

Eduard Arzt

List of Publications by Year in descending order

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373
papers

23,280
citations

8732

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143
g-index

385
all docs

385
docs citations

385
times ranked

12788
citing authors

#	ARTICLE	IF	CITATIONS
1	Materials become insensitive to flaws at nanoscale: Lessons from nature. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 5597-5600.	3.3	1,641
2	Size effects in materials due to microstructural and dimensional constraints: a comparative review. Acta Materialia, 1998, 46, 5611-5626.	3.8	1,015
3	From micro to nano contacts in biological attachment devices. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 10603-10606.	3.3	985
4	Mechanics of hierarchical adhesion structures of geckos. Mechanics of Materials, 2005, 37, 275-285.	1.7	592
5	Evidence for capillarity contributions to gecko adhesion from single spatula nanomechanical measurements. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 16293-16296.	3.3	576
6	Fabrication Approaches for Generating Complex Micro- and Nanopatterns on Polymeric Surfaces. Chemical Reviews, 2008, 108, 911-945.	23.0	423
7	A new model-based creep equation for dispersion strengthened materials. Acta Metallurgica Et Materialia, 1990, 38, 671-683.	1.9	415
8	Gecko-Inspired Surfaces: A Path to Strong and Reversible Dry Adhesives. Advanced Materials, 2010, 22, 2125-2137.	11.1	415
9	Contact Shape Controls Adhesion of Bioinspired Fibrillar Surfaces. Langmuir, 2007, 23, 10235-10243.	1.6	395
10	Adhesion of Bioinspired Micropatterned Surfaces: Effects of Pillar Radius, Aspect Ratio, and Preload. Langmuir, 2007, 23, 3495-3502.	1.6	381
11	Threshold stresses for dislocation climb over hard particles: The effect of an attractive interaction. Acta Metallurgica, 1986, 34, 1893-1898.	2.1	375
12	Observation of Giant Diffusivity Along Dislocation Cores. Science, 2008, 319, 1646-1649.	6.0	374
13	Size effect on strength and strain hardening of small-scale [111] nickel compression pillars. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 489, 319-329.	2.6	345
14	The influence of an increasing particle coordination on the densification of spherical powders. Acta Metallurgica, 1982, 30, 1883-1890.	2.1	344
15	Practical applications of hotisostatic Pressing diagrams: Four case studies. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1983, 14, 211-221.	1.4	342
16	Interface controlled diffusional creep. Acta Metallurgica, 1983, 31, 1977-1989.	2.1	295
17	Bioinspired Surfaces with Switchable Adhesion. Advanced Materials, 2007, 19, 3833-3837.	11.1	295
18	The kinetics of dislocation climb over hard particles II. Effects of an attractive particle-dislocation interaction. Acta Metallurgica, 1988, 36, 1053-1060.	2.1	284

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19	Quantitative analysis of strengthening mechanisms in thin Cu films: Effects of film thickness, grain size, and passivation. <i>Journal of Materials Research</i> , 1998, 13, 1307-1317.	1.2	256
20	Adhesion design maps for bio-inspired attachment systems. <i>Acta Biomaterialia</i> , 2005, 1, 5-13.	4.1	250
21	Resolving the nanoscale adhesion of individual gecko spatulae by atomic force microscopy. <i>Biology Letters</i> , 2005, 1, 2-4.	1.0	239
22	Effects of contact shape on the scaling of biological attachments. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2005, 461, 305-319.	1.0	236
23	Functional Adhesive Surfaces with "Gecko" Effect: The Concept of Contact Splitting. <i>Advanced Engineering Materials</i> , 2010, 12, 335-348.	1.6	221
24	Patterned Surfaces with Pillars with Controlled 3D Tip Geometry Mimicking Bioattachment Devices. <i>Advanced Materials</i> , 2007, 19, 1973-1977.	11.1	210
25	Correlation between Critical Temperature and Strength of Small-Scale bcc Pillars. <i>Physical Review Letters</i> , 2009, 103, 105501.	2.9	207
26	Hierarchical Gecko-Like Adhesives. <i>Advanced Materials</i> , 2009, 21, 479-482.	11.1	202
27	Crack-like grain-boundary diffusion wedges in thin metal films. <i>Acta Materialia</i> , 1999, 47, 2865-2878.	3.8	199
28	A Gecko-Inspired Reversible Adhesive. <i>Advanced Materials</i> , 2008, 20, 3905-3909.	11.1	187
29	Electromigration failure by shape change of voids in bamboo lines. <i>Journal of Applied Physics</i> , 1994, 76, 1563-1571.	1.1	185
30	Influence of surface roughness on gecko adhesion. <i>Acta Biomaterialia</i> , 2007, 3, 607-610.	4.1	184
31	Densification of Powders by Particle Deformation. <i>Powder Metallurgy</i> , 1983, 26, 82-88.	0.9	180
32	Threshold stresses in materials containing dispersed particles. <i>Scripta Metallurgica</i> , 1982, 16, 1285-1290.	1.2	178
33	Length-scale-controlled fatigue mechanisms in thin copper films. <i>Acta Materialia</i> , 2006, 54, 3127-3139.	3.8	172
34	Electrical transport in pure and boron-doped carbon nanotubes. <i>Applied Physics Letters</i> , 1999, 74, 3149-3151.	1.5	171
35	Size effects on yield strength and strain hardening for ultra-thin Cu films with and without passivation: A study by synchrotron and bulge test techniques. <i>Acta Materialia</i> , 2008, 56, 2318-2335.	3.8	153
36	The kinetics of dislocation climb over hard particles". Climb without attractive particle-dislocation interaction. <i>Acta Metallurgica</i> , 1988, 36, 1043-1051.	2.1	152

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37	Loss of pseudoelasticity in nickel-titanium sub-micron compression pillars. <i>Acta Materialia</i> , 2007, 55, 3845-3855.	3.8	144
38	Weak beam studies of dislocation/dispersoid interaction in an ods superalloy. <i>Scripta Metallurgica</i> , 1985, 19, 1129-1134.	1.2	136
39	Texture, microstructure and mechanical properties of equiaxed ultrafine-grained Zr fabricated by accumulative roll bonding. <i>Acta Materialia</i> , 2008, 56, 1228-1242.	3.8	136
40	Local mechanical properties of the head articulation cuticle in the beetle <i>Pachnoda marginata</i> (Coleoptera, Scarabaeidae). <i>Journal of Experimental Biology</i> , 2006, 209, 722-730.	0.8	135
41	Thermomechanical behavior of different texture components in Cu thin films. <i>Acta Materialia</i> , 2001, 49, 2145-2160.	3.8	133
42	Constrained diffusional creep in UHV-produced copper thin films. <i>Acta Materialia</i> , 2001, 49, 2395-2403.	3.8	128
43	Strain bursts in plastically deforming molybdenum micro- and nanopillars. <i>Philosophical Magazine</i> , 2008, 88, 3861-3874.	0.7	128
44	Engineering Micropatterned Dry Adhesives: From Contact Theory to Handling Applications. <i>Advanced Functional Materials</i> , 2018, 28, 1800865.	7.8	127
45	Effects of grain orientation on hillock formation and grain growth in aluminum films on silicon substrates. <i>Scripta Metallurgica Et Materialia</i> , 1992, 27, 285-290.	1.0	126
46	Effect of orientation and loading rate on compression behavior of small-scale Mo pillars. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 508, 241-246.	2.6	125
47	The effect of shape on the adhesion of fibrillar surfaces. <i>Acta Biomaterialia</i> , 2008, 4, 1669-1676.	4.1	123
48	Stress-temperature behavior of unpassivated thin copper films. <i>Acta Materialia</i> , 1999, 47, 415-426.	3.8	120
49	Mechanisms of hot-isostatic pressing. <i>Acta Metallurgica</i> , 1983, 31, 1829-1840.	2.1	119
50	Interface controlled plasticity in metals: dispersion hardening and thin film deformation. <i>Progress in Materials Science</i> , 2001, 46, 283-307.	16.0	118
51	Functional surface microstructures inspired by nature – From adhesion and wetting principles to sustainable new devices. <i>Progress in Materials Science</i> , 2021, 120, 100823.	16.0	117
52	Particle Deformation and Sliding During Compaction of Spherical Powders: A Study by Quantitative Metallography. <i>Powder Metallurgy</i> , 1978, 21, 179-187.	0.9	110
53	Microstructure and creep properties of dispersion-strengthened aluminum alloys. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1992, 23, 1521-1393.	1.4	109
54	Hierarchical bioinspired adhesive surfaces – a review. <i>Bioinspiration and Biomimetics</i> , 2016, 11, 051001.	1.5	109

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55	Dislocation sources and the flow stress of polycrystalline thin metal films. <i>Philosophical Magazine Letters</i> , 2003, 83, 1-8.	0.5	108
56	Nanostructured medical sutures with antibacterial properties. <i>Biomaterials</i> , 2015, 52, 291-300.	5.7	103
57	Electromigration mechanisms in conductor lines: Void shape changes and slit-like failure. <i>Acta Materialia</i> , 1997, 45, 1599-1611.	3.8	102
58	Parallel glide: unexpected dislocation motion parallel to the substrate in ultrathin copper films. <i>Acta Materialia</i> , 2003, 51, 4471-4485.	3.8	99
59	Effect of Contact Angle Hysteresis on the Measurement of Capillary Forces. <i>Langmuir</i> , 2008, 24, 1391-1396.	1.6	96
60	Temperature-dependent size effects on the strength of Ta and W micropillars. <i>Acta Materialia</i> , 2016, 103, 483-494.	3.8	96
61	A model for the effect of line width and mechanical strength on electromigration failure of interconnects with "bamboo" grain structures. <i>Journal of Materials Research</i> , 1991, 6, 731-736.	1.2	95
62	Small-scale plasticity in thin Cu and Al films. <i>Microelectronic Engineering</i> , 2003, 70, 412-424.	1.1	93
63	Adhesion Characteristics of PDMS Surfaces During Repeated Pull-Off Force Measurements. <i>Advanced Engineering Materials</i> , 2010, 12, 398-404.	1.6	93
64	Dealloying of Au-Ag thin films with a composition gradient: Influence on morphology of nanoporous Au. <i>Thin Solid Films</i> , 2007, 515, 7122-7126.	0.8	87
65	Discrete dislocation simulation of plastic deformation in metal thin films. <i>Acta Materialia</i> , 2004, 52, 773-784.	3.8	86
66	X-ray diffraction as a tool to study the mechanical behaviour of thin films. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000, 288, 209-216.	2.6	85
67	Structure and properties of the glandular surface in the digestive zone of the pitcher in the carnivorous plant <i>Nepenthes ventrata</i> and its role in insect trapping and retention. <i>Journal of Experimental Biology</i> , 2004, 207, 2947-2963.	0.8	84
68	Preliminary investigation of a NiAl composite prepared by cryomilling. <i>Journal of Materials Research</i> , 1990, 5, 271-277.	1.2	83
69	A new method to study cyclic deformation of thin films in tension and compression. <i>Journal of Materials Research</i> , 1999, 14, 2373-2376.	1.2	83
70	Microstructure of thermal hillocks on blanket Al thin films. <i>Thin Solid Films</i> , 2000, 371, 278-282.	0.8	81
71	Dislocation sources in discrete dislocation simulations of thin-film plasticity and the Hall-Petch relation. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2001, 9, 157-169.	0.8	81
72	Damage Behavior of 200-nm Thin Copper Films Under Cyclic Loading. <i>Journal of Materials Research</i> , 2005, 20, 201-207.	1.2	80

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73	Tensile testing of ultrathin polycrystalline films: A synchrotron-based technique. <i>Review of Scientific Instruments</i> , 2004, 75, 1110-1119.	0.6	77
74	Composite Pillars with a Tunable Interface for Adhesion to Rough Substrates. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 1036-1044.	4.0	77
75	Design Parameters and Current Fabrication Approaches for Developing Bioinspired Dry Adhesives. <i>Macromolecular Bioscience</i> , 2007, 7, 118-127.	2.1	76
76	Influence of orientation on the size effect in bcc pillars with different critical temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 1540-1547.	2.6	76
77	Fibrillar Elastomeric Micropatterns Create Tunable Adhesion Even to Rough Surfaces. <i>Advanced Functional Materials</i> , 2016, 26, 4687-4694.	7.8	76
78	Creep behavior of magnesium die-cast alloy ZA85. <i>Scripta Materialia</i> , 2003, 48, 985-990.	2.6	75
79	Quasi-crystalline grain-boundary phase in the magnesium die-cast alloy ZA85. <i>Scripta Materialia</i> , 2001, 45, 517-524.	2.6	74
80	Dislocation Plasticity in Thin Metal Films. <i>MRS Bulletin</i> , 2002, 27, 30-37.	1.7	74
81	Fatigue behavior of polycrystalline thin copper films. <i>International Journal of Materials Research</i> , 2002, 93, 392-400.	0.8	74
82	Enhancement of Capillary Forces by Multiple Liquid Bridges. <i>Langmuir</i> , 2008, 24, 8813-8820.	1.6	74
83	Capillary Forces between Chemically Different Substrates. <i>Langmuir</i> , 2008, 24, 10161-10168.	1.6	74
84	Grain size determination and limits to Hall-Petch behavior in nanocrystalline NiAl powders. <i>Scripta Materialia</i> , 1997, 8, 855-865.	0.5	73
85	Numerical simulation of electromigration-induced shape changes of voids in bamboo lines. <i>Applied Physics Letters</i> , 1995, 66, 2063-2065.	1.5	72
86	Designing Model Systems for Enhanced Adhesion. <i>MRS Bulletin</i> , 2007, 32, 496-503.	1.7	72
87	Numerical simulation of the edge stress singularity and the adhesion strength for compliant mushroom fibrils adhered to rigid substrates. <i>International Journal of Solids and Structures</i> , 2016, 85-86, 160-171.	1.3	70
88	Nanofibrillar Patterns by Plasma Etching: The Influence of Polymer Crystallinity and Orientation in Surface Morphology. <i>Macromolecules</i> , 2010, 43, 9908-9917.	2.2	69
89	Exploring Biological Surfaces by Nanoindentation. <i>Journal of Materials Research</i> , 2004, 19, 880-887.	1.2	68
90	Texture transition in Cu thin films: Electron backscatter diffraction vs. X-ray diffraction. <i>Acta Materialia</i> , 2006, 54, 3863-3870.	3.8	68

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91	Abnormal growth of "giant" grains in silver thin films. <i>Acta Materialia</i> , 2001, 49, 1041-1050.	3.8	66
92	Strength Effects in Micropillars of a Dispersion Strengthened Superalloy. <i>Advanced Engineering Materials</i> , 2010, 12, 385-388.	1.6	66
93	On void nucleation and growth in metal interconnect lines under electromigration conditions. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1992, 23, 2007-2013.	1.4	65
94	Effect of nano- and micro-roughness on adhesion of bioinspired micropatterned surfaces. <i>Acta Biomaterialia</i> , 2012, 8, 282-288.	4.1	64
95	Electromigration induced transgranular slit failures in near bamboo Al and Al ₂ Cu thin film interconnects. <i>Applied Physics Letters</i> , 1992, 61, 3121-3123.	1.5	63
96	In situ transmission electron microscopy study of dislocations in a polycrystalline Cu thin film constrained by a substrate. <i>Applied Physics Letters</i> , 2000, 77, 1126-1128.	1.5	63
97	Biological and artificial attachment devices: Lessons for materials scientists from flies and geckos. <i>Materials Science and Engineering C</i> , 2006, 26, 1245-1250.	3.8	63
98	Thermal Vacancies and High-Temperature Mechanical Properties of FeAl. <i>Physica Status Solidi A</i> , 1997, 160, 531-540.	1.7	62
99	Towards a micromechanical understanding of biological surface devices. <i>International Journal of Materials Research</i> , 2002, 93, 345-351.	0.8	62
100	Effect of real contact geometry on adhesion. <i>Applied Physics Letters</i> , 2006, 89, 121905.	1.5	62
101	Adhesion design maps for fibrillar adhesives: The effect of shape. <i>Acta Biomaterialia</i> , 2009, 5, 597-606.	4.1	61
102	Numerical study of adhesion enhancement by composite fibrils with soft tip layers. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 99, 357-378.	2.3	60
103	Microstructural development in dispersion strengthened NiAl produced by mechanical alloying and secondary recrystallization. <i>Acta Materialia</i> , 1997, 45, 201-211.	3.8	59
104	Temperature-Induced Switchable Adhesion using Nickel-Titanium-Polydimethylsiloxane Hybrid Surfaces. <i>Advanced Functional Materials</i> , 2015, 25, 3013-3021.	7.8	58
105	Strong Wet and Dry Adhesion by Cupped Microstructures. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 26483-26490.	4.0	58
106	Microstructural evolution in passivated Al films on Si substrates during thermal cycling. <i>Acta Materialia</i> , 2002, 50, 3435-3452.	3.8	57
107	Bioinspired pressure actuated adhesive system. <i>Materials Science and Engineering C</i> , 2011, 31, 1152-1159.	3.8	57
108	Kinetics and driving forces of abnormal grain growth in thin Cu films. <i>Acta Materialia</i> , 2012, 60, 2397-2406.	3.8	57

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109	In situ transmission electron microscopy study of thermal-stress-induced dislocations in a thin Cu film constrained by a Si substrate. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 309-310, 468-472.	2.6	56
110	Orientation-independent pseudoelasticity in small-scale NiTi compression pillars. <i>Scripta Materialia</i> , 2008, 59, 7-10.	2.6	56
111	Brittle-to-ductile transition in ultrathin Ta/Cu film systems. <i>Journal of Materials Research</i> , 2009, 24, 1906-1918.	1.2	56
112	High temperature creep behavior of oxide dispersion strengthened NiAl intermetallics. <i>Acta Materialia</i> , 1998, 46, 2717-2727.	3.8	54
113	Temperature rise during mechanical alloying. <i>Scripta Metallurgica Et Materialia</i> , 1992, 27, 749-754.	1.0	53
114	Detachment of an adhered micropillar from a dissimilar substrate. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 75, 159-183.	2.3	53
115	Surface detection in nanoindentation of soft polymers. <i>Journal of Materials Research</i> , 2007, 22, 3107-3119.	1.2	50
116	Observation and Modelling of Electromigration-Induced Void growth in Al-Based Interconnects. <i>Materials Research Society Symposia Proceedings</i> , 1993, 309, 199.	0.1	49
117	Effect of Viscoelasticity on Adhesion of Bioinspired Micropatterned Epoxy Surfaces. <i>Langmuir</i> , 2011, 27, 7752-7759.	1.6	49
118	1300 K compressive properties of a reaction milled NiAl ϵ -AlN composite. <i>Journal of Materials Research</i> , 1990, 5, 2819-2827.	1.2	48
119	Strong single-crystalline Au films tested by a new synchrotron technique. <i>Acta Materialia</i> , 2008, 56, 1876-1889.	3.8	47
120	Growth of giant grains in silver thin films. <i>Scripta Materialia</i> , 1999, 41, 709-714.	2.6	44
121	Influence of test temperature on the size effect in molybdenum small-scale compression pillars. <i>Philosophical Magazine Letters</i> , 2013, 93, 331-338.	0.5	43
122	Effect of calcium additions on the creep behavior of magnesium die-cast alloy ZA85. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2005, 36, 1713-1719.	1.1	42
123	Adhesion of Flat and Structured PDMS Samples to Spherical and Flat Probes: A Comparative Study. <i>Journal of Adhesion</i> , 2011, 87, 447-465.	1.8	42
124	Funnel-shaped Microstructures for Strong Reversible Adhesion. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700292.	1.9	42
125	Microstructural size effects on the hardness of nanocrystalline TiN/amorphous-SiNx coatings prepared by magnetron sputtering. <i>Thin Solid Films</i> , 2005, 473, 114-122.	0.8	40
126	A Theoretical Description of Elastic Pillar Substrates in Biophysical Experiments. <i>ChemPhysChem</i> , 2005, 6, 1492-1498.	1.0	40

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127	Advanced testing of adhesion and friction with a microtribometer. <i>Review of Scientific Instruments</i> , 2006, 77, 066105.	0.6	40
128	Effects of alloying elements on electromigration. <i>Microelectronics Reliability</i> , 1998, 38, 1015-1020.	0.9	39
129	Electromigration-induced Cu motion and precipitation in bamboo Al-Cu interconnects. <i>Acta Materialia</i> , 2003, 51, 49-60.	3.8	39
130	Micrometer-Scale Tensile Testing of Biological Attachment Devices. <i>Advanced Materials</i> , 2006, 18, 874-877.	11.1	39
131	Textures of thin copper films. <i>Journal of Materials Research</i> , 1998, 13, 2962-2968.	1.2	38
132	The elastic modulus of spruce wood cell wall material measured by an in situ bending technique. <i>Journal of Materials Science</i> , 2006, 41, 5122-5126.	1.7	38
133	Preload-responsive adhesion: effects of aspect ratio, tip shape and alignment. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20130171.	1.5	38
134	The whole is more than the sum of all its parts: collective effect of spider attachment organs. <i>Journal of Experimental Biology</i> , 2014, 217, 222-224.	0.8	38
135	A quantitative study of the hardness of a superhard nanocrystalline titanium nitride/silicon nitride coating. <i>Scripta Materialia</i> , 2005, 52, 1269-1274.	2.6	36
136	Creep behavior of β -TiAl sheet material with differently spaced fully lamellar microstructures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002, 329-331, 840-846.	2.6	35
137	Channel cracking of β -NiAl thin films on Si substrates. <i>Acta Materialia</i> , 2004, 52, 2325-2336.	3.8	35
138	Hierarchical macroscopic fibrillar adhesives: <i>in situ</i> study of buckling and adhesion mechanisms on wavy substrates. <i>Bioinspiration and Biomimetics</i> , 2015, 10, 066002.	1.5	35
139	Microstructural Development and Densification During Hipping of Ceramics and Metals. <i>Powder Metallurgy</i> , 1988, 31, 63-69.	0.9	34
140	TEM investigations of the superdislocations and their interaction with particles in dispersion strengthened intermetallics. <i>Intermetallics</i> , 1999, 7, 423-436.	1.8	34
141	In Situ Observation Reveals Local Detachment Mechanisms and Suction Effects in Micropatterned Adhesives. <i>Advanced Functional Materials</i> , 2019, 29, 1807713.	7.8	34
142	In situ indentation testing of elastomers. <i>Acta Materialia</i> , 2008, 56, 4390-4401.	3.8	33
143	Single Macroscopic Pillars as Model System for Bioinspired Adhesives: Influence of Tip Dimension, Aspect Ratio, and Tilt Angle. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 7076-7083.	4.0	33
144	Mechanical properties of a single gecko seta. <i>International Journal of Materials Research</i> , 2008, 99, 1113-1118.	0.1	32

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145	Elevated temperature adhesion of bioinspired polymeric micropatterns to glass. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 76, 110-118.	1.5	32
146	Scaling of bird wings and feathers for efficient flight. <i>Science Advances</i> , 2019, 5, eaat4269.	4.7	32
147	Ordering versus disordering tendencies in mechanically alloyed (Ni _x Fe _{1-x})Al alloys. <i>Scripta Metallurgica Et Materialia</i> , 1994, 30, 1569-1574.	1.0	31
148	High temperature, low cycle fatigue behaviour of an aluminium alloy (Al-12Si-CuMgNi). <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000, 276, 283-287.	2.6	31
149	Facile, fast, and inexpensive synthesis of monodisperse amorphous Nickel-Phosphide nanoparticles of predefined size. <i>Chemical Communications</i> , 2011, 47, 4108.	2.2	31
150	Nanofibrillar Patterns on PET: The Influence of Plasma Parameters in Surface Morphology. <i>Plasma Processes and Polymers</i> , 2011, 8, 876-884.	1.6	31
151	Surface structure influences contact killing of bacteria by copper. <i>MicrobiologyOpen</i> , 2014, 3, 327-332.	1.2	31
152	Cohesive detachment of an elastic pillar from a dissimilar substrate. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 101, 30-43.	2.3	31
153	Dislocation dynamics in sub-micron confinement: recent progress in Cu thin film plasticity. <i>International Journal of Materials Research</i> , 2002, 93, 383-391.	0.8	31
154	Investigation of the stresses in continuous thin films and patterned lines by x-ray diffraction. <i>Applied Physics Letters</i> , 1994, 64, 1097-1099.	1.5	30
155	Comparison of mechanical properties and microstructure of Al(1 wt.%Si) and Al(1 wt.%Si, 0.5 wt.%Cu) thin films. <i>Thin Solid Films</i> , 1995, 263, 175-184.	0.8	30
156	Effects of thickness on the characteristic length scale of dislocation plasticity in Ag thin films. <i>Acta Materialia</i> , 2001, 49, 3597-3607.	3.8	29
157	Experimental Parameters Controlling Adhesion of Biomimetic Fibrillar Surfaces. <i>Journal of Adhesion</i> , 2009, 85, 646-661.	1.8	29
158	Current density and line width effects in electromigration: a new damage-based lifetime model. <i>Acta Materialia</i> , 1998, 46, 3733-3743.	3.8	28
159	Switchable double-sided micropatterned adhesives for selective fixation and detachment. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 123, 20-27.	2.3	28
160	Discrete contact mechanics of a fibrillar surface with backing layer interactions. <i>Journal of the Mechanics and Physics of Solids</i> , 2010, 58, 1571-1581.	2.3	27
161	Note: An adhesion measurement setup for bioinspired fibrillar surfaces using flat probes. <i>Review of Scientific Instruments</i> , 2012, 83, 016101.	0.6	27
162	Electromigration damage in mechanically deformed Al conductor lines: dislocations as fast diffusion paths. <i>Acta Materialia</i> , 2000, 48, 2199-2208.	3.8	26

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163	Dynamic observation of Al thin films plastically strained in a TEM. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 309-310, 463-467.	2.6	26
164	Temperature dependence of mechanical properties in ultrathin Au films with and without passivation. <i>Journal of Materials Research</i> , 2008, 23, 2406-2419.	1.2	26
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