Mathias Gken

List of Publications by Year in Descending Order

289 papers	9,407 citations	53 h-index	85 g-index
302 ext. papers	10,979 ext. citations	4.4 avg, IF	6.41 L-index

#	Paper	IF	Citations
289	Resistance-curve envelopes for dental lithium disilicate glass-ceramics. *Journal of the European Ceramic Society*, **2022**, 42, 2516-2522	6	1
288	Quantification of the temperature-dependent evolution of defect structures in a CoNi-base superalloy. *Acta Materialia*, **2022**, 227, 117702	8.4	2
287	Nanostructuring of Nb-Si-Cr Alloys by Electron Beam Melting to Improve the Mechanical Properties and the Oxidation Behavior. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2022**, 53, 240	2.3	
286	Creep properties and deformation mechanisms of single-crystalline γ′-strengthened superalloys in dependence of the Co/Ni ratio. *Philosophical Magazine*, **2022**, 102, 718-744	1.6	0
285	Influence of Nb, Ta and Zr on the Interdiffusion Coefficients and Solid Solution Strengthening of β-NiAl Single Phase Alloys. *Metals*, **2022**, 12, 752	2.3	
284	On the influence of Al-concentration on the fracture toughness of NiAl: microcantilever fracture tests and atomistic simulations. *Acta Materialia*, **2022**, 117996	8.4	0
283	The grain boundary hardness in austenitic stainless steels studied by nanoindentations. *International Journal of Materials Research*, **2022**, 95, 492-498	0.5	
282	Solid Solution Strengthening of Mo, Re, Ta and W in Ni during High-Temperature Creep. *Metals*, **2021**, 11, 1909	2.3	0
281	Understanding the High Creep Resistance of MRI 230D Magnesium Alloy through Nanoindentation and Atom Probe Tomography. *Metals*, **2021**, 11, 1727	2.3	
280	Microcantilever Fracture Tests on Eutectic NiAl-Cr(Mo) In Situ Composites. *Advanced Engineering Materials*, **2021**, 23, 2001464	3.5	3
279	Hierarchical and heterogeneous multiphase metallic nanomaterials and laminates. *MRS Bulletin*, **2021**, 46, 236-243	3.2	2
278	Ultrafine-Grained Laminated Metal Composites: A New Material Class for Tailoring Cyclically Stressed Components. *Advanced Engineering Materials*, **2021**, 23, 2100070	3.5	2
277	Influence of small amounts of Si and Cr on the high temperature oxidation behavior of novel cobalt base superalloys. *Corrosion Science*, **2021**, 184, 109388	6.8	5
276	Temperature-Dependent Dynamic Strain Aging in Selective Laser Melted 316L. *Advanced Engineering Materials*, **2021**, 23, 2001501	3.5	0
275	Design of a Co-Al-W-Ta Alloy Series with Varying γ′ Volume Fraction and Their Thermophysical Properties. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2021**, 52, 3931-3944	2.3	0
274	Understanding raft formation and precipitate shearing during double minimum creep in a γ′-strengthened single crystalline Co-base superalloy. *Philosophical Magazine*, **2021**, 101, 326-353	1.6	1
273	The temperature dependent lattice misfit of rhenium and ruthenium containing nickel-base superalloys – Experiment and modelling. *Materials and Design*, **2021**, 198, 109362	8.1	11

272	Breakdown of the superplastic deformation behavior of heterogeneous nanomaterials at small length scales. *Materials Research Letters*, **2021**, 9, 41-49	7.4	2
271	Applicability of focused Ion beam (FIB) milling with gallium, neon, and xenon to the fracture toughness characterization of gold thin films. *Journal of Materials Research*, **2021**, 36, 2505-2514	2.5	6
270	A scale-bridging study of the influence of TCP phases on the mechanical properties of an additive manufactured Ni-base superalloy combining microcompression testing, X-ray nanotomography and TEM. *Microscopy and Microanalysis*, **2021**, 27, 938-942	0.5	
269	Yielding behavior of a single-crystalline □-strengthened Co-Ti-Cr superalloy. *Scripta Materialia*, **2021**, 200, 113928	5.6	4
268	Grain boundary mediated plasticity: A blessing for the ductility of metallic thin films?. *Acta Materialia*, **2021**, 215, 117079	8.4	3
267	Understanding creep of a single-crystalline Co-Al-W-Ta superalloy by studying the deformation mechanism, segregation tendency and stacking fault energy. *Acta Materialia*, **2021**, 214, 117019	8.4	4
266	Breaking the continuity of the Al2O3 oxide scale by additions of Cr in Co-Al-W-based superalloys. *Corrosion Science*, **2021**, 189, 109594	6.8	1
265	The Importance of Diffusivity and Partitioning Behavior of Solid Solution Strengthening Elements for the High Temperature Creep Strength of Ni-Base Superalloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 6195-6206	2.3	12
264	Optimization of the heat treatment of additively manufactured Ni-base superalloy IN718. *International Journal of Minerals, Metallurgy and Materials*, **2020**, 27, 640-648	3.1	17
263	Combining Experiments and Atom Probe Tomography-Informed Simulations on □ Precipitation Strengthening in the Polycrystalline Ni-Base Superalloy A718Plus. *Advanced Engineering Materials*, **2020**, 22, 2000149	3.5	8
262	Revealing the local fatigue behavior of bimodal copper laminates by micropillar fatigue tests. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2020**, 788, 139502	5.3	3
261	On the Precipitation-Strengthening Contribution of the Ta-Containing Co3(Al,W)-Phase to the Creep Properties of □□ Cobalt-Base Superalloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 1567-1574	2.3	12
260	Enhancing the High-Temperature Strength of a Co-Base Superalloy by Optimizing the □□ Microstructure. *Metals*, **2020**, 10, 321	2.3	3
259	Castability and Recrystallization Behavior of □-Strengthened Co-Base Superalloys. *Minerals, Metals and Materials Series*, **2020**, 901-908	0.3	0
258	Local Mechanical Properties at the Dendrite Scale of Ni-Based Superalloys Studied by Advanced High Temperature Indentation Creep and Micropillar Compression Tests. *Minerals, Metals and Materials Series*, **2020**, 273-281	0.3	
257	The Effect of Alloying on the Thermophysical and Mechanical Properties of Co□Ti□r-Based Superalloys. *Minerals, Metals and Materials Series*, **2020**, 909-919	0.3	1
256	Deformation mechanisms and strain rate sensitivity of bimodal and ultrafine-grained copper. *Acta Materialia*, **2020**, 186, 363-373	8.4	18
255	The influence of near service environmental conditions on the corrosion and LCF behaviour of a beta-stabilized □TiAl alloy. *Corrosion Science*, **2020**, 175, 108885	6.8	1

254	Nanoscaled eutectic NiAl-(Cr,Mo) composites with exceptional mechanical properties processed by electron beam melting. *Scientific Reports*, **2020**, 10, 15153	4.9	6
253	Hetero-deformation induced (HDI) hardening does not increase linearly with strain gradient. *Scripta Materialia*, **2020**, 174, 19-23	5.6	55
252	The Role of Interfaces on the Deformation Mechanisms in Bimodal Al Laminates Produced by Accumulative Roll Bonding. *Advanced Engineering Materials*, **2020**, 22, 2000145	3.5	6
251	Determination of the true projected contact area by in situ indentation testing. *Journal of Materials Research*, **2019**, 34, 2859-2868	2.5	3
250	Microstructural dependence of the fracture toughness of metallic thin films: A bulge test and atomistic simulation study on single-crystalline and polycrystalline silver films. *Journal of Materials Research*, **2019**, 34, 3483-3494	2.5	3
249	Microtensile creep testing of freestanding MCrAlY bond coats. *Journal of Materials Research*, **2019**, 34, 2643-2652	2.5	1
248	Impact of Mn on the precipitate structure and creep resistance of Ca containing magnesium alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2019**, 761, 137964	5.3	5
247	In-situ observation of dislocation dynamics near heterostructured interfaces. *Materials Research Letters*, **2019**, 7, 376-382	7.4	45
246	Fracture resistance of yttria stabilized zirconia manufactured from stabilizer-coated nanopowder by micro cantilever bending tests. *Journal of the European Ceramic Society*, **2019**, 39, 3830-3836	6	2
245	Influence of Co to Ni ratio in γ′-strengthened model alloys on oxidation resistance and the efficacy of the halogen effect at 900 °C. *Corrosion Science*, **2019**, 156, 84-95	6.8	27
244	In situ X-ray tomography investigation of the crack formation in an intermetallic beta-stabilized TiAl-alloy during a stepwise tensile loading. *International Journal of Fatigue*, **2019**, 124, 138-148	5	11
243	A review of experimental approaches to fracture toughness evaluation at the micro-scale. *Materials and Design*, **2019**, 173, 107762	8.1	99
242	High Lightweight Potential of Ultrafine-Grained Aluminum/Steel Laminated Metal Composites Produced by Accumulative Roll Bonding. *Advanced Engineering Materials*, **2019**, 21, 1800286	3.5	13
241	New flat-punch indentation creep testing approach for characterizing the local creep properties at high temperatures. *Materials and Design*, **2019**, 183, 108090	8.1	8
240	Influence of Different Annealing Atmospheres on the Mechanical Properties of Freestanding MCrAlY Bond Coats Investigated by Micro-Tensile Creep Tests. *Metals*, **2019**, 9, 692	2.3	2
239	Low temperature deformation of MoSi2 and the effect of Ta, Nb and Al as alloying elements. *Acta Materialia*, **2019**, 181, 385-398	8.4	11
238	Fracture Toughness Evaluation of a Cracked Au Thin Film by Applying a Finite Element Analysis and Bulge Test. *Key Engineering Materials*, **2019**, 827, 196-202	0.4	2
237	Superior Mechanical Properties of Aluminum–Titanium Laminates in Terms of Local Hardness and Strength. *Advanced Engineering Materials*, **2019**, 21, 1800546	3.5	4

236	Tension/Compression asymmetry of a creep deformed single crystal Co-base superalloy. *Acta Materialia*, **2019**, 166, 597-610	8.4	26
235	The influence of niobium, tantalum and zirconium on the microstructure and creep strength of fully lamellar titanium aluminides. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 744, 46-53	5.3	15
234	Optimisation of interface formation by shear inclination: Example of aluminium-copper hybrid produced by ECAP with back-pressure. *Materials and Design*, **2018**, 146, 142-151	8.1	8
233	The grain boundary pinning effect of the phase in an advanced polycrystalline Co-base superalloy. *Journal of Alloys and Compounds*, **2018**, 753, 333-342	5.7	17
232	On the grain boundary strengthening effect of boron in Cobalt-base superalloys. *Acta Materialia*, **2018**, 145, 247-254	8.4	53
231	Interface affected zone for optimal strength and ductility in heterogeneous laminate. *Materials Today*, **2018**, 21, 713-719	21.8	173
230	Dynamic mechanical characterization of poly(glycerol sebacate)/poly(butylene succinate-butylene dilinoleate) blends for cardiac tissue engineering by flat punch nanoindentation. *Materials Letters*, **2018**, 221, 115-118	3.3	8
229	Double minimum creep in the rafting regime of a single-crystal Co-base superalloy. *Scripta Materialia*, **2018**, 142, 129-132	5.6	39
228	The Effect of a Grain Boundary Pinning B2 Phase on Polycrystalline Co-Based Superalloys with Reduced Density. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2018**, 49, 4070-4078	2.3	9
227	Superplastic deformation behavior of Zn-22% Al alloy investigated by nanoindentation at elevated temperatures. *Materials and Design*, **2018**, 153, 71-79	8.1	12
226	Microstructure and compression strength of Co-based superalloys hardened by and carbide precipitation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 734, 437-444	5.3	11
225	Scaling of the fracture toughness of freestanding metallic thin films with the yield strength. *Materials Research Letters*, **2018**, 6, 607-612	7.4	7
224	Influence of stacking fault energy and dislocation character on slip transfer at coherent twin boundaries studied by micropillar compression. *Acta Materialia*, **2018**, 154, 261-272	8.4	25
223	Thermophysical and Mechanical Properties of Advanced Single Crystalline Co-base Superalloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2018**, 49, 4099-4109	2.3	38
222	High-temperature corrosion of Inconel Alloy 718, Haynes 282 Alloy and CoWAlloy1&2 in supercritical ammonia/ammonium chloride solution. *Journal of Crystal Growth*, **2018**, 498, 289-300	1.6	6
221	Enhanced monotonic and cyclic mechanical properties of ultrafine-grained laminated metal composites with strong and stiff interlayers. *International Journal of Fatigue*, **2018**, 116, 379-387	5	6
220	Characterization of and phases in 2nd and 4th generation single crystal nickel-base superalloys. *Metals and Materials International*, **2017**, 23, 126-131	2.4	10
219	Crack nucleation and elastic / plastic deformation of TiAl alloys investigated by in-situ loaded atomic force microscopy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 689, 11-16	5.3	17

218	A novel type of Co□Ti□Cr-base □ superalloys with low mass density. *Acta Materialia*, **2017**, 135, 244-251	8.4	70
217	High-performance direct conversion X-ray detectors based on sintered hybrid lead triiodide perovskite wafers. *Nature Photonics*, **2017**, 11, 436-440	33.9	289
216	On the temperature dependent strengthening of nickel by transition metal solutes. *Acta Materialia*, **2017**, 137, 54-63	8.4	15
215	Determination of the strain-rate sensitivity of ultrafine-grained materials by spherical nanoindentation. *Journal of Materials Research*, **2017**, 32, 1466-1473	2.5	19
214	Understanding the extremely low fracture toughness of freestanding gold thin films by in-situ bulge testing in an AFM. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 691, 218-225	5.3	28
213	Influencing hardness and wear during the dynamic tempered microinjection molding process by considering isothermal holding time. *Polymer Engineering and Science*, **2017**, 57, 121-128	2.3	
212	Micromechanical characterization of laser consolidated nanoparticle ITO layers. *Thin Solid Films*, **2017**, 642, 214-218	2.2	1
211	Optimized layer architecture for an extended fatigue life of ultrafine-grained AA1050/AA5005 laminated metal composites. *IOP Conference Series: Materials Science and Engineering*, **2017**, 194, 012036	0.4	10
210	High temperature properties and fatigue strength of novel wrought □ Co-base superalloys. *Journal of Materials Research*, **2017**, 32, 4475-4482	2.5	23
209	Ex and in situ investigations on the role of persistent slip bands and grain boundaries in fatigue crack initiation. *Journal of Materials Research*, **2017**, 32, 4276-4286	2.5	11
208	Size-dependent fracture toughness of tungsten. *Acta Materialia*, **2017**, 138, 198-211	8.4	39
207	Layer architecture and fatigue life of ultrafine-grained laminated metal composites consisting of different aluminum alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 702, 406-413	5.3	10
206	Influence of rhenium on □-strengthened cobalt-base superalloys. *Journal of Materials Research*, **2017**, 32, 2551-2559	2.5	15
205	Plane-strain bulge testing of thin films under compressive residual stresses. *Surface and Coatings Technology*, **2017**, 327, 167-173	4.4	5
204	Isolating the effect of residual stresses on coating wear by a mechanical stress relaxation technique. *Thin Solid Films*, **2017**, 638, 159-166	2.2	13
203	Morphology evolution of Ti 3 AlC carbide precipitates in high Nb containing TiAl alloys. *Acta Materialia*, **2017**, 137, 36-44	8.4	21
202	Segregation assisted microtwinning during creep of a polycrystalline L12-hardened Co-base superalloy. *Acta Materialia*, **2017**, 123, 295-304	8.4	53
201	Investigation of the deformation behavior of aluminum micropillars produced by focused ion beam machining using Ga and Xe ions. *Scripta Materialia*, **2017**, 127, 191-194	5.6	40

200	Enhanced fatigue lives in AA1050A/AA5005 laminated metal composites produced by accumulative roll bonding. *Acta Materialia*, **2016**, 120, 150-158	8.4	45
199	Improved creep strength of nickel-base superalloys by optimized ☐ partitioning behavior of solid solution strengthening elements. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 676, 411-420	5.3	38
198	Fracture toughness evaluation of NiAl single crystals by microcantilevers☐ new continuous J-integral method. *Journal of Materials Research*, **2016**, 31, 3786-3794	2.5	31
197	A flexible method for the preparation of thin film samples for in situ TEM characterization combining shadow-FIB milling and electron-beam-assisted etching. *Ultramicroscopy*, **2016**, 171, 82-88	3.1	13
196	Superior creep strength of a nickel-based superalloy produced by selective laser melting. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 674, 299-307	5.3	116
195	The Role of Local Chemical Composition for TCP Phase Precipitation in Ni-Base and Co-Base Superalloys **2016**, 89-96		1
194	Mechanical properties of copper/bronze laminates: Role of interfaces. *Acta Materialia*, **2016**, 116, 43-52	8.4	280
193	Tailored heat treated accumulative roll bonded aluminum blanks: failure under bending stresses. *Production Engineering*, **2016**, 10, 399-407	1.9	1
192	Instantaneous healing of micro-fractures during coseismic slip: Evidence from microstructure and Ti in quartz geochemistry within an exhumed pseudotachylyte-bearing fault in tonalite. *Lithos*, **2016**, 254-255, 84-93	2.9	7
191	Reliability model of LED package regarding the fatigue behavior of gold wires **2016**,		1
190	Diffusion of solutes in fcc Cobalt investigated by diffusion couples and first principles kinetic Monte Carlo. *Acta Materialia*, **2016**, 106, 304-312	8.4	90
189	Global and local strain rate sensitivity of bimodal Al-laminates produced by accumulative roll bonding. *Acta Materialia*, **2016**, 103, 643-650	8.4	24
188	Microstructure, Lattice Misfit, and High-Temperature Strength of ☐-Strengthened Co-Al-W-Ge Model Superalloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2016**, 47, 2141-2149	2.3	15
187	Mechanical characterization of metallic thin films by bulge and scratch testing. *Surface and Coatings Technology*, **2016**, 289, 69-74	4.4	22
186	Intermediate Co/Ni-base model superalloys ☐Thermophysical properties, creep and oxidation. *Scripta Materialia*, **2016**, 112, 83-86	5.6	55
185	Microstructure and Mechanical Properties of Accumulative Roll-Bonded AA1050A/AA5005 Laminated Metal Composites. *Metals*, **2016**, 6, 56	2.3	26
184	Elemental partitioning, lattice misfit and creep behaviour of Cr containing ☐strengthened Co base superalloys. *Materials Science and Technology*, **2016**, 32, 220-225	1.5	53
183	Local mechanical properties of the (☐+☐) composite in multiphase titanium aluminides studied with nanoindentation at room and high temperatures. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 665, 135-140	5.3	10

182	On the transition from plastic deformation to crack initiation in the high- and very high-cycle fatigue regimes in plain carbon steels. *International Journal of Fatigue*, **2016**, 93, 281-291	5	13
181	An improved method for point deflection measurements on rectangular membranes. *Materials and Design*, **2016**, 109, 485-491	8.1	8
180	Effect of elastic anisotropy on strain relief and residual stress determination in cubic systems by FIB-DIC experiments. *Materials and Design*, **2016**, 112, 505-511	8.1	9
179	Secondary Al-Si-Mg High-pressure Die Casting Alloys with Enhanced Ductility. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 1035-1045	2.3	22
178	Microsegregation and precipitates of an as-cast Co-based superalloy□microstructural characterization and phase stability modelling. *Journal of Materials Science*, **2015**, 50, 6329-6338	4.3	38
177	Isothermal aging of a □-strengthened Co□Al□W alloy coated with vacuum plasma-sprayed MCrAlY bond coats. *Surface and Coatings Technology*, **2015**, 276, 360-367	4.4	7
176	Silicon nitride and intrinsic amorphous silicon double antireflection coatings for thin-film solar cells on foreign substrates. *Thin Solid Films*, **2015**, 583, 25-33	2.2	5
175	Nanoindentation studies of the mechanical properties of the □phase in a creep deformed Re containing nickel-based superalloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 634, 202-208	5.3	52
174	Mechanical properties of ultrafine-grained AlZnMg(Cu)-alloys AA7020 and AA7075 processed by accumulative roll bonding. *Journal of Materials Science*, **2015**, 50, 4422-4429	4.3	20
173	Novel wrought □□ cobalt base superalloys with high strength and improved oxidation resistance. *Scripta Materialia*, **2015**, 109, 104-107	5.6	89
172	Influence of Iridium on the Properties of □-Strengthened Co-Base Superalloys. *Advanced Engineering Materials*, **2015**, 17, 748-754	3.5	13
171	Time-dependent deformation behavior of freestanding and SiNx-supported gold thin films investigated by bulge tests. *Journal of Materials Research*, **2015**, 30, 2161-2169	2.5	9
170	The Thermal Stability of Intermetallic Compounds in an As-Cast SX Co-Base Superalloy. *Advanced Engineering Materials*, **2015**, 17, 741-747	3.5	18
169	Formation of Cuboidal Co3AlC Precipitates in Carbon-Containing Co□Al□W-Based Superalloys. *Advanced Engineering Materials*, **2015**, 17, 1113-1118	3.5	7
168	Ultrafine-Grained Austenitic Stainless Steels X4CrNi18-12 and X8CrMnNi19-6-3 Produced by Accumulative Roll Bonding. *Metals*, **2015**, 5, 730-742	2.3	5
167	Microstructure-dependent deformation behaviour of bcc-metals □indentation size effect and strain rate sensitivity. *Philosophical Magazine*, **2015**, 95, 1766-1779	1.6	50
166	Evolution of microstructure and mechanical properties of coated Co-base superalloys during heat treatment and thermal exposure. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 628, 374-381	5.3	11
165	The effect of tungsten content on the properties of L12-hardened Co□Al□W alloys. *Journal of Alloys and Compounds*, **2015**, 632, 110-115	5.7	66

164	Fatigue behavior of calcium containing AZ91 magnesium alloys*. *Materialpruefung/Materials Testing*, **2015**, 57, 126-130	1.9	
163	Influence of cross-rolling on the mechanical properties of an accumulative roll bonded aluminum alloy AA6014. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 597, 122-127	5.3	23
162	Mechanical properties and lattice misfit of γ′ strengthened Co-base superalloys in the Co-W-Al-Ti quaternary system. *Intermetallics*, **2014**, 55, 28-39	3.5	107
161	Elemental partitioning and mechanical properties of Ti- and Ta-containing Co-Al-W-base superalloys studied by atom probe tomography and nanoindentation. *Acta Materialia*, **2014**, 78, 78-85	8.4	136
160	Crack initiation mechanisms in AA6082 fatigued in the VHCF-regime. *International Journal of Fatigue*, **2014**, 60, 23-27	5	11
159	Tensile and Creep Strength of Thermally Exposed Allvac 718Plus **2014**, 349-360		3
158	Nanoindentierungsprüfung **2014**, 299-351		1
157	Fatigue crack initiation in nickel-based superalloys studied by microstructure-based FE modeling and scanning electron microscopy. *MATEC Web of Conferences*, **2014**, 14, 16001	0.3	1
156	The Strengthening Effect of Phase Boundaries in a Severely Plastically Deformed Ti-Al Composite Wire. *Metals*, **2014**, 4, 37-54	2.3	4
155	Bulge fatigue testing of freestanding and supported gold films. *Journal of Materials Research*, **2014**, 29, 267-276	2.5	22
154	Microstructure and mechanical properties of Cr-Ta-Si Laves phase-based alloys at elevated temperatures. *Philosophical Magazine*, **2014**, 94, 3914-3944	1.6	12
153	Microcantilever bending experiments in NiAl - Evaluation, size effects, and crack tip plasticity. *Journal of Materials Research*, **2014**, 29, 2129-2140	2.5	52
152	Characterization of Oxidation Protection Coatings for High Temperature Applications by Means of Nanoindentation and Scanning Electron Microscopy Methods. *Praktische Metallographie/Practical Metallography*, **2014**, 51, 568-582	0.3	1
151	Influence of specimen geometry on temperature increase during ultrasonic fatigue testing. *Ultrasonics*, **2013**, 53, 1412-6	3.5	3
150	Highly resolved analysis of the chemistry and mechanical properties of an a-C:H coating system by nanoindentation and auger electron spectroscopy. *Thin Solid Films*, **2013**, 528, 263-268	2.2	5
149	Influence of upscaling accumulative roll bonding on the homogeneity and mechanical properties of AA1050A. *Journal of Materials Science*, **2013**, 48, 8377-8385	4.3	17
148	Surface strain evolution of ultrafine-grained aluminum alloy laminates under tension - Microscale plastic instabilities and the Portevin-Le Chatelier effect. *Scripta Materialia*, **2013**, 68, 809-812	5.6	9
147	Plastic deformation mechanisms in a crept L12 hardened Co-base superalloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 571, 13-18	5.3	74

146	Activation parameters for deformation of ultrafine-grained aluminium as determined by indentation strain rate jumps at elevated temperature. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 585, 108-113	5.3	75
145	A simple method for residual stress measurements in thin films by means of focused ion beam milling and digital image correlation. *Surface and Coatings Technology*, **2013**, 215, 247-252	4.4	61
144	Comparison of the monotonic and cyclic mechanical properties of ultrafine-grained low carbon steels processed by continuous and conventional equal channel angular pressing. *Materials & Design*, **2013**, 47, 138-142		10
143	Asymmetric accumulative roll bonding of aluminium–titanium composite sheets. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 576, 306-315	5.3	42
142	Poly(glycerol sebacate)Poly(butylene succinate-dilinoleate) Blends as Candidate Materials for Cardiac Tissue Engineering. *Macromolecular Symposia*, **2013**, 334, 57-67	0.8	12
141	An improved long-term nanoindentation creep testing approach for studying the local deformation processes in nanocrystalline metals at room and elevated temperatures. *Journal of Materials Research*, **2013**, 28, 1177-1188	2.5	114
140	Strain-Rate Sensitivity (SRS) of Nickel by Instrumented Indentation. *Conference Proceedings of the Society for Experimental Mechanics*, **2013**, 47-52	0.3	2
139	Deformation and ultrafine dynamic recrystallization of quartz in pseudotachylyte-bearing brittle faults: A matter of a few seconds. *Journal of Structural Geology*, **2012**, 38, 21-38	3	41
138	Creep properties of different γ′-strengthened Co-base superalloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 550, 333-341	5.3	136
137	Discontinuous Precipitation and Phase Stability In Re- and Ru-Containing Nickel-Base Superalloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 10-19	2.3	24
136	Determination of the interfacial strength and fracture toughness of a-C:H coatings by in-situ microcantilever bending. *Thin Solid Films*, **2012**, 522, 480-484	2.2	41
135	Effect of thermal annealing on the mechanical properties of low-emissivity physical vapor deposited multilayer-coatings for architectural applications. *Thin Solid Films*, **2012**, 520, 7130-7135	2.2	16
134	Microstructure development and hardness of a powder metallurgical multi phase γ-TiAl based alloy. *Intermetallics*, **2012**, 22, 231-240	3.5	115
133	Local Fracture Toughness and Residual Stress Measurements on NiAl Bond Coats by Micro Cantilever and FIB Based Bar Milling Tests **2012**, 93-102		4
132	Creep Strength and Microstructure of Polycrystalline γ′-Strengthened Cobalt-Base Superalloys **2012**, 695-703		15
131	Martensitic Transformation in Ultrafine-Grained Stainless Steel AISI 304L Under Monotonic and Cyclic Loading. *Metals*, **2012**, 2, 56-64	2.3	10
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