

Joseph Burg

List of Publications by Year in descending order

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176
papers

6,562
citations

70961

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times ranked

8196
citing authors

#	ARTICLE	IF	CITATIONS
1	An Artificial Solid Electrolyte Interphase with High Li ⁺ Ion Conductivity, Mechanical Strength, and Flexibility for Stable Lithium Metal Anodes. <i>Advanced Materials</i> , 2017, 29, 1605531.	11.1	747
2	A Silica-Aerogel-Reinforced Composite Polymer Electrolyte with High Ionic Conductivity and High Modulus. <i>Advanced Materials</i> , 2018, 30, e1802661.	11.1	392
3	Design and understanding of encapsulated perovskite solar cells to withstand temperature cycling. <i>Energy and Environmental Science</i> , 2018, 11, 144-150.	15.6	314
4	Engineering Stress in Perovskite Solar Cells to Improve Stability. <i>Advanced Energy Materials</i> , 2018, 8, 1802139.	10.2	271
5	Topological supramolecular network enabled high-conductivity, stretchable organic bioelectronics. <i>Science</i> , 2022, 375, 1411-1417.	6.0	230
6	Interlayer adhesion in roll-to-roll processed flexible inverted polymer solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2012, 97, 171-175.	3.0	184
7	Adhesion and reliability of copper interconnects with Ta and TaN barrier layers. <i>Journal of Materials Research</i> , 2000, 15, 203-211.	1.2	165
8	Plasticity contributions to interface adhesion in thin-film interconnect structures. <i>Journal of Materials Research</i> , 2000, 15, 2758-2769.	1.2	164
9	Mechanical integrity of solution-processed perovskite solar cells. <i>Extreme Mechanics Letters</i> , 2016, 9, 353-358.	2.0	150
10	Local heating associated with crack tip plasticity in Zr-Ti-Ni-Cu-Be bulk amorphous metals. <i>Journal of Materials Research</i> , 1999, 14, 638-643.	1.2	149
11	Controlling Thin-Film Stress and Wrinkling during Perovskite Film Formation. <i>ACS Energy Letters</i> , 2018, 3, 1225-1232.	8.8	148
12	Effect of Cation Composition on the Mechanical Stability of Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1702116.	10.2	130
13	Broadband Emission with a Massive Stokes Shift from Sulfonium Pb-Br Hybrids. <i>Chemistry of Materials</i> , 2017, 29, 7083-7087.	3.2	123
14	An Intrinsically Stretchable High-Performance Polymer Semiconductor with Low Crystallinity. <i>Advanced Functional Materials</i> , 2019, 29, 1905340.	7.8	120
15	Decohesion Kinetics of PEDOT:PSS Conducting Polymer Films. <i>Advanced Functional Materials</i> , 2014, 24, 1325-1332.	7.8	110
16	Cohesion and device reliability in organic bulk heterojunction photovoltaic cells. <i>Solar Energy Materials and Solar Cells</i> , 2012, 99, 182-189.	3.0	91
17	Behavior of Cyclic Fatigue Cracks in Monolithic Silicon Nitride. <i>Journal of the American Ceramic Society</i> , 1995, 78, 2291-2300.	1.9	89
18	Moisture-assisted subcritical debonding of a polymer/metal interface. <i>Journal of Applied Physics</i> , 2002, 91, 1293-1303.	1.1	85

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19	Computational prediction of the molecular configuration of three-dimensional network polymers. <i>Nature Materials</i> , 2021, 20, 1422-1430.	13.3	84
20	Rapid Open-Air Fabrication of Perovskite Solar Modules. <i>Joule</i> , 2020, 4, 2675-2692.	11.7	78
21	Scaffold-reinforced perovskite compound solar cells. <i>Energy and Environmental Science</i> , 2017, 10, 2500-2508.	15.6	77
22	Influence of Bulky Organoammonium Halide Additive Choice on the Flexibility and Efficiency of Perovskite Light-Emitting Devices. <i>Advanced Functional Materials</i> , 2018, 28, 1802060.	7.8	76
23	Thermal-Disrupting Interface Mitigates Intercellular Cohesion Loss for Accurate Topical Antibacterial Therapy. <i>Advanced Materials</i> , 2020, 32, e1907030.	11.1	75
24	Superior mechanical properties of dense and porous organic/inorganic hybrid thin films. <i>Journal of Sol-Gel Science and Technology</i> , 2008, 48, 187-193.	1.1	68
25	Molecular Origins of the Mechanical Behavior of Hybrid Glasses. <i>Advanced Functional Materials</i> , 2010, 20, 2884-2892.	7.8	68
26	Environmental mechanisms of debonding in photovoltaic backsheets. <i>Solar Energy Materials and Solar Cells</i> , 2014, 120, 87-93.	3.0	66
27	High Performance Roll-to-Roll Produced Fullerene-Free Organic Photovoltaic Devices via Temperature-Controlled Slot Die Coating. <i>Advanced Functional Materials</i> , 2019, 29, 1805825.	7.8	64
28	Adhesion of benzocyclobutene-passivated silicon in epoxy layered structures. <i>Journal of Materials Research</i> , 2001, 16, 243-255.	1.2	62
29	Atmospheric Plasma Deposited Dense Silica Coatings on Plastics. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 6587-6598.	4.0	62
30	Rapid Aqueous Spray Fabrication of Robust NiO _x : A Simple and Scalable Platform for Efficient Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1803600.	10.2	62
31	Molecular-Scale Understanding of Cohesion and Fracture in P3HT:Fullerene Blends. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 9957-9964.	4.0	60
32	A catalytic alloy approach for graphene on epitaxial SiC on silicon wafers. <i>Journal of Materials Research</i> , 2015, 30, 609-616.	1.2	60
33	Molecular Intercalation and Cohesion of Organic Bulk Heterojunction Photovoltaic Devices. <i>Advanced Functional Materials</i> , 2013, 23, 2863-2871.	7.8	59
34	Entanglements in P3HT and their influence on thin-film mechanical properties: Insights from molecular dynamics simulations. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2015, 53, 934-942.	2.4	59
35	Fracture of nanoporous methyl silsesquioxane thin-film glasses. <i>Journal of Materials Research</i> , 2006, 21, 882-894.	1.2	58
36	Indentation fracture toughness of amorphous steel. <i>Journal of Materials Research</i> , 2005, 20, 783-786.	1.2	51

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37	Fundamental limits of material toughening in molecularly confined polymers. <i>Nature Materials</i> , 2016, 15, 294-298.	13.3	49
38	Adhesion of polymer thin-films and patterned lines. <i>International Journal of Fracture</i> , 2003, 119/120, 475-485.	1.1	48
39	Fracture and Subcritical Crack Growth Behavior of $Y_2Si_2Al_3O_{12}$ Glasses and Si_3N_4 Ceramics. <i>Journal of the American Ceramic Society</i> , 2000, 83, 585-596.	1.9	46
40	Cross-Linkable, Solvent-Resistant Fullerene Contacts for Robust and Efficient Perovskite Solar Cells with Increased J_{SC} and V_{OC} . <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 25896-25904.	4.0	45
41	Understanding age-induced alterations to the biomechanical barrier function of human stratum corneum. <i>Journal of Dermatological Science</i> , 2015, 80, 94-101.	1.0	44
42	Rapid route to efficient, scalable, and robust perovskite photovoltaics in air. <i>Energy and Environmental Science</i> , 2018, 11, 2102-2113.	15.6	43
43	Hole-Transport Layer Molecular Weight and Doping Effects on Perovskite Solar Cell Efficiency and Mechanical Behavior. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 23757-23764.	4.0	42
44	Mechanical Relaxation Time Scales in a $ZrTiNiCuBe$ Bulk Metallic Glass. <i>Journal of Materials Research</i> , 2002, 17, 1254-1257.	1.2	41
45	A Mechanomodulatory Device to Minimize Incisional Scar Formation. <i>Advances in Wound Care</i> , 2013, 2, 185-194.	2.6	41
46	Understanding mechanical behavior and reliability of organic electronic materials. <i>MRS Bulletin</i> , 2017, 42, 115-123.	1.7	39
47	Improved stability and efficiency of perovskite solar cells with submicron flexible barrier films deposited in air. <i>Journal of Materials Chemistry A</i> , 2017, 5, 22975-22983.	5.2	38
48	Synthesis and use of a hyper-connecting cross-linking agent in the hole-transporting layer of perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 19267-19279.	5.2	38
49	Comment on "Light-induced lattice expansion leads to high-efficiency perovskite solar cells". <i>Science</i> , 2020, 368, .	6.0	38
50	Adhesion and debonding kinetics of photovoltaic encapsulation in moist environments. <i>Progress in Photovoltaics: Research and Applications</i> , 2016, 24, 183-194.	4.4	37
51	Effects of UV cure on glass structure and fracture properties of nanoporous carbon-doped oxide thin films. <i>Journal of Applied Physics</i> , 2008, 104, 043513.	1.1	32
52	Molecular structure and fracture properties of $ZrOx$ /Epoxy silane hybrid films. <i>Journal of Sol-Gel Science and Technology</i> , 2010, 55, 360-368.	1.1	31
53	Subcritical Crack Growth Behavior of Borosilicate Glass under Cyclic Loads: Evidence of a Mechanical Fatigue Effect. <i>Journal of the American Ceramic Society</i> , 1997, 80, 773-776.	1.9	30
54	Effects of fatigue loading and PMMA precoating on the adhesion and subcritical debonding of prosthetic-PMMA interfaces. , 2000, 51, 172-183.		30

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55	Effect of solution pH on the accelerated cracking of nanoporous thin-film glasses. <i>Journal of Materials Research</i> , 2005, 20, 680-687.	1.2	30
56	Adhesion Measurement of Interfaces in Multilayer Interconnect Structures. <i>Materials Research Society Symposia Proceedings</i> , 1997, 473, 3.	0.1	29
57	Controlling Interdiffusion, Interfacial Composition, and Adhesion in Polymer Solar Cells. <i>Advanced Materials Interfaces</i> , 2014, 1, 1400135.	1.9	28
58	Highly Transparent Multifunctional Bilayer Coatings on Polymers Using Low-Temperature Atmospheric Plasma Deposition. <i>ACS Nano</i> , 2014, 8, 7186-7191.	7.3	27
59	Beyond Fullerenes: Indacenodithiophene-Based Organic Charge-Transport Layer toward Upscaling of Low-Cost Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 22143-22155.	4.0	27
60	Temperature dependence of positron annihilation in a Zr-Ti-Ni-Cu-Be bulk metallic glass. <i>Journal of Materials Research</i> , 2003, 18, 2021-2024.	1.2	25
61	Depth dependence of ultraviolet curing of organosilicate low-k thin films. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	25
62	Adhesion and degradation of hard coatings on poly (methyl methacrylate) substrates. <i>Thin Solid Films</i> , 2011, 519, 1907-1913.	0.8	25
63	Toward Sustainable Multifunctional Coatings Containing Nanocellulose in a Hybrid Glass Matrix. <i>ACS Nano</i> , 2018, 12, 5495-5503.	7.3	25
64	Open Air Plasma Deposition of Superhydrophilic Titania Coatings. <i>Advanced Functional Materials</i> , 2019, 29, 1806421.	7.8	25
65	Perspectives on intrinsic toughening strategies and passivation of perovskite films with organic additives. <i>Solar Energy Materials and Solar Cells</i> , 2020, 209, 110433.	3.0	25
66	Engineering the Mechanical Properties of Polymer Networks with Precise Doping of Primary Defects. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 42217-42224.	4.0	23
67	Open-Air Plasma-Deposited Multilayer Thin-Film Moisture Barriers. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 26405-26412.	4.0	22
68	Fatigue crack growth in micro-machined single-crystal silicon. <i>Journal of Materials Research</i> , 2004, 19, 2635-2640.	1.2	21
69	Hyperconnected molecular glass network architectures with exceptional elastic properties. <i>Nature Communications</i> , 2017, 8, 1019.	5.8	21
70	Tearing and reliability of photovoltaic module backsheets. <i>Progress in Photovoltaics: Research and Applications</i> , 2019, 27, 693-705.	4.4	21
71	Elastic and thermal expansion asymmetry in dense molecular materials. <i>Nature Materials</i> , 2016, 15, 974-980.	13.3	20
72	Conductive Transparent TiN _x /TiO ₂ Hybrid Films Deposited on Plastics in Air Using Atmospheric Plasma Processing. <i>Advanced Functional Materials</i> , 2014, 24, 3075-3081.	7.8	19

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73	Aqueous solution diffusion in hydrophobic nanoporous thin-film glasses. <i>Journal of Materials Research</i> , 2007, 22, 710-718.	1.2	18
74	Dual Precursor Atmospheric Plasma Deposition of Transparent Bilayer Protective Coatings on Plastics. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 17929-17934.	4.0	18
75	Role of Stress Factors on the Adhesion of Interfaces in R2R Fabricated Organic Photovoltaics. <i>Advanced Energy Materials</i> , 2016, 6, 1501927.	10.2	18
76	Interface Separation in Residually-Stressed Thin-Film Structures. <i>Journal of Materials Science</i> , 2003, 11, 309-317.	1.2	17
77	Toughening Thin-Film Structures with Ceramic-Like Amorphous Silicon Carbide Films. <i>Small</i> , 2014, 10, 253-257.	5.2	17
78	The effect of anneal, solar irradiation and humidity on the adhesion/cohesion properties of P3HT:PCBM based inverted polymer solar cells. , 2012, , .		15
79	The Role of Catalyst Adhesion in ALD-TiO ₂ Protection of Water Splitting Silicon Anodes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 37103-37109.	4.0	15
80	Time-dependant intercellular delamination of human stratum corneum. <i>Journal of Materials Science</i> , 2007, 42, 8986-8994.	1.7	14
81	Integration Challenges of Nanoporous Low Dielectric Constant Materials. <i>IEEE Transactions on Device and Materials Reliability</i> , 2009, 9, 509-515.	1.5	14
82	Crystallization kinetics of rapid spray plasma processed multiple cation perovskites in open air. <i>Journal of Materials Chemistry A</i> , 2020, 8, 169-176.	5.2	14
83	High-Throughput Open-Air Plasma Activation of Metal-Oxide Thin Films with Low Thermal Budget. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 37223-37232.	4.0	13
84	Progressive Debonding of Multilayer Interconnect Structures. <i>Materials Research Society Symposia Proceedings</i> , 1997, 473, 21.	0.1	12
85	Effects of an adhesion promoter on the debond resistance of a metal-polymethylmethacrylate interface. <i>Journal of Biomedical Materials Research Part B</i> , 2001, 54, 419-427.	3.0	11
86	Carbon-Bridge Incorporation in Organosilicate Coatings Using Oxidative Atmospheric Plasma Deposition. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 1309-1318.	4.0	11
87	Synthesis of Polyimides in Molecular-Scale Confinement for Low-Density Hybrid Nanocomposites. <i>Nano Letters</i> , 2017, 17, 7040-7044.	4.5	11
88	Measurement of the biomechanical function and structure of ex vivo drying skin using raman spectral analysis and its modulation with emollient mixtures. <i>Experimental Dermatology</i> , 2018, 27, 901-908.	1.4	11
89	Design of Ultrastiff Organosilicate Hybrid Glasses. <i>Advanced Functional Materials</i> , 2019, 29, 1904890.	7.8	11
90	Robust, High-Performing Maize-Perovskite-Based Solar Cells with Improved Stability. <i>ACS Applied Energy Materials</i> , 2021, 4, 11194-11203.	2.5	11

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91	Del1 Knockout Mice Developed More Severe Osteoarthritis Associated with Increased Susceptibility of Chondrocytes to Apoptosis. PLoS ONE, 2016, 11, e0160684.	1.1	11
92	Molecularâ€Controlled Fracture and Release of Templated Nanoporous Organosilicate Thin Films. Advanced Materials, 2008, 20, 3159-3164.	11.1	10
93	Nanoscale Interfacial Engineering for Flexible Barrier Films. Nano Letters, 2015, 15, 6751-6755.	4.5	10
94	Optically Transparent Protective Coating for Plastics Using Dual Spray and Atmospheric Plasma Deposition. Advanced Materials Interfaces, 2018, 5, 1701433.	1.9	10
95	Open-air spray plasma deposited UV-absorbing nanocomposite coatings. Nanoscale, 2018, 10, 14525-14533.	2.8	10
96	Lipid Loss Increases Stratum Corneum Stress and Drying Rates. Skin Pharmacology and Physiology, 2020, 33, 180-188.	1.1	10
97	Perspectives of Open-Air Processing to Enable Perovskite Solar Cell Manufacturing. Frontiers in Energy Research, 2021, 9, .	1.2	10
98	Bilayer metal gate electrodes with tunable work function: Adhesion and interface characterization. Journal of Applied Physics, 2010, 108, .	1.1	9
99	Effects of barrier composition and electroplating chemistry on adhesion and voiding in copper/dielectric diffusion barrier films. Journal of Applied Physics, 2011, 110, 044312.	1.1	9
100	Heterogeneous Solution Deposition of High-Performance Adhesive Hybrid Films. ACS Applied Materials & Interfaces, 2013, 5, 9891-9895.	4.0	9
101	Surface Chemical Functionalization to Achieve Extreme Levels of Molecular Confinement in Hybrid Nanocomposites. Advanced Functional Materials, 2019, 29, 1903132.	7.8	9
102	Mechanical and Microstructural Properties of Stratum Corneum. Materials Research Society Symposia Proceedings, 2002, 724, N2.7.1.	0.1	9
103	Electrical technique for monitoring crack growth in thin-film fracture mechanics specimens. Journal of Materials Research, 2004, 19, 3139-3144.	1.2	8
104	Tailoring UV cure depth profiles for optimal mechanical properties of organosilicate thin films. Applied Physics Letters, 2009, 95, 071902.	1.5	8
105	Moisture-assisted cracking and atomistic crack path meandering in oxidized hydrogenated amorphous silicon carbide films. Journal of Applied Physics, 2013, 113, .	1.1	8
106	Electrically Conductive Copper Coreâ€Shell Nanowires through Benzenethiol-Directed Assembly. Nano Letters, 2018, 18, 4900-4907.	4.5	8
107	Comprehensive characterization of the structure and properties of human stratum corneum relating to barrier function and skin hydration: modulation by a moisturizer formulation. Experimental Dermatology, 2021, 30, 1352-1357.	1.4	8
108	Benchmarking Four Point Bend Adhesion Testing: The Effect of Test Parameters On Adhesion Energy. AIP Conference Proceedings, 2005, , .	0.3	7

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109	Molecular Design for Moisture Insensitivity of Compositionally Graded Hybrid Films. ACS Applied Materials & Interfaces, 2015, 7, 6812-6818.	4.0	7
110	Using Unentangled Oligomers To Toughen Materials. ACS Applied Materials & Interfaces, 2018, 10, 27549-27554.	4.0	7
111	Molecular design of confined organic network hybrids with controlled deformation rate sensitivity and moisture resistance. Acta Materialia, 2018, 142, 162-171.	3.8	6
112	Scalable open-air deposition of compact ETL TiO ₂ on perovskite for fullerene-free solar cells. Journal of Materials Chemistry A, 2020, 8, 22858-22866.	5.2	6
113	Multiaxial Lenticular Stress-Strain Relationship of Native Myocardium is Preserved by Infarct-Induced Natural Heart Regeneration in Neonatal Mice. Scientific Reports, 2020, 10, 7319.	1.6	6
114	Low temperature open-air plasma deposition of amorphous tin oxide for perovskite solar cells. Thin Solid Films, 2021, 730, 138708.	0.8	6
115	Role of friction and loading parameters in four-point bend adhesion measurements. Journal of Materials Research, 2008, 23, 87-96.	1.2	5
116	Selective Deposition of Compositionally Graded Hybrid Adhesive Films. Advanced Materials Interfaces, 2015, 2, 1500262.	1.9	5
117	Organothiols-Based Hybrid Layer Strategy for High-Performance Copper Adhesion and Stress Migration via Simultaneous Oxide Reduction. Advanced Materials Interfaces, 2016, 3, 1600118.	1.9	5
118	Role of Carbon Bridge Length of Organosilicate Precursors on the Atmospheric Plasma Deposition of Transparent Bilayer Protective Coatings on Plastics. Plasma Processes and Polymers, 2016, 13, 1053-1060.	1.6	5
119	A graphene platform on silicon for the Internet of Everything. , 2018, , .		5
120	Low-temperature sprayed SnO ₂ nanocomposite films with enhanced hole blocking for efficient large area perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 21332-21339.	5.2	5
121	Adhesion and Progressive Debonding of Polymer/Metal Interfaces: Effects of Temperature and Environment. Materials Research Society Symposia Proceedings, 1999, 563, 263.	0.1	4
122	Effect of Moisture and Graded-Layer Mechanical Properties on Deformation and Interfacial Adhesion. Materials Research Society Symposia Proceedings, 2003, 778, 751.	0.1	4
123	Hybrid coupling layers for bulk metallic glass adhesion. Journal of Materials Research, 2013, 28, 3164-3169.	1.2	4
124	Effect of Mechanical Constraint on Tearing Energy of Polymer Membranes. Macromolecular Materials and Engineering, 2016, 301, 1096-1103.	1.7	4
125	The Effect of Fatigue on the Adhesion and Subcritical Debonding of Benzocyclobutene/Silicon Dioxide Interfaces. Materials Research Society Symposia Proceedings, 2000, 612, 131.	0.1	3
126	Fatigue Processes in Silicon MEMS Devices. Materials Research Society Symposia Proceedings, 2001, 682, 1.	0.1	3

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127	Multi-Scale Simulations of Interfacial Fracture of Nanoscale Thin-Film Structures: Effect of Length Scales and Residual Stresses. Materials Research Society Symposia Proceedings, 2003, 778, 931.	0.1	3
128	Debonding Under Fatigue Loading at Polymer/Inorganic Interfaces. Materials Research Society Symposia Proceedings, 2004, 821, 99.	0.1	3
129	Assessing the Effect of Die Sealing in Cu/Low-k Structures. , 2007, , .		3
130	Effects of e-beam curing on glass structure and mechanical properties of nanoporous organosilicate thin films. International Journal of Materials Research, 2010, 101, 228-235.	0.1	3
131	Moisture-assisted failure mechanisms in underfill epoxy/silicon systems for microelectronic packaging. , 2014, , .		3
132	Optical properties of metal oxynitride thin films grown with atmospheric plasma deposition. Journal Physics D: Applied Physics, 2016, 49, 395302.	1.3	3
133	Quantitative adhesion characterization of antireflective coatings in multijunction photovoltaics. Solar Energy Materials and Solar Cells, 2016, 153, 78-83.	3.0	3
134	The Effects of Terminal Groups on Elastic Asymmetries in Hybrid Molecular Materials. Journal of Physical Chemistry B, 2017, 121, 9753-9759.	1.2	3
135	Mechanically reliable hybrid organosilicate glasses for advanced interconnects. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2020, 38, 060601.	0.6	3
136	Ectoine disperses keratin and alters hydration kinetics in stratum corneum. Biochemistry and Biophysics Reports, 2021, 28, 101134.	0.7	3
137	Polyimide Hybrid Nanocomposites with Controlled Polymer Filling and Polymer-Matrix Interaction. ACS Applied Materials & Interfaces, 2022, 14, 28239-28246.	4.0	3
138	Environmental and Stress State Effects on Fracture and Fatigue Crack-Growth in Zr-Ti-Ni-Cu-Be Bulk Amorphous Metals. Materials Research Society Symposia Proceedings, 1998, 554, 355.	0.1	2
139	Fracture Properties of Porous MSSQ Films: Impact of Porogen Loading and Burnout. Materials Research Society Symposia Proceedings, 2006, 914, 1.	0.1	2
140	Quantitative Roadmap for Optimizing CMP of Ultra-Low-k Dielectrics. , 2008, , .		2
141	Solution chemistry effects on cracking and damage evolution during chemical-mechanical planarization. Journal of Materials Research, 2010, 25, 1904-1909.	1.2	2
142	Controlling kinetics of heterogeneous sol-gel solution for high-performance adhesive hybrid films. Journal of Sol-Gel Science and Technology, 2016, 77, 620-626.	1.1	2
143	Study of Crack Propagation at an Oxide/Polymer Interface Under Varying Loading Conditions. Materials Research Society Symposia Proceedings, 1999, 594, 407.	0.1	1
144	Atomic Force Microscopy Studies of Fracture Surfaces From Oxide / Polymer Interfaces. Materials Research Society Symposia Proceedings, 2000, 654, 271.	0.1	1

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145	Adhesion of Pressure Sensitive Adhesives with Applications in Transdermal Drug Delivery. Materials Research Society Symposia Proceedings, 2000, 662, 1.	0.1	1
146	Effect of Composition and Bead Settling on Debonding of Underfill Layers. Materials Research Society Symposia Proceedings, 2001, 682, 1.	0.1	1
147	Adhesion Mechanisms of Silane Adhesion Promoters in Microelectronic Packaging. Materials Research Society Symposia Proceedings, 2001, 682, 1.	0.1	1
148	Mechanical properties of hydrogenated amorphous silicon carbide thin films. , 2010, , .		1
149	Degradation of silicone encapsulants in CPV optics. , 2016, , .		1
150	Thermomechanical asymmetries in ULK dielectric glasses. , 2016, , .		1
151	Photovoltaic Devices: High Performance Roll-to-Roll Produced Fullerene-Free Organic Photovoltaic Devices via Temperature-Controlled Slot Die Coating (Adv. Funct. Mater. 6/2019). Advanced Functional Materials, 2019, 29, 1970037.	7.8	1
152	Self-aligned concentrating immersion-lens arrays for patterning and efficiency recovery in scaffold-reinforced perovskite solar cells. Applied Materials Today, 2020, 20, 100704.	2.3	1
153	Proceed with Caution: Mouse Deep Digit Flexor Tendon Injury Model. Plastic and Reconstructive Surgery - Global Open, 2021, 9, e3359.	0.3	1
154	Biomechanical Analysis of the Ross Procedure in an Ex Vivo Left Heart Simulator. World Journal for Pediatric & Congenital Heart Surgery, 2022, 13, 166-174.	0.3	1
155	Insights into the Mechanical Properties of Ultrathin Perfluoropolyether-Silane Coatings. Langmuir, 2022, 38, 6435-6442.	1.6	1
156	Gas cluster etching for the universal preparation of polymer composites for nano chemical and mechanical analysis with AFM. Applied Surface Science, 2022, 599, 153954.	3.1	1
157	Effects of Hydrogen on the Internal Time Scales in Zr-Ti-Ni-Cu-Be Bulk Metallic Glasses. Materials Research Society Symposia Proceedings, 2000, 644, 1031.	0.1	0
158	Fracture and Fatigue Crack Growth of Bulk Metallic Glass Alloys and their Composites. Materials Research Society Symposia Proceedings, 2000, 644, 951.	0.1	0
159	Studies of Silane Adhesion Promoters on Silica Filler Particles for use in Microelectronic Packaging. Materials Research Society Symposia Proceedings, 2001, 710, 1.	0.1	0
160	Elevated Temperature Fatigue Crack Propagation of a Zr-Ti-Cu-Ni-Be Bulk Metallic Glass. Materials Research Society Symposia Proceedings, 2002, 754, 1.	0.1	0
161	Transient Fatigue Crack-Growth Behavior and Damage Zones in Zr-Based Bulk Metallic Glass. Materials Research Society Symposia Proceedings, 2003, 806, 286.	0.1	0
162	Unusual fracture behavior of nanoporous polymeric thin-films. Materials Research Society Symposia Proceedings, 2005, 880, 1.	0.1	0

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163	The Role of Nanoscale Confinement of Adhesion Promoting Molecules on the Adhesion and Resistance to Moisture Attack at the Polymer/Silicon Nitride Interface. Materials Research Society Symposia Proceedings, 2006, 924, 1.	0.1	0
164	A Novel Bonding Technique Using Metal-Induced Crystallization of Amorphous Silicon. Materials Research Society Symposia Proceedings, 2007, 989, 1.	0.1	0
165	Thermomechanical reliability for emerging device technologies: Implications for ULK integration, 3-D structures and packaging. , 2009, , .		0
166	Can understanding the effect of solar UV radiation on skin's biomechanical function help prevent skin damage?. Expert Review of Dermatology, 2013, 8, 5-6.	0.3	0
167	Highly compressed nano-layers in epitaxial silicon carbide membranes for MEMs sensors. , 2014, , .		0
168	Low-cost, single-step hybrid bond/barrier films for Cu bondlines in advanced packaging. , 2015, , .		0
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