

# Daniel Kiener

## List of Publications by Year in Descending Order

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**Version:** 2024-04-23

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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.

149  
papers

5,396  
citations

38  
h-index

70  
g-index

157  
ext. papers

6,085  
ext. citations

5.4  
avg, IF

5.92  
L-index

#	Paper	IF	Citations
149	Effect of crystal orientation on the hardness and strength of piezoelectric LiNbO <sub>3</sub> substrates for microelectronic applications. <i>Materials and Design</i> , <b>2022</b> , 213, 110306	8.1	1
148	Helium-induced swelling and mechanical property degradation in ultrafine-grained W and W-Cu nanocomposites for fusion applications. <i>Scripta Materialia</i> , <b>2022</b> , 213, 114641	5.6	2
147	The influence of chemistry on the interface toughness in a WTi-Cu system. <i>Acta Materialia</i> , <b>2022</b> , 230, 117813	8.4	2
146	Tuning mechanical properties of ultrafine-grained tungsten by manipulating grain boundary chemistry. <i>Acta Materialia</i> , <b>2022</b> , 117939	8.4	0
145	A Perspective to Control Laser-Induced Periodic Surface Structure Formation at Glancing-Incident Femtosecond Laser-Processed Surfaces.. <i>Jom</i> , <b>2021</b> , 73, 4248-4257	2.1	0
144	Initiation of fatigue damage in ultrafine grained metal films. <i>Acta Materialia</i> , <b>2021</b> , 206, 116599	8.4	4
143	How the interface type manipulates the thermomechanical response of nanostructured metals: A case study on nickel. <i>Materialia</i> , <b>2021</b> , 15, 101020	3.2	1
142	Zr addition-dependent twin morphology evolution and strengthening response in nanostructured Al thin films. <i>Materialia</i> , <b>2021</b> , 16, 101076	3.2	0
141	Strength ranking for interfaces between a TiN hard coating and microstructural constituents of high speed steel determined by micromechanical testing. <i>Materials and Design</i> , <b>2021</b> , 204, 109690	8.1	6
140	Open-cell tungsten nanofoams: Scaling behavior and structural disorder dependence of Young's modulus and flow strength. <i>Materials and Design</i> , <b>2021</b> , 197, 109187	8.1	3
139	The effect of grain size on bubble formation and evolution in helium-irradiated Cu-Fe-Ag. <i>Materials Characterization</i> , <b>2021</b> , 171, 110822	3.9	3
138	Multi-method characterization approach to facilitate a strategy to design mechanical and electrical properties of sintered copper. <i>Materials and Design</i> , <b>2021</b> , 197, 109188	8.1	2
137	Prospects of Using Small Scale Testing to Examine Different Deformation Mechanisms in Nanoscale Single Crystals: A Case Study in Mg. <i>Crystals</i> , <b>2021</b> , 11, 61	2.3	1
136	Extracting information from noisy data: Strain mapping during dynamic in-situ SEM experiments. <i>Journal of Materials Research</i> , <b>2021</b> , 36, 2291-2304	2.5	3
135	In situ fracture observations of distinct interface types within a fully lamellar intermetallic TiAl alloy. <i>Journal of Materials Research</i> , <b>2021</b> , 36, 2465-2478	2.5	4
134	In-situ TEM investigation of toughening in Silicon at small scales. <i>Materials Today</i> , <b>2021</b> , 48, 29-29	21.8	0
133	Disordered interfaces enable high temperature thermal stability and strength in a nanocrystalline aluminum alloy. <i>Acta Materialia</i> , <b>2021</b> , 215, 116973	8.4	7

132	How grain boundary characteristics influence plasticity close to and above the critical temperature of ultra-fine grained bcc Ta2.5W. <i>Acta Materialia</i> , <b>2021</b> , 216, 117110	8.4	1
131	High-speed nanoindentation mapping of organic matter-rich rocks: A critical evaluation by correlative imaging and machine learning data analysis. <i>International Journal of Coal Geology</i> , <b>2021</b> , 247, 103847	5.5	2
130	Controlling the high temperature deformation behavior and thermal stability of ultra-fine-grained W by re alloying. <i>Journal of Materials Research</i> , <b>2021</b> , 36, 2408-2419	2.5	3
129	Addressing Fracture Properties of Individual Constituents Within a Cu-WTi-SiOx-Si Multilayer. <i>Jom</i> , <b>2020</b> , 72, 4551-4558	2.1	4
128	Addressing H-Material Interaction in Fast Diffusion Materials-A Feasibility Study on a Complex Phase Steel. <i>Materials</i> , <b>2020</b> , 13,	3.5	5
127	In-situ observation of the initiation of plasticity by nucleation of prismatic dislocation loops. <i>Nature Communications</i> , <b>2020</b> , 11, 2367	17.4	13
126	Experimental and Numerical Investigation of the Deformation and Fracture Mode of Microcantilever Beams Made of Cr(Re)/Al <sub>2</sub> O <sub>3</sub> MetalMatrix Composite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2020</b> , 51, 2377-2390	2.3	6
125	An analytical solution for the correct determination of crack lengths via cantilever stiffness. <i>Materials and Design</i> , <b>2020</b> , 194, 108914	8.1	6
124	Thermally activated deformation mechanisms and solid solution softening in W-Re alloys investigated via high temperature nanoindentation. <i>Materials and Design</i> , <b>2020</b> , 189, 108499	8.1	18
123	Open-cell tungsten nanofoams: Chloride ion induced structure modification and mechanical behavior. <i>Results in Physics</i> , <b>2020</b> , 17, 103062	3.7	2
122	An SEM compatible plasma cell for in situ studies of hydrogen-material interaction. <i>Review of Scientific Instruments</i> , <b>2020</b> , 91, 043705	1.7	8
121	Achieving work hardening by forming boundaries on the nanoscale in a Ti-based metallic glass matrix composite. <i>Journal of Materials Science and Technology</i> , <b>2020</b> , 50, 192-203	9.1	7
120	Tailoring ultra-strong nanocrystalline tungsten nanofoams by reverse phase dissolution. <i>Acta Materialia</i> , <b>2020</b> , 182, 215-225	8.4	13
119	Intrinsic toughness of the bulk-metallic glass Vitreloy 105 measured using micro-cantilever beams. <i>Acta Materialia</i> , <b>2020</b> , 183, 242-248	8.4	12
118	Probing defect relaxation in ultra-fine grained Ta using micromechanical spectroscopy. <i>Acta Materialia</i> , <b>2020</b> , 185, 309-319	8.4	1
117	Correlation between fracture characteristics and valence electron concentration of sputtered Hf-C-N based thin films. <i>Surface and Coatings Technology</i> , <b>2020</b> , 399, 126212	4.4	8
116	Nanoscale pore structure of Carboniferous coals from the Ukrainian Donets Basin: A combined HRTEM and gas sorption study. <i>International Journal of Coal Geology</i> , <b>2020</b> , 224, 103484	5.5	17
115	Fracture behavior and deformation mechanisms in nanolaminated crystalline/amorphous micro-cantilevers. <i>Acta Materialia</i> , <b>2019</b> , 180, 73-83	8.4	24

114	Rate limiting deformation mechanisms of bcc metals in confined volumes. <i>Acta Materialia</i> , <b>2019</b> , 166, 687-701	8.4	22
113	Fracture properties of ultrafine grain chromium correlated to single dislocation processes at room temperature. <i>Journal of Materials Research</i> , <b>2019</b> , 34, 2370-2383	2.5	7
112	Bioinspired nacre-like alumina with a bulk-metallic glass-forming alloy as a compliant phase. <i>Nature Communications</i> , <b>2019</b> , 10, 961	17.4	54
111	Ultrafine-grained Tungsten by High-Pressure Torsion [Bulk precursor versus powder processing route. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2019</b> , 580, 012051	0.4	3
110	Anneal hardening and elevated temperature strain rate sensitivity of nanostructured metals: Their relation to intergranular dislocation accommodation. <i>Acta Materialia</i> , <b>2019</b> , 165, 409-419	8.4	31
109	Universally scaling Hall-Petch-like relationship in metallic glass matrix composites. <i>International Journal of Plasticity</i> , <b>2018</b> , 105, 225-238	7.6	33
108	Incipient plasticity and surface damage in LiTaO <sub>3</sub> and LiNbO <sub>3</sub> single crystals. <i>Materials and Design</i> , <b>2018</b> , 153, 221-231	8.1	20
107	In-situ elastic-plastic fracture mechanics on the microscale by means of continuous dynamical testing. <i>Materials and Design</i> , <b>2018</b> , 148, 177-187	8.1	24
106	Atomistic origins of the differences in anisotropic fracture behaviour of LiTaO <sub>3</sub> and LiNbO <sub>3</sub> single crystals. <i>Acta Materialia</i> , <b>2018</b> , 150, 373-380	8.4	12
105	Essential refinements of spherical nanoindentation protocols for the reliable determination of mechanical flow curves. <i>Materials and Design</i> , <b>2018</b> , 146, 69-80	8.1	23
104	Nanoindentation creep behavior of Cu <sub>47</sub> Zr metallic glass films. <i>Materials Research Letters</i> , <b>2018</b> , 6, 22-28	7.4	38
103	Linking Macroscopic Fracture Properties to Single Dislocation Processes. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 2184-2185	0.5	
102	In-situ TEM observation of {101 $\bar{1}$ 2} twin-dominated deformation of Mg pillars: Twinning mechanism, size effects and rate dependency. <i>Acta Materialia</i> , <b>2018</b> , 158, 407-421	8.4	56
101	Understanding the effect of surface flaws on the strength distribution of brittle single crystals. <i>Journal of the American Ceramic Society</i> , <b>2018</b> , 101, 5705-5716	3.8	7
100	High Temperature Flow Behavior of Ultra-Strong Nanoporous Au assessed by Spherical Nanoindentation. <i>Nanomaterials</i> , <b>2018</b> , 8,	5.4	4
99	Constituent constraining effects on the microstructural evolution, ductility, and fracture mode of crystalline/amorphous nanolaminates. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 768, 88-96	5.7	5
98	Impact of interfaces on the radiation response and underlying defect recovery mechanisms in nanostructured Cu-Fe-Ag. <i>Materials and Design</i> , <b>2018</b> , 160, 1148-1157	8.1	13
97	Crack arrest in thin metallic film stacks due to material- and residual stress inhomogeneities. <i>Thin Solid Films</i> , <b>2018</b> , 668, 14-22	2.2	10

96	Fracture mechanics of micro samples: Fundamental considerations. <i>Materials and Design</i> , <b>2018</b> , 159, 252-267	2.67	44
95	The influence of microstructure on the cyclic deformation and damage of copper and an oxide dispersion strengthened steel studied via in-situ micro-beam bending. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2017</b> , 687, 313-322	5.3	12
94	Selective interface toughness measurements of layered thin films. <i>AIP Advances</i> , <b>2017</b> , 7, 035307	1.5	6
93	The use of femtosecond laser ablation as a novel tool for rapid micro-mechanical sample preparation. <i>Materials and Design</i> , <b>2017</b> , 121, 109-118	8.1	62
92	Extraction of Flow Behavior and Hall-Petch Parameters Using a Nanoindentation Multiple Sharp Tip Approach. <i>Advanced Engineering Materials</i> , <b>2017</b> , 19, 1600669	3.5	19
91	Film thickness dependent microstructural changes of thick copper metallizations upon thermal fatigue. <i>Journal of Materials Research</i> , <b>2017</b> , 32, 2022-2034	2.5	3
90	Strength distribution and fracture analyses of LiNbO <sub>3</sub> and LiTaO <sub>3</sub> single crystals under biaxial loading. <i>Journal of the European Ceramic Society</i> , <b>2017</b> , 37, 4397-4406	6	16
89	Extracting flow curves from nano-sized metal layers in thin film systems. <i>Scripta Materialia</i> , <b>2017</b> , 130, 143-147	5.6	5
88	Dominating deformation mechanisms in ultrafine-grained chromium across length scales and temperatures. <i>Acta Materialia</i> , <b>2017</b> , 140, 176-187	8.4	21
87	Micro-Mechanical In Situ Measurements in Thin Film Systems Regarding the Determination of Residual Stress, Fracture Properties and Interface Toughness. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 750-751	0.5	2
86	Laser Ultrasonic Thin Film Characterization of Si-Cu-Al-Cu Multi-Layered Stacks. <i>Materials Today: Proceedings</i> , <b>2017</b> , 4, 7122-7127	1.4	
85	Dynamic nanoindentation testing: is there an influence on a material's hardness?. <i>Materials Research Letters</i> , <b>2017</b> , 5, 486-493	7.4	23
84	Development and application of a heated in-situ SEM micro-testing device. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2017</b> , 110, 356-366	4.6	14
83	Accelerated thermo-mechanical fatigue of copper metallizations studied by pulsed laser heating. <i>Microelectronic Engineering</i> , <b>2017</b> , 167, 110-118	2.5	8
82	Substrate-Influenced Thermo-Mechanical Fatigue of Copper Metallizations: Limits of Stoney's Equation. <i>Materials</i> , <b>2017</b> , 10,	3.5	4
81	Cross-sectional structure-property relationship in a graded nanocrystalline Ti <sub>1-x</sub> Al <sub>x</sub> N thin film. <i>Acta Materialia</i> , <b>2016</b> , 102, 212-219	8.4	31
80	Correlative microstructure and topography informed nanoindentation of copper films. <i>Surface and Coatings Technology</i> , <b>2016</b> , 308, 404-413	4.4	8
79	Advanced characterisation of thermo-mechanical fatigue mechanisms of different copper film systems for wafer metallizations. <i>Thin Solid Films</i> , <b>2016</b> , 612, 153-164	2.2	14

78	Ductilisation of tungsten (W) through cold-rolling: R-curve behaviour. <i>International Journal of Refractory Metals and Hard Materials</i> , <b>2016</b> , 58, 22-33	4.1	35
77	Miniaturized fracture experiments to determine the toughness of individual films in a multilayer system. <i>Extreme Mechanics Letters</i> , <b>2016</b> , 8, 235-244	3.9	18
76	High resolution determination of local residual stress gradients in single- and multilayer thin film systems. <i>Acta Materialia</i> , <b>2016</b> , 103, 616-623	8.4	44
75	Synthesis and Mechanical Characterisation of an Ultra-Fine Grained Ti-Mg Composite. <i>Materials</i> , <b>2016</b> , 9,	3.5	4
74	FIB-induced dislocations in Al submicron pillars: Annihilation by thermal annealing and effects on deformation behavior. <i>Acta Materialia</i> , <b>2016</b> , 110, 283-294	8.4	49
73	The effect of size on the strength of FCC metals at elevated temperatures: annealed copper. <i>Philosophical Magazine</i> , <b>2016</b> , 96, 3379-3395	1.6	19
72	Interface dominated mechanical properties of ultra-fine grained and nanoporous Au at elevated temperatures. <i>Acta Materialia</i> , <b>2016</b> , 121, 104-116	8.4	27
71	Interplay between sample size and grain size: Single crystalline vs. ultrafine-grained chromium micropillars. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2016</b> , 674, 626-633	5.3	22
70	In-Situ Measurements of Free-Standing, Ultra-Thin Film Cracking in Bending. <i>Experimental Mechanics</i> , <b>2015</b> , 55, 1681-1690	2.6	22
69	Small scale mechanical testing of irradiated materials. <i>Journal of Materials Research</i> , <b>2015</b> , 30, 1231-1245	5.5	54
68	Site Specific Microstructural Evolution of Thermo-mechanically Fatigued Copper Films. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , <b>2015</b> , 160, 235-239	0.6	5
67	Fabrication and thermo-mechanical behavior of ultra-fine porous copper. <i>Journal of Materials Science</i> , <b>2015</b> , 50, 634-643	4.3	31
66	Young's Modulus and Poisson's Ratio Characterization of Tungsten Thin Films Via Laser Ultrasound. <i>Materials Today: Proceedings</i> , <b>2015</b> , 2, 4289-4294	1.4	13
65	X-ray nanodiffraction reveals stress distribution across an indented multilayered CrN thin film. <i>Acta Materialia</i> , <b>2015</b> , 85, 24-31	8.4	48
64	Fracture mechanics of thin film systems on the sub-micron scale <b>2015</b> ,		1
63	Thermally Activated Deformation Behavior of ufg-Au: Environmental Issues During Long-Term and High-Temperature Nanoindentation Testing. <i>Jom</i> , <b>2015</b> , 67, 2934-2944	2.1	15
62	Thermally activated deformation processes in body-centered cubic Cr How microstructure influences strain-rate sensitivity. <i>Scripta Materialia</i> , <b>2015</b> , 106, 42-45	5.6	44
61	In Situ TEM Microcompression of Single and Bicrystalline Samples: Insights and Limitations. <i>Jom</i> , <b>2015</b> , 67, 1704-1712	2.1	28

60	Elevated temperature mechanical properties of novel ultra-fine grained CuNb composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2015</b> , 625, 296-302	5.3	20
59	Microstructure and mechanical properties of $Cu_xNb_{1-x}$ alloys prepared by ball milling and high pressure torsion compacting. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 630, 117-125	5.7	17
58	Internal and external stresses: In situ TEM compression of Cu bicrystals containing a twin boundary. <i>Scripta Materialia</i> , <b>2015</b> , 100, 94-97	5.6	35
57	Novel Methods for the Site Specific Preparation of Micromechanical Structures. <i>Praktische Metallographie/Practical Metallography</i> , <b>2015</b> , 52, 131-146	0.3	11
56	Reversible cyclic deformation mechanism of gold nanowires by twinning-detwinning transition evidenced from in situ TEM. <i>Nature Communications</i> , <b>2014</b> , 5, 3033	17.4	116
55	Evaluation of the residual stress distribution in thin films by means of the ion beam layer removal method <b>2014</b> ,		1
54	Microstructural evolution of a focused ion beam fabricated Mg nanopillar at high temperatures: Defect annihilation and sublimation. <i>Scripta Materialia</i> , <b>2014</b> , 86, 44-47	5.6	6
53	Critical assessment of the determination of residual stress profiles in thin films by means of the ion beam layer removal method. <i>Thin Solid Films</i> , <b>2014</b> , 564, 321-330	2.2	42
52	Extreme Ductility at the Nanoscale in Fe-based Alloys. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1876-1877	0.5	2
51	Influence of metastable retained austenite on macro and micromechanical properties of steel processed by the Q&P process. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 615, S163-S168	5.7	36
50	Influence of bulk pre-straining on the size effect in nickel compression pillars. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 559, 147-158	5.3	56
49	Issues to consider using nano indentation on shallow ion beam irradiated materials. <i>Journal of Nuclear Materials</i> , <b>2012</b> , 425, 136-139	3.3	139
48	In-Situ TEM Straining Experiments: Recent Progress in Stages and Small-Scale Mechanics <b>2012</b> , 227-254		1
47	Strength, Hardening, and Failure Observed by In Situ TEM Tensile Testing. <i>Advanced Engineering Materials</i> , <b>2012</b> , 14, 960-967	3.5	15
46	Advanced nanomechanics in the TEM: effects of thermal annealing on FIB prepared Cu samples. <i>Philosophical Magazine</i> , <b>2012</b> , 92, 3269-3289	1.6	41
45	Yield and plastic flow of soft metals in small volumes loaded in tension and flexure. <i>Philosophical Magazine</i> , <b>2012</b> , 92, 3199-3215	1.6	5
44	Application of small-scale testing for investigation of ion-beam-irradiated materials. <i>Journal of Materials Research</i> , <b>2012</b> , 27, 2724-2736	2.5	61
43	Quantitative Approaches for in situ SEM and TEM Deformation Studies. <i>Microscopy and Microanalysis</i> , <b>2012</b> , 18, 736-737	0.5	



42	Connecting in situ TEM mechanical testing with bulk properties of irradiated materials. <i>Microscopy and Microanalysis</i> , <b>2012</b> , 18, 1344-1345	0.5	
41	Sample Preparation by Metallography and Focused Ion Beam for Nanomechanical Testing. <i>Praktische Metallographie/Practical Metallography</i> , <b>2012</b> , 49, 343-355	0.3	21
40	Dislocation plasticity of Al film on polyimide investigated by cross-sectional in situ transmission electron microscopy straining. <i>Scripta Materialia</i> , <b>2011</b> , 65, 456-459	5.6	9
39	Source truncation and exhaustion: insights from quantitative in situ TEM tensile testing. <i>Nano Letters</i> , <b>2011</b> , 11, 3816-20	11.5	179
38	Decomposition pathways in age hardening of Ti-Al-N films. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 023515	2.5	131
37	In situ nanocompression testing of irradiated copper. <i>Nature Materials</i> , <b>2011</b> , 10, 608-13	27	231
36	Local and non-local behavior and coordinated buckling of CNT turfs. <i>Carbon</i> , <b>2011</b> , 49, 1430-1438	10.4	41
35	Source-controlled yield and hardening of Cu(1 0 0) studied by in situ transmission electron microscopy. <i>Acta Materialia</i> , <b>2011</b> , 59, 1328-1337	8.4	136
34	Work hardening in micropillar compression: In situ experiments and modeling. <i>Acta Materialia</i> , <b>2011</b> , 59, 3825-3840	8.4	73
33	Time-dependent contact behavior between diamond and a CNT turf. <i>Nanotechnology</i> , <b>2011</b> , 22, 295702	3.4	19
32	Towards predictive modeling of near-edge structures in electron energy-loss spectra of AlN-based ternary alloys. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	33
31	Effects of thermal annealing on the microstructure of sputtered Al <sub>2</sub> O <sub>3</sub> coatings. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2011</b> , 29, 041506	2.9	22
30	Dislocation storage in single slip-oriented Cu micro-tensile samples: new insights via X-ray microdiffraction. <i>Philosophical Magazine</i> , <b>2011</b> , 91, 1256-1264	1.6	37
29	Influence of Yttrium on the Thermal Stability of Ti-Al-N Thin Films. <i>Materials</i> , <b>2010</b> , 3, 1573-1592	3.5	34
28	Mitigating Focused Ion Beam Damage in Molybdenum Nanopillars by In Situ Annealing. <i>Microscopy and Microanalysis</i> , <b>2010</b> , 16, 1748-1749	0.5	
27	Cyclic response of copper single crystal micro-beams. <i>Scripta Materialia</i> , <b>2010</b> , 63, 500-503	5.6	76
26	Achieving the ideal strength in annealed molybdenum nanopillars. <i>Acta Materialia</i> , <b>2010</b> , 58, 5160-5167	8.4	94
25	Perylene-labeled silica nanoparticles: synthesis and characterization of three novel silica nanoparticle species for live-cell imaging. <i>Small</i> , <b>2010</b> , 6, 2427-35	11	30



24	Overview on established and novel FIB based miniaturized mechanical testing using in-situ SEM. <i>International Journal of Materials Research</i> , <b>2009</b> , 100, 1074-1087	0.5	47
23	Deformation twinning in Ni-Mn-Ga micropillars with 10M martensite. <i>Journal of Applied Physics</i> , <b>2009</b> , 106, 53906	2.5	15
22	On the importance of sample compliance in uniaxial microtesting. <i>Scripta Materialia</i> , <b>2009</b> , 60, 148-151	5.6	69
21	Micro-compression testing: A critical discussion of experimental constraints. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2009</b> , 505, 79-87	5.3	164
20	Revealing deformation mechanisms with nanoindentation. <i>Jom</i> , <b>2009</b> , 61, 14-23	2.1	18
19	In situ observation of dislocation nucleation and escape in a submicrometre aluminium single crystal. <i>Nature Materials</i> , <b>2009</b> , 8, 95-100	27	355
18	Can micro-compression testing provide stress-strain data for thin films?. <i>Thin Solid Films</i> , <b>2009</b> , 518, 1517-1521	15	15
17	Synthesis and biological evaluation of a bioresponsive and endosomolytic siRNA-polymer conjugate. <i>Molecular Pharmaceutics</i> , <b>2009</b> , 6, 752-62	5.6	147
16	Crystal rotation in Cu single crystal micropillars: In situ Laue and electron backscatter diffraction. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 071905	3.4	67
15	An exploratory study to determine applicability of nano-hardness and micro-compression measurements for yield stress estimation. <i>Journal of Nuclear Materials</i> , <b>2008</b> , 375, 135-143	3.3	84
14	Dislocation-induced crystal rotations in micro-compressed single crystal copper columns. <i>Journal of Materials Science</i> , <b>2008</b> , 43, 2503-2506	4.3	42
13	Testing Thin Films by Microcompression: Benefits and Limits. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , <b>2008</b> , 153, 257-262	0.6	4
12	A further step towards an understanding of size-dependent crystal plasticity: In situ tension experiments of miniaturized single-crystal copper samples. <i>Acta Materialia</i> , <b>2008</b> , 56, 580-592	8.4	396
11	In situ TEM straining of single crystal Au films on polyimide: Change of deformation mechanisms at the nanoscale. <i>Acta Materialia</i> , <b>2007</b> , 55, 5558-5571	8.4	101
10	FIB damage of Cu and possible consequences for miniaturized mechanical tests. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2007</b> , 459, 262-272	5.3	346
9	Fracture toughness investigations of tungsten alloys and SPD tungsten alloys. <i>Journal of Nuclear Materials</i> , <b>2007</b> , 367-370, 800-805	3.3	145
8	Influence of external and internal length scale on the flow stress of copper. <i>International Journal of Materials Research</i> , <b>2007</b> , 98, 1047-1053	0.5	24
7	Conventional TEM Investigation Of The FIB Damage In Copper. <i>Microscopy and Microanalysis</i> , <b>2007</b> , 13, 100-101	0.5	10

6	Size-Induced Transition from Perfect to Partial Dislocation Plasticity in Single Crystal Au Films on Polyimide. <i>Microscopy and Microanalysis</i> , <b>2007</b> , 13, 278-279	0.5	1
5	Determination of Mechanical Properties of Copper at the Micron Scale. <i>Advanced Engineering Materials</i> , <b>2006</b> , 8, 1119-1125	3.5	174
4	Microstructural evolution of the deformed volume beneath microindents in tungsten and copper. <i>Acta Materialia</i> , <b>2006</b> , 54, 2801-2811	8.4	71
3	In situ fracture observations of distinct interface types within a fully lamellar intermetallic TiAl alloy. <i>Journal of Materials Research</i> , 1-14	2.5	0
2	Nanoindentation study of macerals in coals from the Ukrainian Donets Basin. <i>Advances in Geosciences</i> , 45, 73-83		7
1	High-Throughput Micromechanical Testing Enabled by Optimized Direct Laser Writing. <i>Advanced Engineering Materials</i> , 2200288	3.5	