

Marc Gd Geers

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328
papers

11,844
citations

56
h-index

97
g-index

334
ext. papers

13,255
ext. citations

3.5
avg, IF

6.75
L-index

#	Paper	IF	Citations
328	Multi-scale computational homogenization: Trends and challenges. <i>Journal of Computational and Applied Mathematics</i> , 2010 , 234, 2175-2182	2.4	588
327	Multi-scale constitutive modelling of heterogeneous materials with a gradient-enhanced computational homogenization scheme. <i>International Journal for Numerical Methods in Engineering</i> , 2002 , 54, 1235-1260	2.4	555
326	A critical comparison of nonlocal and gradient-enhanced softening continua. <i>International Journal of Solids and Structures</i> , 2001 , 38, 7723-7746	3.1	442
325	Multi-scale second-order computational homogenization of multi-phase materials: a nested finite element solution strategy. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 5525-5550	5.7	420
324	Gradient-enhanced damage modelling of concrete fracture. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 1998 , 3, 323-342		278
323	A review of predictive nonlinear theories for multiscale modeling of heterogeneous materials. <i>Journal of Computational Physics</i> , 2017 , 330, 192-220	4.1	237
322	Nonlocal implicit gradient-enhanced elasto-plasticity for the modelling of softening behaviour. <i>International Journal of Plasticity</i> , 2003 , 19, 403-433	7.6	229
321	An improved description of the exponential Xu and Needleman cohesive zone law for mixed-mode decohesion. <i>Engineering Fracture Mechanics</i> , 2006 , 73, 1220-1234	4.2	207
320	Strain-based transient-gradient damage model for failure analyses. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1998 , 160, 133-153	5.7	201
319	Scale dependent crystal plasticity framework with dislocation density and grain boundary effects. <i>International Journal of Solids and Structures</i> , 2004 , 41, 5209-5230	3.1	198
318	Computational homogenization for heat conduction in heterogeneous solids. <i>International Journal for Numerical Methods in Engineering</i> , 2008 , 73, 185-204	2.4	187
317	A comparison of dislocation induced back stress formulations in strain gradient crystal plasticity. <i>International Journal of Solids and Structures</i> , 2006 , 43, 7268-7286	3.1	181
316	Crystal plasticity model with enhanced hardening by geometrically necessary dislocation accumulation. <i>Journal of the Mechanics and Physics of Solids</i> , 2002 , 50, 2403-2424	5	181
315	Structure-property optimization of ultrafine-grained dual-phase steels using a microstructure-based strain hardening model. <i>Acta Materialia</i> , 2007 , 55, 2337-2350	8.4	174
314	An enhanced multi-scale approach for masonry wall computations with localization of damage. <i>International Journal for Numerical Methods in Engineering</i> , 2007 , 69, 1022-1059	2.4	161
313	computational homogenization for the thermo-mechanical analysis of heterogeneous solids. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008 , 198, 602-613	5.7	142
312	Microstructural banding effects clarified through micrographic digital image correlation. <i>Scripta Materialia</i> , 2010 , 62, 835-838	5.6	136

311	On coupled gradient-dependent plasticity and damage theories with a view to localization analysis. <i>European Journal of Mechanics, A/Solids</i> , 1999 , 18, 939-962	3.7	129
310	Gradient-enhanced damage modelling of high-cycle fatigue. <i>International Journal for Numerical Methods in Engineering</i> , 2000 , 49, 1547-1569	2.4	105
309	An experimental assessment of grain size effects in the uniaxial straining of thin Al sheet with a few grains across the thickness. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 419, 238-248	5.3	103
308	Towards optimal design of locally resonant acoustic metamaterials. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 71, 179-196	5	102
307	Biomechanics of traumatic brain injury: influences of the morphologic heterogeneities of the cerebral cortex. <i>Annals of Biomedical Engineering</i> , 2008 , 36, 1203-15	4.7	96
306	Novel boundary conditions for strain localization analyses in microstructural volume elements. <i>International Journal for Numerical Methods in Engineering</i> , 2012 , 90, 1-21	2.4	93
305	Localisation issues in local and nonlocal continuum approaches to fracture. <i>European Journal of Mechanics, A/Solids</i> , 2002 , 21, 175-189	3.7	92
304	Multi-scale mechanics of traumatic brain injury: predicting axonal strains from head loads. <i>Biomechanics and Modeling in Mechanobiology</i> , 2013 , 12, 137-50	3.8	89
303	Transient computational homogenization for heterogeneous materials under dynamic excitation. <i>Journal of the Mechanics and Physics of Solids</i> , 2013 , 61, 2125-2146	5	88
302	Computing strain fields from discrete displacement fields in 2D-solids. <i>International Journal of Solids and Structures</i> , 1996 , 33, 4293-4307	3.1	88
301	Size effects in miniaturized polycrystalline FCC samples: Strengthening versus weakening. <i>International Journal of Solids and Structures</i> , 2006 , 43, 7304-7321	3.1	86
300	Fatigue damage modeling in solder interconnects using a cohesive zone approach. <i>International Journal of Solids and Structures</i> , 2005 , 42, 927-942	3.1	86
299	Visco-elastic effects on wave dispersion in three-phase acoustic metamaterials. <i>Journal of the Mechanics and Physics of Solids</i> , 2016 , 96, 29-47	5	81
298	Experimental analysis of strain path dependent ductile damage mechanics and forming limits. <i>Mechanics of Materials</i> , 2009 , 41, 1264-1276	3.3	80
297	Micromechanics of diffuse axonal injury: influence of axonal orientation and anisotropy. <i>Biomechanics and Modeling in Mechanobiology</i> , 2011 , 10, 413-22	3.8	79
296	Finite strain logarithmic hyperelasto-plasticity with softening: a strongly non-local implicit gradient framework. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 3377-3401	5.7	75
295	A thermodynamically motivated implicit gradient damage framework and its application to brick masonry cracking. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 3403-3417	5.7	75
294	A nonlocal diffuse interface model for microstructure evolution of tinlead solder. <i>Journal of the Mechanics and Physics of Solids</i> , 2004 , 52, 1763-1792	5	73

293	Correlation between thermal fatigue and thermal anisotropy in a Pb-free solder alloy. <i>Scripta Materialia</i> , 2005 , 53, 927-932	5.6	73
292	Computational homogenization for heterogeneous thin sheets. <i>International Journal for Numerical Methods in Engineering</i> , 2010 , 83, 1180-1205	2.4	72
291	Damage and crack modeling in single-edge and double-edge notched concrete beams. <i>Engineering Fracture Mechanics</i> , 2000 , 65, 247-261	4.2	71
290	BCC single crystal plasticity modeling and its experimental identification. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2008 , 16, 085007	2	69
289	An evaluation of higher-order plasticity theories for predicting size effects and localisation. <i>International Journal of Solids and Structures</i> , 2006 , 43, 1857-1877	3.1	69
288	Mesoscopic modeling of failure and damage-induced anisotropy in brick masonry. <i>European Journal of Mechanics, A/Solids</i> , 2004 , 23, 719-735	3.7	69
287	Validation and internal length scale determination for a gradient damage model: application to short glass-fibre-reinforced polypropylene. <i>International Journal of Solids and Structures</i> , 1999 , 36, 2557-2583	3.1	66
286	Deformation patterning driven by rate dependent non-convex strain gradient plasticity. <i>Journal of the Mechanics and Physics of Solids</i> , 2011 , 59, 1-17	5	65
285	Thermomechanical fatigue damage evolution in SAC solder joints. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 445-446, 73-85	5.3	65
284	An adaptive simulation approach designed for tube hydroforming processes. <i>Journal of Materials Processing Technology</i> , 2005 , 159, 303-310	5.3	65
283	Finite strain FFT-based non-linear solvers made simple. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 318, 412-430	5.7	64
282	Multi-scale computational homogenization of structured thin sheets. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2007 , 15, S393-S404	2	64
281	Enhanced solution control for physically and geometrically non-linear problems. Part I: the subplane control approach. <i>International Journal for Numerical Methods in Engineering</i> , 1999 , 46, 177-204	2.4	64
280	Strongly non-local gradient-enhanced finite strain elastoplasticity. <i>International Journal for Numerical Methods in Engineering</i> , 2003 , 56, 2039-2068	2.4	62
279	Identification of the continuum damage parameter: An experimental challenge in modeling damage evolution. <i>Acta Materialia</i> , 2012 , 60, 3581-3589	8.4	61
278	A finite element perspective on nonlinear FFT-based micromechanical simulations. <i>International Journal for Numerical Methods in Engineering</i> , 2017 , 111, 903-926	2.4	59
277	Energetic dislocation interactions and thermodynamical aspects of strain gradient crystal plasticity theories. <i>Journal of the Mechanics and Physics of Solids</i> , 2009 , 57, 1801-1814	5	58
276	Homogenization of locally resonant acoustic metamaterials towards an emergent enriched continuum. <i>Computational Mechanics</i> , 2016 , 57, 423-435	4	57

275	A robust and consistent remeshing-transfer operator for ductile fracture simulations. <i>Computers and Structures</i> , 2006 , 84, 604-623	4.5	57
274	Structural Damage Analysis of Masonry Walls using Computational Homogenization. <i>International Journal of Damage Mechanics</i> , 2007 , 16, 199-226	3	57
273	Size effects from grain statistics in ultra-thin metal sheets. <i>Journal of Materials Processing Technology</i> , 2006 , 174, 233-238	5.3	57
272	A multi-scale approach to bridge microscale damage and macroscale failure: a nested computational homogenization-localization framework. <i>International Journal of Fracture</i> , 2012 , 178, 157-178	2.3	56
271	Directional coarsening in nickel-base superalloys and its effect on the mechanical properties. <i>Computational Materials Science</i> , 2009 , 47, 471-481	3.2	56
270	Discrete crack modelling of ductile fracture driven by non-local softening plasticity. <i>International Journal for Numerical Methods in Engineering</i> , 2006 , 66, 661-688	2.4	56
269	MultiScale First-Order and Second-Order Computational Homogenization of Microstructures towards Continua. <i>International Journal for Multiscale Computational Engineering</i> , 2003 , 1, 371-386	2.4	56
268	A nonlocal triaxiality-dependent ductile damage model for finite strain plasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 4617-4634	5.7	55
267	Interface debonding characterization by image correlation integrated with Double Cantilever Beam kinematics. <i>International Journal of Solids and Structures</i> , 2015 , 55, 79-91	3.1	54
266	Multi-scale continuous-discontinuous framework for computational-homogenization-localization. <i>Journal of the Mechanics and Physics of Solids</i> , 2012 , 60, 1486-1507	5	54
265	Mesoscopic modeling of failure in brick masonry accounting for three-dimensional effects. <i>Engineering Fracture Mechanics</i> , 2005 , 72, 1238-1253	4.2	53
264	Direct Stress-Strain Measurements from Bulged Membranes Using Topography Image Correlation. <i>Experimental Mechanics</i> , 2014 , 54, 717-727	2.6	52
263	A multi-scale model of martensitic transformation plasticity. <i>Mechanics of Materials</i> , 2008 , 40, 641-657	3.3	51
262	An integrated continuous-discontinuous approach towards damage engineering in sheet metal forming processes. <i>Engineering Fracture Mechanics</i> , 2006 , 73, 895-916	4.2	51
261	A multiscale model of grain boundary structure and energy: From atomistics to a continuum description. <i>Acta Materialia</i> , 2015 , 82, 513-529	8.4	50
260	Cohesive zone modeling for structural integrity analysis of IC interconnects. <i>Microelectronics Reliability</i> , 2007 , 47, 1251-1261	1.2	50
259	Non-convex rate dependent strain gradient crystal plasticity and deformation patterning. <i>International Journal of Solids and Structures</i> , 2012 , 49, 2625-2636	3.1	49
258	Grain boundary interface mechanics in strain gradient crystal plasticity. <i>Journal of the Mechanics and Physics of Solids</i> , 2013 , 61, 2659-2679	5	49

257	A cohesive zone model with a large displacement formulation accounting for interfacial fibrillation. <i>European Journal of Mechanics, A/Solids</i> , 2007 , 26, 1-19	3.7	49
256	Asymptotic Behaviour of a Pile-Up of Infinite Walls of Edge Dislocations. <i>Archive for Rational Mechanics and Analysis</i> , 2013 , 209, 495-539	2.3	48
255	Time-incremental creep-fatigue damage rule for single crystal Ni-base superalloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009 , 508, 200-208	5.3	48
254	A Thermo-mechanical cohesive zone model. <i>Computational Mechanics</i> , 2010 , 46, 735-745	4	48
253	On the development of a 3D cohesive zone element in the presence of large deformations. <i>Computational Mechanics</i> , 2008 , 42, 171-180	4	46
252	Multi-scale computational homogenization/localization for propagating discontinuities using X-FEM. <i>International Journal for Numerical Methods in Engineering</i> , 2015 , 102, 496-527	2.4	45
251	The attenuation performance of locally resonant acoustic metamaterials based on generalised viscoelastic modelling. <i>International Journal of Solids and Structures</i> , 2017 , 126-127, 163-174	3.1	44
250	Continuum modeling of dislocation interactions: Why discreteness matters?. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 486, 653-661	5.3	42
249	On image gradients in digital image correlation. <i>International Journal for Numerical Methods in Engineering</i> , 2016 , 105, 243-260	2.4	42
248	On the role of interlath retained austenite in the deformation of lath martensite. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2014 , 22, 045011	2	41
247	Coupled glide-climb diffusion-enhanced crystal plasticity. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 70, 136-153	5	41
246	Processing induced size effects in plastic yielding upon miniaturisation. <i>Journal of the Mechanics and Physics of Solids</i> , 2008 , 56, 2687-2706	5	41
245	Second-order crystal plasticity: internal stress effects and cyclic loading. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2007 , 15, S133-S145	2	41
244	Time-resolved integrated digital image correlation. <i>International Journal for Numerical Methods in Engineering</i> , 2015 , 103, 157-182	2.4	40
243	Roadmap on multiscale materials modeling. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2020 , 28, 043001	2	40
242	Identification and characterization of delamination in polymer coated metal sheet. <i>Journal of the Mechanics and Physics of Solids</i> , 2008 , 56, 3259-3276	5	40
241	Phenomenological nonlocal approaches based on implicit gradient-enhanced damage. <i>Acta Mechanica</i> , 2000 , 144, 1-15	2.1	39
240	A general multiscale framework for the emergent effective elastodynamics of metamaterials. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 111, 414-433	5	39

239	A quantitative assessment of the scale separation limits of classical and higher-order asymptotic homogenization. <i>European Journal of Mechanics, A/Solids</i> , 2018 , 71, 89-100	3.7	38
238	Mixed numerical-experimental identification of non-local characteristics of random-fibre-reinforced composites. <i>Composites Science and Technology</i> , 1999 , 59, 1569-1578	8.6	38
237	A multiscale quasicontinuum method for dissipative lattice models and discrete networks. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 64, 154-169	5	37
236	A multiscale quasicontinuum method for lattice models with bond failure and fiber sliding. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014 , 269, 108-122	5.7	37
235	Plasticity of lath martensite by sliding of substructure boundaries. <i>Scripta Materialia</i> , 2016 , 120, 37-40	5.6	37
234	Ferrite slip system activation investigated by uniaxial micro-tensile tests and simulations. <i>Acta Materialia</i> , 2018 , 146, 314-327	8.4	36
233	An implicit gradient plasticity-damage theory for predicting size effects in hardening and softening. <i>Engineering Fracture Mechanics</i> , 2012 , 95, 2-12	4.2	36
232	Cube slip and non-Schmid effects in single crystal Ni-base superalloys. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2010 , 18, 015005	2	36
231	Intergranular thermal fatigue damage evolution in SnAgCu lead-free solder. <i>Mechanics of Materials</i> , 2008 , 40, 780-791	3.3	36
230	Microstructure evolution in a Pb-free solder alloy during mechanical fatigue. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 431, 166-174	5.3	36
229	A three-dimensional dislocation field crystal plasticity approach applied to miniaturized structures. <i>Philosophical Magazine</i> , 2007 , 87, 1361-1378	1.6	35
228	Subgrain lath martensite mechanics: A numerical-experimental analysis. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 73, 69-83	5	34
227	A quasicontinuum methodology for multiscale analyses of discrete microstructural models. <i>International Journal for Numerical Methods in Engineering</i> , 2011 , 87, 701-718	2.4	34
226	Copper-rubber interface delamination in stretchable electronics. <i>Scripta Materialia</i> , 2010 , 63, 875-878	5.6	34
225	Enhanced solution control for physically and geometrically non-linear problems. Part II: Comparative performance analysis. <i>International Journal for Numerical Methods in Engineering</i> , 1999 , 46, 205-230	2.4	34
224	An enriched cohesive zone model for delamination in brittle interfaces. <i>International Journal for Numerical Methods in Engineering</i> , 2009 , 80, 609-630	2.4	33
223	Multiscale modeling of microstructure-property relations. <i>MRS Bulletin</i> , 2016 , 41, 610-616	3.2	33
222	A critical assessment of indentation-based ductile damage quantification. <i>Acta Materialia</i> , 2009 , 57, 4957-4966	3.1	31

221	Integrated numerical & experimental analysis of interfacial fatigue fracture in SnAgCu solder joints. <i>International Journal of Solids and Structures</i> , 2007 , 44, 5680-5694	3.1	31
220	2D Phase field modeling of sintering of silver nanoparticles. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016 , 312, 492-508	5.7	31
219	A multiscale framework for localizing microstructures towards the onset of macroscopic discontinuity. <i>Computational Mechanics</i> , 2014 , 54, 299-319	4	30
218	Governing equations for a two-scale analysis of Li-ion battery cells. <i>International Journal of Solids and Structures</i> , 2015 , 59, 90-109	3.1	29
217	Multi-scale modeling of delamination through fibrillation. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 66, 117-132	5	29
216	Tensile response of passivated films with climb-assisted dislocation glide. <i>Journal of the Mechanics and Physics of Solids</i> , 2012 , 60, 1626-1643	5	29
215	An implicit tensorial gradient plasticity model I Formulation and comparison with a scalar gradient model. <i>International Journal of Solids and Structures</i> , 2011 , 48, 2595-2604	3.1	29
214	On the prediction of delamination during deep-drawing of polymer coated metal sheet. <i>Journal of Materials Processing Technology</i> , 2009 , 209, 297-302	5.3	29
213	Mechanics of dislocation pile-ups: A unification of scaling regimes. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 70, 42-61	5	28
212	Multi-Axial Deformation Setup for Microscopic Testing of Sheet Metal to Fracture. <i>Experimental Mechanics</i> , 2012 , 52, 669-678	2.6	28
211	Microstructural topology effects on the onset of ductile failure in multi-phase materials I A systematic computational approach. <i>International Journal of Solids and Structures</i> , 2015 , 67-68, 326-339	3.1	26
210	Homogenized enriched continuum analysis of acoustic metamaterials with negative stiffness and double negative effects. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 119, 104-117	5	26
209	Quantification of Three-Dimensional Surface Deformation using Global Digital Image Correlation. <i>Experimental Mechanics</i> , 2014 , 54, 557-570	2.6	26
208	Micromorphic computational homogenization for mechanical metamaterials with patterning fluctuation fields. <i>Journal of the Mechanics and Physics of Solids</i> , 2019 , 123, 119-137	5	26
207	A tissue-level anisotropic criterion for brain injury based on microstructural axonal deformation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012 , 5, 41-52	4.1	25
206	Incorporating strain gradient effects in a multiscale constitutive framework for nickel-base superalloys. <i>Philosophical Magazine</i> , 2008 , 88, 3793-3825	1.6	25
205	Residual stresses in microelectronics induced by thermoset packaging materials during cure. <i>Microelectronics Reliability</i> , 2004 , 44, 1985-1994	1.2	25
204	On the lack of rotational equilibrium in cohesive zone elements. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013 , 254, 146-153	5.7	24

203	Predicting hygro-elastic properties of paper sheets based on an idealized model of the underlying fibrous network. <i>International Journal of Solids and Structures</i> , 2015 , 56-57, 43-52	3.1	24
202	Elasto-viscoplastic nonlocal damage modelling of thermal fatigue in anisotropic lead-free solder. <i>Mechanics of Materials</i> , 2007 , 39, 685-701	3.3	24
201	Phase field dependent viscoplastic behaviour of solder alloys. <i>International Journal of Solids and Structures</i> , 2005 , 42, 2533-2558	3.1	24
200	Indentation-based damage quantification revisited. <i>Scripta Materialia</i> , 2010 , 63, 316-319	5.6	23
199	Modelling the evolution of dislocation structures upon stress reversal. <i>International Journal of Solids and Structures</i> , 2007 , 44, 6030-6054	3.1	23
198	A multiscale-compatible approach in modeling ionic transport in the electrolyte of (Lithium ion) batteries. <i>Journal of Power Sources</i> , 2015 , 293, 892-911	8.9	22
197	Thermo-mechanical analyses of heterogeneous materials with a strongly anisotropic phase: the case of cast iron. <i>International Journal of Solids and Structures</i> , 2015 , 63, 153-166	3.1	22
196	Central summation in the quasicontinuum method. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 70, 242-261	5	22
195	Measuring time-dependent deformations in metallic MEMS. <i>Microelectronics Reliability</i> , 2011 , 51, 1054-1059		22
194	Experimental monitoring of strain localization and failure behaviour of composite materials. <i>Composites Science and Technology</i> , 1996 , 56, 1283-1290	8.6	22
193	Correction of Scanning Electron Microscope Imaging Artifacts in a Novel Digital Image Correlation Framework. <i>Experimental Mechanics</i> , 2019 , 59, 489-516	2.6	21
192	Multiphysical modeling of the photopolymerization process for additive manufacturing of ceramics. <i>European Journal of Mechanics, A/Solids</i> , 2018 , 71, 210-223	3.7	21
191	Microscopic plasticity and damage in two-phase steels: On the competing role of crystallography and phase contrast. <i>Mechanics of Materials</i> , 2016 , 101, 147-159	3.3	21
190	Experimental analysis of the evolution of thermal shock damage using transit time measurement of ultrasonic waves. <i>Journal of the European Ceramic Society</i> , 2009 , 29, 1309-1322	6	21
189	Experimental and numerical investigation of creasing in corrugated paperboard. <i>Philosophical Magazine</i> , 2008 , 88, 3299-3310	1.6	21
188	A crystal plasticity based estimate for forming limit diagrams from textural inhomogeneities. <i>Journal of Materials Processing Technology</i> , 2005 , 168, 211-218	5.3	21
187	Contribution of austenite-martensite transformation to deformability of advanced high strength steels: From atomistic mechanisms to microstructural response. <i>Acta Materialia</i> , 2018 , 156, 463-478	8.4	20
186	Application of non-convex rate dependent gradient plasticity to the modeling and simulation of inelastic microstructure development and inhomogeneous material behavior. <i>Computational Materials Science</i> , 2013 , 80, 51-60	3.2	20

185	Modelling of the internal stress in dislocation cell structures. <i>European Journal of Mechanics, A/Solids</i> , 2007 , 26, 982-998	3.7	20
184	A three-dimensional self-adaptive cohesive zone model for interfacial delamination. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011 , 200, 3540-3553	5.7	19
183	In-situ characterization of interface delamination by a new miniature mixed mode bending setup. <i>International Journal of Fracture</i> , 2009 , 158, 183-195	2.3	19
182	Aspects of coarsening in eutectic SnPb. <i>Acta Materialia</i> , 2004 , 52, 3475-3482	8.4	19
181	Microscopically derived free energy of dislocations. <i>Journal of the Mechanics and Physics of Solids</i> , 2015 , 78, 186-209	5	18
180	Correction of scan line shift artifacts in scanning electron microscopy: An extended digital image correlation framework. <i>Ultramicroscopy</i> , 2018 , 187, 144-163	3.1	18
179	Competing damage mechanisms in a two-phase microstructure: How microstructure and loading conditions determine the onset of fracture. <i>International Journal of Solids and Structures</i> , 2016 , 97-98, 687-698	3.1	18
178	An improved miniature mixed-mode delamination setup for in situ microscopic interface failure analyses. <i>Journal Physics D: Applied Physics</i> , 2011 , 44, 034005	3	18
177	On the numerical modelling of ductile damage with an implicit gradient-enhanced formulation. <i>Revue Europeenne Des Elements</i> , 2001 , 10, 173-191		18
176	Characterization of time-dependent anelastic microbeam bending mechanics. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 355306	3	17
175	Homogenization towards a grain-size dependent plasticity theory for single slip. <i>Journal of the Mechanics and Physics of Solids</i> , 2013 , 61, 913-927	5	17
174	A Global Digital Image Correlation Enhanced Full-Field Bulge Test Method. <i>Procedia IUTAM</i> , 2012 , 4, 73-81		17
173	A composite dislocation cell model to describe strain path change effects in BCC metals. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2009 , 17, 064008	2	17
172	Contactless and Frictionless Pure Bending. <i>Experimental Mechanics</i> , 2010 , 50, 683-693	2.6	17
171	Experimental characterization and model identification of directional hardening effects in metals for complex strain path changes. <i>International Journal of Solids and Structures</i> , 2010 , 47, 1361-1374	3.1	17
170	Operator-split damage-plasticity applied to groove forming in food can lids. <i>International Journal of Solids and Structures</i> , 2005 , 42, 4154-4178	3.1	17
169	Deformation behaviour of lath martensite in multi-phase steels. <i>Scripta Materialia</i> , 2016 , 110, 74-77	5.6	16
168	Ultra-Stretchable Interconnects for High-Density Stretchable Electronics. <i>Micromachines</i> , 2017 , 8,	3.3	16

167	Irreversible mixed mode interface delamination using a combined damage-plasticity cohesive zone enabling unloading. <i>International Journal of Fracture</i> , 2014 , 185, 77-95	2.3	16
166	Fatigue fracture of SnAgCu solder joints by microstructural modeling. <i>International Journal of Fracture</i> , 2008 , 152, 37-49	2.3	16
165	Interfacial characterization of pre-strained polymer coated steel by a numerical-experimental approach. <i>Mechanics of Materials</i> , 2008 , 40, 302-317	3.3	16
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