of Crack Closure Mechanisms in Influencing Fatigue Crack Growth Following Tensile Overloads in a Titanium Alloy: Near Threshold Versus Higher 93-93-19		19
9	Development of Fatigue Crack Closure with the Extension of Long and Short Cracks in Aluminum Alloy 2124: A Comparison of Experimental and Numerical Results 300-300-17		6
8	Role of Austenite Plasticity in the Deformation of Superelastic Nitinol 609-616		

7	Fracture Properties of Cortical Bone and Dentin. <i>Ceramic Transactions</i> ,53-62	0.1	
6	An Experimental Assessment of Using Crack-Opening Displacements to Determine Indentation Toughness from Vickers Indents. <i>Ceramic Transactions</i> ,83-91	0.1	
5	Fracture and Fatigue-Crack Growth Behavior in Mo-12Si-8.5B Intermetallics at Ambient and Elevated Temperatures16-24		
4	High-Temperature Cyclic Fatigue-Crack Growth in Monolithic Ti3SiC2 Ceramics70-75		
3	Mechanisms of High-Temperature Fatigue and Fracture in Silicon Carbide Ceramics1-8		2
2	Fracture properties of high-entropy alloys. <i>MRS Bulletin</i> ,1	3.2	0
1	High-entropy materials. <i>MRS Bulletin</i> ,1	3.2	2