

# Gerhard Dehm

## List of Publications by Citations

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357 papers	9,298 citations	48 h-index	80 g-index
367 ext. papers	10,642 ext. citations	6 avg, IF	6.53 L-index

#	Paper	IF	Citations
357	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
356	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
355	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
354	Observation of giant diffusivity along dislocation cores. <i>Science</i> , <b>2008</b> , 319, 1646-9	33.3	275
353	Determination of Mechanical Properties of Copper at the Micron Scale. <i>Advanced Engineering Materials</i> , <b>2006</b> , 8, 1119-1125	3.5	174
352	Overview on micro- and nanomechanical testing: New insights in interface plasticity and fracture at small length scales. <i>Acta Materialia</i> , <b>2018</b> , 142, 248-282	8.4	170
351	Trends in the Development of New Mg Alloys. <i>Annual Review of Materials Research</i> , <b>2008</b> , 38, 505-533	12.8	169
350	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
349	A comparative micro-cantilever study of the mechanical behavior of silicon based passivation films. <i>Thin Solid Films</i> , <b>2009</b> , 518, 247-256	2.2	163
348	Importance and Challenges of Electrochemical in Situ Liquid Cell Electron Microscopy for Energy Conversion Research. <i>Accounts of Chemical Research</i> , <b>2016</b> , 49, 2015-22	24.3	136
347	Miniaturized single-crystalline fcc metals deformed in tension: New insights in size-dependent plasticity. <i>Progress in Materials Science</i> , <b>2009</b> , 54, 664-688	42.2	134
346	Cyclic deformation of polycrystalline Cu films. <i>Philosophical Magazine</i> , <b>2003</b> , 83, 693-710	1.6	110
345	Bidirectional Transformation Enables Hierarchical Nanolaminate Dual-Phase High-Entropy Alloys. <i>Advanced Materials</i> , <b>2018</b> , 30, e1804727	24	110
344	Interface controlled plasticity in metals: dispersion hardening and thin film deformation. <i>Progress in Materials Science</i> , <b>2001</b> , 46, 283-307	42.2	106
343	Can microscale fracture tests provide reliable fracture toughness values? A case study in silicon. <i>Journal of Materials Research</i> , <b>2015</b> , 30, 686-698	2.5	105
342	Grain refinement in TiAl-based alloys by solid state phase transformations. <i>Intermetallics</i> , <b>2006</b> , 14, 1380-1385	3.5	104
341	Differences in deformation behavior of bicrystalline Cu micropillars containing a twin boundary or a large-angle grain boundary. <i>Acta Materialia</i> , <b>2014</b> , 73, 240-250	8.4	101

340	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
339	Growth and structure of copper thin films deposited on (0001) sapphire by molecular beam epitaxy. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , <b>1995</b> , 71, 1111-1124		101
338	Superlattice effect for enhanced fracture toughness of hard coatings. <i>Scripta Materialia</i> , <b>2016</b> , 124, 67-70	9.6	98
337	Adhesion energies of Cr thin films on polyimide determined from buckling: Experiment and model. <i>Acta Materialia</i> , <b>2010</b> , 58, 5520-5531	8.4	97
336	Parallel glide: unexpected dislocation motion parallel to the substrate in ultrathin copper films. <i>Acta Materialia</i> , <b>2003</b> , 51, 4471-4485	8.4	93
335	TEM investigations of the structural evolution in a pearlitic steel deformed by high-pressure torsion. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2006</b> , 37, 1963-1968	2.3	92
334	Small-scale plasticity in thin Cu and Al films. <i>Microelectronic Engineering</i> , <b>2003</b> , 70, 412-424	2.5	89
333	Creep behaviour and related high temperature microstructural stability of Ti-6Al-4Nb sheet material. <i>Intermetallics</i> , <b>2005</b> , 13, 515-524	3.5	75
332	Work hardening in micropillar compression: In situ experiments and modeling. <i>Acta Materialia</i> , <b>2011</b> , 59, 3825-3840	8.4	73
331	Growth and microstructural stability of epitaxial Al films on (0001) Al <sub>2</sub> O <sub>3</sub> substrates. <i>Acta Materialia</i> , <b>2002</b> , 50, 5021-5032	8.4	73
330	On the importance of sample compliance in uniaxial microtesting. <i>Scripta Materialia</i> , <b>2009</b> , 60, 148-151	5.6	69
329	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
328	In situ TEM study of microplasticity and Bauschinger effect in nanocrystalline metals. <i>Acta Materialia</i> , <b>2010</b> , 58, 4772-4782	8.4	66
327	Fracture and Delamination of Chromium Thin Films on Polymer Substrates. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2010</b> , 41, 870-875	2.3	66
326	Observations of grain-boundary phase transformations in an elemental metal. <i>Nature</i> , <b>2020</b> , 579, 375-378	9.4	65
325	Mechanical Size-Effects in Miniaturized and Bulk Materials. <i>Advanced Engineering Materials</i> , <b>2006</b> , 8, 1033-1045	3.5	64
324	Quasi-crystalline grain-boundary phase in the magnesium die-cast alloy ZA85. <i>Scripta Materialia</i> , <b>2001</b> , 45, 517-524	5.6	64
323	Interface fracture properties of thin films studied by using the micro-cantilever deflection technique. <i>Surface and Coatings Technology</i> , <b>2009</b> , 204, 878-881	4.4	62

322	Electron-energy-loss spectroscopy studies of Cu-Al <sub>2</sub> O <sub>3</sub> interfaces grown by molecular beam epitaxy. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>1998</b> , 78, 439-465		62
321	Gold-Palladium Bimetallic Catalyst Stability: Consequences for Hydrogen Peroxide Selectivity. <i>ACS Catalysis</i> , <b>2017</b> , 7, 5699-5705	13.1	58
320	Nanometer-scaled lamellar microstructures in Ti-45Al-1.5Nb-(0; 0.5)C alloys and their influence on hardness. <i>Intermetallics</i> , <b>2008</b> , 16, 868-875	3.5	58
319	In situ transmission electron microscopy study of dislocations in a polycrystalline Cu thin film constrained by a substrate. <i>Applied Physics Letters</i> , <b>2000</b> , 77, 1126-1128	3.4	58
318	The influence of a brittle Cr interlayer on the deformation behavior of thin Cu films on flexible substrates: Experiment and model. <i>Acta Materialia</i> , <b>2015</b> , 89, 278-289	8.4	56
317	Yield stress influenced by the ratio of wire diameter to grain size & competition between the effects of specimen microstructure and dimension in micro-sized polycrystalline copper wires. <i>Philosophical Magazine</i> , <b>2012</b> , 92, 3243-3256	1.6	55
316	Texture transition in Cu thin films: Electron backscatter diffraction vs. X-ray diffraction. <i>Acta Materialia</i> , <b>2006</b> , 54, 3863-3870	8.4	55
315	Electron Energy-Loss Near-Edge Structure of Metal-Alumina Interfaces. <i>Microscopy Microanalysis Microstructures</i> , <b>1995</b> , 6, 19-31		54
314	In situ transmission electron microscopy study of thermal-stress-induced dislocations in a thin Cu film constrained by a Si substrate. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2001</b> , 309-310, 468-472	5.3	53
313	The influence of chromium addition on the toughness of Ni-Al <sub>2</sub> O <sub>3</sub> interfaces. <i>Acta Materialia</i> , <b>1997</b> , 45, 3503-3513	8.4	52
312	Strain-Induced Asymmetric Line Segregation at Faceted Si Grain Boundaries. <i>Physical Review Letters</i> , <b>2018</b> , 121, 015702	7.4	50
311	Growth and structure of internal Cu/Al <sub>2</sub> O <sub>3</sub> and Cu/Ti/Al <sub>2</sub> O <sub>3</sub> interfaces11Paper presented at Sympos. Synergistic Synthesis of Inorganic Materials, March 1996, Schloß Ringberg, Germany.. <i>Acta Materialia</i> , <b>1998</b> , 46, 759-772	8.4	49
310	Deformation-Induced Martensite: A New Paradigm for Exceptional Steels. <i>Advanced Materials</i> , <b>2016</b> , 28, 7753-7	24	48
309	Designed fully lamellar microstructures in a TiAl based alloy: adjustment and microstructural changes upon long-term isothermal exposure at 700 and 800°C. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2002</b> , 329-331, 124-129	5.3	48
308	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
307	Impact of instrumental constraints and imperfections on the dislocation structure in micron-sized Cu compression pillars. <i>Acta Materialia</i> , <b>2011</b> , 59, 5618-5626	8.4	44
306	Synthesis of analytical and high-resolution transmission electron microscopy to determine the interface structure of Cu/Al <sub>2</sub> O <sub>3</sub> . <i>Ultramicroscopy</i> , <b>1997</b> , 67, 207-217	3.1	44
305	Nanostructure and mechanical behavior of metastable Cu-Cr thin films grown by molecular beam epitaxy. <i>Acta Materialia</i> , <b>2015</b> , 83, 318-332	8.4	43

304	Unveiling the Re effect in Ni-based single crystal superalloys. <i>Nature Communications</i> , <b>2020</b> , 11, 389	17.4	42
303	Microscale Fracture Behavior of Single Crystal Silicon Beams at Elevated Temperatures. <i>Nano Letters</i> , <b>2016</b> , 16, 7597-7603	11.5	42
302	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
301	Microstructure evolution and mechanical properties of an intermetallic Ti-43.5Al-4Nb-1Mo-0.1B alloy after ageing below the eutectoid temperature. <i>International Journal of Materials Research</i> , <b>2011</b> , 102, 703-708	0.5	41
300	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
299	Retrieval of crystal defect structures from HREM images by simulated evolution II. Experimental image evaluation. <i>Ultramicroscopy</i> , <b>1996</b> , 65, 217-228	3.1	41
298	Size effect in bi-crystalline micropillars with a penetrable high angle grain boundary. <i>Acta Materialia</i> , <b>2017</b> , 129, 312-320	8.4	40
297	Influence of impurity elements on the nucleation and growth of Si in high purity melt-spun AlSi-based alloys. <i>Philosophical Magazine</i> , <b>2012</b> , 92, 3789-3805	1.6	40
296	Microstructural stability and creep behavior of a lamellar $\beta$ -TiAl based alloy with extremely fine lamellar spacing. <i>Intermetallics</i> , <b>2002</b> , 10, 459-466	3.5	40
295	Dislocation-twin boundary interaction in small scale Cu bi-crystals loaded in different crystallographic directions. <i>Acta Materialia</i> , <b>2017</b> , 129, 91-97	8.4	39
294	Microstructural size effects on the hardness of nanocrystalline TiN/amorphous-SiNx coatings prepared by magnetron sputtering. <i>Thin Solid Films</i> , <b>2005</b> , 473, 114-122	2.2	39
293	Microstructure and tribological properties of Ni-based claddings on Cu substrates. <i>Wear</i> , <b>1999</b> , 225-229, 18-26	3.5	39
292	Precipitation processes in a Mg <sub>75</sub> Zn <sub>25</sub> Sn alloy studied by TEM and SAXS. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2008</b> , 494, 158-165	5.3	38
291	Effect of heat-treatments and hot-isostatic pressing on phase transformation and microstructure in a $\gamma$ /B2 containing $\beta$ -TiAl based alloy. <i>Scripta Materialia</i> , <b>2000</b> , 42, 1065-1070	5.6	38
290	Dislocation-induced breakthrough of strength and ductility trade-off in a non-equiatomic high-entropy alloy. <i>Acta Materialia</i> , <b>2020</b> , 185, 45-54	8.4	38
289	On the segregation of Re at dislocations in the $\gamma$ phase of Ni-based single crystal superalloys. <i>Materialia</i> , <b>2018</b> , 4, 109-114	3.2	38
288	Microstructural and mechanical characterization of an equiatomic YGdTbDyHo high entropy alloy with hexagonal close-packed structure. <i>Acta Materialia</i> , <b>2018</b> , 156, 86-96	8.4	37
287	Kinetics and driving forces of abnormal grain growth in thin Cu films. <i>Acta Materialia</i> , <b>2012</b> , 60, 2397-2406	6.4	37

286	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
285	Mechanical size effects in a single crystalline equiatomic FeCrCoMnNi high entropy alloy. <i>Scripta Materialia</i> , <b>2017</b> , 129, 52-55	5.6	36
284	Laser cladding of Co-based hardfacing on Cu substrate. <i>Journal of Materials Science</i> , <b>2002</b> , 37, 5345-5353	4.3	36
283	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
282	Size-independent stresses in Al thin films thermally strained down to 100°C. <i>Acta Materialia</i> , <b>2007</b> , 55, 1941-1946	8.4	35
281	Kinetics and crystallization path of a Fe-based metallic glass alloy. <i>Acta Materialia</i> , <b>2017</b> , 127, 341-350	8.4	33
280	On the influence of microcantilever pre-crack geometries on the apparent fracture toughness of brittle materials. <i>Acta Materialia</i> , <b>2017</b> , 136, 281-287	8.4	33
279	Channel cracking of ENiAl thin films on Si substrates. <i>Acta Materialia</i> , <b>2004</b> , 52, 2325-2336	8.4	33
278	On the origin of acoustic emission during room temperature compressive deformation of a TiAl based alloy. <i>Intermetallics</i> , <b>2000</b> , 8, 823-830	3.5	32
277	An elevated temperature study of a Ti adhesion layer on polyimide. <i>Thin Solid Films</i> , <b>2013</b> , 531, 354-361	2.2	31
276	Expected and unexpected plastic behavior at the micron scale: An in situ Laue tensile study. <i>Acta Materialia</i> , <b>2012</b> , 60, 1252-1258	8.4	31
275	Iron Aluminides. <i>Annual Review of Materials Research</i> , <b>2019</b> , 49, 297-326	12.8	30
274	Deformation mechanisms in micron-sized PST TiAl compression samples: Experiment and model. <i>Acta Materialia</i> , <b>2011</b> , 59, 3410-3421	8.4	30
273	Visualizing the Behavior of Dislocations: Seeing is Believing. <i>MRS Bulletin</i> , <b>2008</b> , 33, 122-131	3.2	30
272	A quantitative study of the hardness of a superhard nanocrystalline titanium nitride/silicon nitride coating. <i>Scripta Materialia</i> , <b>2005</b> , 52, 1269-1274	5.6	30
271	Dislocation dynamics in sub-micron confinement: recent progress in Cu thin film plasticity. <i>International Journal of Materials Research</i> , <b>2002</b> , 93, 383-391		30
270	Tensile behaviour of micro-sized copper wires studied using a novel fibre tensile module. <i>International Journal of Materials Research</i> , <b>2008</b> , 99, 716-724	0.5	29
269	Bonding at copper/alumina interfaces established by different surface treatments: a critical review. <i>Journal of Materials Science</i> , <b>2006</b> , 41, 5161-5168	4.3	29

268	In situ TEM observation of dislocation motion in thermally strained Al nanowires. <i>Acta Materialia</i> , <b>2002</b> , 50, 5033-5047	8.4	29
267	Dislocation interaction and twinning-induced plasticity in face-centered cubic Fe-Mn-C micro-pillars. <i>Acta Materialia</i> , <b>2017</b> , 132, 162-173	8.4	28
266	Microcompression and cyclic deformation behaviors of coaxial copper bicrystals with a single twin boundary. <i>Scripta Materialia</i> , <b>2013</b> , 69, 199-202	5.6	28
265	Stress intensity factor dependence on anisotropy and geometry during micro-fracture experiments. <i>Scripta Materialia</i> , <b>2017</b> , 127, 76-78	5.6	28
264	In Situ TEM Microcompression of Single and Bicrystalline Samples: Insights and Limitations. <i>Jom</i> , <b>2015</b> , 67, 1704-1712	2.1	28
263	Effects of thickness on the characteristic length scale of dislocation plasticity in Ag thin films. <i>Acta Materialia</i> , <b>2001</b> , 49, 3597-3607	8.4	28
262	Dislocation slip transmission through a coherent $\{111\}$ copper twin boundary: Strain rate sensitivity, activation volume and strength distribution function. <i>Acta Materialia</i> , <b>2018</b> , 161, 412-419	8.4	28
261	Microstructural evolution and solid state dewetting of epitaxial Al thin films on sapphire ( $\text{Al}_2\text{O}_3$ ). <i>Acta Materialia</i> , <b>2017</b> , 133, 356-366	8.4	27
260	Importance of dislocation pile-ups on the mechanical properties and the Bauschinger effect in microcantilevers. <i>Journal of Materials Research</i> , <b>2015</b> , 30, 791-797	2.5	27
259	Temperature dependent transition of intragranular plastic to intergranular brittle failure in electrodeposited Cu micro-tensile samples. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2014</b> , 618, 398-405	5.3	27
258	Stress, Sheet Resistance, and Microstructure Evolution of Electroplated Cu Films During Self-Annealing. <i>IEEE Transactions on Device and Materials Reliability</i> , <b>2010</b> , 10, 47-54	1.6	27
257	Experimental studies on epitaxially grown TiN and VN films. <i>Thin Solid Films</i> , <b>2007</b> , 516, 369-373	2.2	27
256	Interfacial nanophases stabilize nanotwins in high-entropy alloys. <i>Acta Materialia</i> , <b>2020</b> , 185, 218-232	8.4	27
255	Oxygen-mediated deformation and grain refinement in Cu-Fe nanocrystalline alloys. <i>Acta Materialia</i> , <b>2019</b> , 166, 281-293	8.4	27
254	Segregation-Induced Nanofaceting Transition at an Asymmetric Tilt Grain Boundary in Copper. <i>Physical Review Letters</i> , <b>2018</b> , 121, 255502	7.4	27
253	Formation of eta carbide in ferrous martensite by room temperature aging. <i>Acta Materialia</i> , <b>2018</b> , 158, 297-312	8.4	26
252	Damage evolution during cyclic tension-tension loading of micron-sized Cu lines. <i>Acta Materialia</i> , <b>2014</b> , 67, 297-307	8.4	26
251	Cyclic bending experiments on free-standing Cu micron lines observed by electron backscatter diffraction. <i>Acta Materialia</i> , <b>2015</b> , 83, 460-469	8.4	26



250	Investigation of the fatigue behavior of Al thin films with different microstructure. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2010</b> , 527, 7757-7763	5.3	26
249	Equilibrium Amorphous Silicon-Calcium-Oxygen Films at Interfaces in Copper-Alumina Composites Prepared by Melt Infiltration. <i>Journal of the American Ceramic Society</i> , <b>2001</b> , 84, 623-630	3.8	26
248	Fracture toughness of Mo <sub>2</sub> BC thin films: Intrinsic toughness versus system toughening. <i>Materials and Design</i> , <b>2018</b> , 154, 20-27	8.1	25
247	Dynamic observation of Al thin films plastically strained in a TEM. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2001</b> , 309-310, 463-467	5.3	25
246	Comparing small scale plasticity of copper-chromium nanolayered and alloyed thin films at elevated temperatures. <i>Acta Materialia</i> , <b>2015</b> , 93, 175-186	8.4	24
245	Are Mo <sub>2</sub> BC nanocrystalline coatings damage resistant? Insights from comparative tension experiments. <i>Surface and Coatings Technology</i> , <b>2016</b> , 289, 213-218	4.4	24
244	In Situ µLaue: Instrumental Setup for the Deformation of Micron Sized Samples. <i>Advanced Engineering Materials</i> , <b>2011</b> , 13, 837-844	3.5	24
243	Structural characterization of a Cu/MgO(001) interface using CS-corrected HRTEM. <i>Thin Solid Films</i> , <b>2010</b> , 519, 1662-1667	2.2	24
242	Strain compensation by twinning in Au thin films: Experiment and model. <i>Acta Materialia</i> , <b>2007</b> , 55, 6659-6665	6.65	24
241	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
240	In-situ TEM straining experiments of Al films on polyimide using a novel FIB design for specimen preparation. <i>Journal of Materials Science</i> , <b>2006</b> , 41, 4484-4489	4.3	24
239	Formation of dislocation networks in a coherent Cu B(1 1 1) twin boundary. <i>Scripta Materialia</i> , <b>2015</b> , 102, 71-74	5.6	23
238	Investigation of reversible plasticity in a micron-sized, single crystalline copper bending beam by X-ray µLaue diffraction. <i>Philosophical Magazine</i> , <b>2012</b> , 92, 3231-3242	1.6	23
237	The effect of film thickness variations in periodic cracking: Analysis and experiments. <i>Surface and Coatings Technology</i> , <b>2011</b> , 206, 1830-1836	4.4	23
236	Novel temperature dependent tensile test of freestanding copper thin film structures. <i>Review of Scientific Instruments</i> , <b>2012</b> , 83, 064702	1.7	23
235	Measurement of coherency states of metal/ceramic interfaces by HREM image processing. <i>Physica Status Solidi A</i> , <b>1995</b> , 150, 77-87		23
234	Crystal-Glass High-Entropy Nanocomposites with Near Theoretical Compressive Strength and Large Deformability. <i>Advanced Materials</i> , <b>2020</b> , 32, e2002619	24	22
233	Influence of inclined twin boundaries on the deformation behavior of Cu micropillars. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2015</b> , 642, 65-70	5.3	21



232	Study of nanometer-scaled lamellar microstructure in a Ti <sub>45</sub> Al <sub>55</sub> Nb alloy [Experiments and modeling. <i>Intermetallics</i> , <b>2010</b> , 18, 509-517	3.5	21
231	Stress-controlled fatigue behaviour of micro-sized polycrystalline copper wires. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2009</b> , 515, 71-78	5.3	21
230	Micron-sized fracture experiments on amorphous SiO <sub>x</sub> films and SiO <sub>x</sub> /SiN <sub>x</sub> multi-layers. <i>Thin Solid Films</i> , <b>2010</b> , 518, 5796-5801	2.2	21
229	A microindentation method for estimating interfacial shear strength and its use in studying the influence of titanium transition layers on the interface strength of epitaxial copper films on sapphire. <i>Acta Materialia</i> , <b>1997</b> , 45, 489-499	8.4	21
228	Transmission electron microscopy of fluorapatite-gelatin composite particles prepared using focused ion beam milling. <i>Journal of Microscopy</i> , <b>2004</b> , 214, 208-12	1.9	21
227	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
226	Electronic hybridisation implications for the damage-tolerance of thin film metallic glasses. <i>Scientific Reports</i> , <b>2016</b> , 6, 36556	4.9	21
225	On the nature of twin boundary-associated strengthening in Fe-Mn-C steel. <i>Scripta Materialia</i> , <b>2018</b> , 156, 27-31	5.6	20
224	Advances in in situ nanomechanical testing. <i>MRS Bulletin</i> , <b>2019</b> , 44, 438-442	3.2	19
223	Transition from shear to stress-assisted diffusion of copper-chromium nanolayered thin films at elevated temperatures. <i>Acta Materialia</i> , <b>2015</b> , 100, 73-80	8.4	19
222	Fracture toughness of intermetallic Cu <sub>6</sub> Sn <sub>5</sub> in lead-free solder microelectronics. <i>Scripta Materialia</i> , <b>2016</b> , 123, 38-41	5.6	19
221	Influence of the indenter tip geometry and environment on the indentation modulus of enamel. <i>Journal of Materials Research</i> , <b>2009</b> , 24, 616-625	2.5	19
220	Aggregation control of Ru and Ir nanoparticles by tunable aryl alkyl imidazolium ionic liquids. <i>Nanoscale</i> , <b>2019</b> , 11, 4073-4082	7.7	19
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218	The peculiarity of the metal-ceramic interface. <i>Scientific Reports</i> , <b>2015</b> , 5, 11460	4.9	18
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