

# Joseph Burg

## List of Publications by Year in descending order

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176  
papers

6,562  
citations

71061

41  
h-index

69214

77  
g-index

176  
all docs

176  
docs citations

176  
times ranked

8196  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Topological supramolecular network enabled high-conductivity, stretchable organic bioelectronics. Science, 2022, 375, 1411-1417.	6.0	230
3	Insights into the Mechanical Properties of Ultrathin Perfluoropolyetherâ€“Silane Coatings. Langmuir, 2022, 38, 6435-6442.	1.6	1
4	Polyimide Hybrid Nanocomposites with Controlled Polymer Filling and Polymerâ€“Matrix Interaction. ACS Applied Materials & Interfaces, 2022, 14, 28239-28246.	4.0	3
5	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
6	Low-temperature sprayed SnO <sub>2</sub> 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
7	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
8	Perspectives of Open-Air Processing to Enable Perovskite Solar Cell Manufacturing. Frontiers in Energy Research, 2021, 9, .	1.2	10
9	Computational prediction of the molecular configuration of three-dimensional network polymers. Nature Materials, 2021, 20, 1422-1430.	13.3	84
10	Low temperature open-air plasma deposition of amorphous tin oxide for perovskite solar cells. Thin Solid Films, 2021, 730, 138708.	0.8	6
11	Robust, High-Performing Maizeâ€“Perovskite-Based Solar Cells with Improved Stability. ACS Applied Energy Materials, 2021, 4, 11194-11203.	2.5	11
12	Ectoine disperses keratin and alters hydration kinetics in stratum corneum. Biochemistry and Biophysics Reports, 2021, 28, 101134.	0.7	3
13	Proceed with Caution: Mouse Deep Digit Flexor Tendon Injury Model. Plastic and Reconstructive Surgery - Global Open, 2021, 9, e3359.	0.3	1
14	Crystallization kinetics of rapid spray plasma processed multiple cation perovskites in open air. Journal of Materials Chemistry A, 2020, 8, 169-176.	5.2	14
15	Lipid Loss Increases Stratum Corneum Stress and Drying Rates. Skin Pharmacology and Physiology, 2020, 33, 180-188.	1.1	10
16	Rapid Open-Air Fabrication of Perovskite Solar Modules. Joule, 2020, 4, 2675-2692.	11.7	78
17	Scalable open-air deposition of compact ETL TiO <sub>2</sub> on perovskite for fullerene-free solar cells. Journal of Materials Chemistry A, 2020, 8, 22858-22866.	5.2	6
18	Mechanically reliable hybrid organosilicate glasses for advanced interconnects. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2020, 38, 060601.	0.6	3

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19	Open-Air Plasma-Deposited Multilayer Thin-Film Moisture Barriers. ACS Applied Materials & Interfaces, 2020, 12, 26405-26412.	4.0	22
20	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
21	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
22	Perspectives on intrinsic toughening strategies and passivation of perovskite films with organic additives. Solar Energy Materials and Solar Cells, 2020, 209, 110433.	3.0	25
23	Thermal-Disrupting Interface Mitigates Intercellular Cohesion Loss for Accurate Topical Antibacterial Therapy. Advanced Materials, 2020, 32, e1907030.	11.1	75
24	Comment on "Light-induced lattice expansion leads to high-efficiency perovskite solar cells". Science, 2020, 368, .	6.0	38
25	Open-Air Plasma-Deposited Multilayer Thin Film Moisture Barriers for Perovskite Solar Cells. , 2020, , .		0
26	Design of Mechanically Reliable ULK Glasses. , 2020, , .		0
27	An Intrinsically Stretchable High-Performance Polymer Semiconductor with Low Crystallinity. Advanced Functional Materials, 2019, 29, 1905340.	7.8	120
28	Design of Ultrastiff Organosilicate Hybrid Glasses. Advanced Functional Materials, 2019, 29, 1904890.	7.8	11
29	Surface Chemical Functionalization to Achieve Extreme Levels of Molecular Confinement in Hybrid Nanocomposites. Advanced Functional Materials, 2019, 29, 1903132.	7.8	9
30	Hole-Transport Layer Molecular Weight and Doping Effects on Perovskite Solar Cell Efficiency and Mechanical Behavior. ACS Applied Materials & Interfaces, 2019, 11, 23757-23764.	4.0	42
31	Tearing and reliability of photovoltaic module backsheets. Progress in Photovoltaics: Research and Applications, 2019, 27, 693-705.	4.4	21
32	Open Air Plasma Deposition of Superhydrophilic Titania Coatings. Advanced Functional Materials, 2019, 29, 1806421.	7.8	25
33	Rapid Aqueous Spray Fabrication of Robust NiO <sub>x</sub> : A Simple and Scalable Platform for Efficient Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1803600.	10.2	62
34	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
35	High Performance Roll-to-Roll Produced Fullerene-Free Organic Photovoltaic Devices via Temperature-Controlled Slot Die Coating. Advanced Functional Materials, 2019, 29, 1805825.	7.8	64
36	Optically Transparent Protective Coating for Plastics Using Dual Spray and Atmospheric Plasma Deposition. Advanced Materials Interfaces, 2018, 5, 1701433.	1.9	10

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37	Controlling Thin-Film Stress and Wrinkling during Perovskite Film Formation. ACS Energy Letters, 2018, 3, 1225-1232.	8.8	148
38	Design and understanding of encapsulated perovskite solar cells to withstand temperature cycling. Energy and Environmental Science, 2018, 11, 144-150.	15.6	314
39	Molecular design of confined organic network hybrids with controlled deformation rate sensitivity and moisture resistance. Acta Materialia, 2018, 142, 162-171.	3.8	6
40	Effect of Cation Composition on the Mechanical Stability of Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1702116.	10.2	130
41	Nonaffine Deformations in ULK Dielectric Glasses. , 2018, , .		0
42	High-Throughput Open-Air Plasma Activation of Metal-Oxide Thin Films with Low Thermal Budget. ACS Applied Materials & Interfaces, 2018, 10, 37223-37232.	4.0	13
43	The Role of Catalyst Adhesion in ALD-TiO <sub>2</sub> Protection of Water Splitting Silicon Anodes. ACS Applied Materials & Interfaces, 2018, 10, 37103-37109.	4.0	15
44	Engineering Stress in Perovskite Solar Cells to Improve Stability. Advanced Energy Materials, 2018, 8, 1802139.	10.2	271
45	Rapid route to efficient, scalable, and robust perovskite photovoltaics in air. Energy and Environmental Science, 2018, 11, 2102-2113.	15.6	43
46	Measurement of the biomechanical function and structure of ex vivo drying skin using raman spectral analysis and its modulation with emollient mixtures. Experimental Dermatology, 2018, 27, 901-908.	1.4	11
47	A Silicaâ€Aerogelâ€Reinforced Composite Polymer Electrolyte with High Ionic Conductivity and High Modulus. Advanced Materials, 2018, 30, e1802661.	11.1	392
48	A graphene platform on silicon for the Internet of Everything. , 2018, , .		5
49	Using Unentangled Oligomers To Toughen Materials. ACS Applied Materials & Interfaces, 2018, 10, 27549-27554.	4.0	7
50	Open-air spray plasma deposited UV-absorbing nanocomposite coatings. Nanoscale, 2018, 10, 14525-14533.	2.8	10
51	Electrically Conductive Copper Coreâ€Shell Nanowires through Benzenethiol-Directed Assembly. Nano Letters, 2018, 18, 4900-4907.	4.5	8
52	Beyond Fullerenes: Indacenodithiophene-Based Organic Charge-Transport Layer toward Upscaling of Low-Cost Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 22143-22155.	4.0	27
53	Influence of Bulky Organoâ€Ammonium Halide Additive Choice on the Flexibility and Efficiency of Perovskite Lightâ€Emitting Devices. Advanced Functional Materials, 2018, 28, 1802060.	7.8	76
54	Toward Sustainable Multifunctional Coatings Containing Nanocellulose in a Hybrid Glass Matrix. ACS Nano, 2018, 12, 5495-5503.	7.3	25

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55	Understanding mechanical behavior and reliability of organic electronic materials. MRS Bulletin, 2017, 42, 115-123.	1.7	39
56	An Artificial Solid Electrolyte Interphase with High Li <sup>+</sup> Ion Conductivity, Mechanical Strength, and Flexibility for Stable Lithium Metal Anodes. Advanced Materials, 2017, 29, 1605531.	11.1	747
57	Improved stability and efficiency of perovskite solar cells with submicron flexible barrier films deposited in air. Journal of Materials Chemistry A, 2017, 5, 22975-22983.	5.2	38
58	Synthesis of Polyimides in Molecular-Scale Confinement for Low-Density Hybrid Nanocomposites. Nano Letters, 2017, 17, 7040-7044.	4.5	11
59	Hyperconnected molecular glass network architectures with exceptional elastic properties. Nature Communications, 2017, 8, 1019.	5.8	21
60	Scaffold-reinforced perovskite compound solar cells. Energy and Environmental Science, 2017, 10, 2500-2508.	15.6	77
61	Broadband Emission with a Massive Stokes Shift from Sulfonium Pb <sup>2+</sup> Br Hybrids. Chemistry of Materials, 2017, 29, 7083-7087.	3.2	123
62	Synthesis and use of a hyper-connecting cross-linking agent in the hole-transporting layer of perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 19267-19279.	5.2	38
63	The Effects of Terminal Groups on Elastic Asymmetries in Hybrid Molecular Materials. Journal of Physical Chemistry B, 2017, 121, 9753-9759.	1.2	3
64	Engineering the Mechanical Properties of Polymer Networks with Precise Doping of Primary Defects. ACS Applied Materials & Interfaces, 2017, 9, 42217-42224.	4.0	23
65	Effect of Mechanical Constraint on Tearing Energy of Polymer Membranes. Macromolecular Materials and Engineering, 2016, 301, 1096-1103.	1.7	4
66	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
67	Optical properties of metal oxynitride thin films grown with atmospheric plasma deposition. Journal Physics D: Applied Physics, 2016, 49, 395302.	1.3	3
68	Cross-linkable styrene-functionalized fullerenes as electron-selective contacts for robust and efficient perovskite solar cells. , 2016, , .		0
69	Degradation of silicone encapsulants in CPV optics. , 2016, , .		1
70	Adhesion of antireflective coatings in multijunction photovoltaics. , 2016, , .		0
71	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
72	Quantitative adhesion characterization of antireflective coatings in multijunction photovoltaics. Solar Energy Materials and Solar Cells, 2016, 153, 78-83.	3.0	3

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73	Cross-Linkable, Solvent-Resistant Fullerene Contacts for Robust and Efficient Perovskite Solar Cells with Increased $J_{SC}$ and $V_{OC}$ . ACS Applied Materials & Interfaces, 2016, 8, 25896-25904.	4.0	45
74	Thermomechanical asymmetries in ULK dielectric glasses. , 2016, , .		1
75	Transforming the P4 process to enhance mechanical and fracture properties of ULKs. , 2016, , .		0
76	Spray deposition of compositionally graded hybrid layers for high-performance adhesion. , 2016, , .		0
77	Elastic and thermal expansion asymmetry in dense molecular materials. Nature Materials, 2016, 15, 974-980.	13.3	20
78	Mechanical integrity of solution-processed perovskite solar cells. Extreme Mechanics Letters, 2016, 9, 353-358.	2.0	150
79	Role of Stress Factors on the Adhesion of Interfaces in R2R Fabricated Organic Photovoltaics. Advanced Energy Materials, 2016, 6, 1501927.	10.2	18
80	Fundamental limits of material toughening in molecularly confined polymers. Nature Materials, 2016, 15, 294-298.	13.3	49
81	Adhesion and debonding kinetics of photovoltaic encapsulation in moist environments. Progress in Photovoltaics: Research and Applications, 2016, 24, 183-194.	4.4	37
82	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
83	Carbon-Bridge Incorporation in Organosilicate Coatings Using Oxidative Atmospheric Plasma Deposition. ACS Applied Materials & Interfaces, 2016, 8, 1309-1318.	4.0	11
84	Del1 Knockout Mice Developed More Severe Osteoarthritis Associated with Increased Susceptibility of Chondrocytes to Apoptosis. PLoS ONE, 2016, 11, e0160684.	1.1	11
85	Low-cost, single-step hybrid bond/barrier films for Cu bondlines in advanced packaging. , 2015, , .		0
86	Entanglements in P3HT and their influence on thin-film mechanical properties: Insights from molecular dynamics simulations. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 934-942.	2.4	59
87	Selective Deposition of Compositionally Graded Hybrid Adhesive Films. Advanced Materials Interfaces, 2015, 2, 1500262.	1.9	5
88	Molecular-Scale Understanding of Cohesion and Fracture in P3HT:Fullerene Blends. ACS Applied Materials & Interfaces, 2015, 7, 9957-9964.	4.0	60
89	Molecular Design for Moisture Insensitivity of Compositionally Graded Hybrid Films. ACS Applied Materials & Interfaces, 2015, 7, 6812-6818.	4.0	7
90	A catalytic alloy approach for graphene on epitaxial SiC on silicon wafers. Journal of Materials Research, 2015, 30, 609-616.	1.2	60

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91	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
92	Dual Precursor Atmospheric Plasma Deposition of Transparent Bilayer Protective Coatings on Plastics. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 17929-17934.	4.0	18
93	Nanoscale Interfacial Engineering for Flexible Barrier Films. <i>Nano Letters</i> , 2015, 15, 6751-6755.	4.5	10
94	Decohesion Kinetics of PEDOT:PSS Conducting Polymer Films. <i>Advanced Functional Materials</i> , 2014, 24, 1325-1332.	7.8	110
95	Conductive Transparent TiN <sub>x</sub> /TiO <sub>2</sub> Hybrid Films Deposited on Plastics in Air Using Atmospheric Plasma Processing. <i>Advanced Functional Materials</i> , 2014, 24, 3075-3081.	7.8	19
96	Toughening Thin-Film Structures with Ceramic-Like Amorphous Silicon Carbide Films. <i>Small</i> , 2014, 10, 253-257.	5.2	17
97	Highly compressed nano-layers in epitaxial silicon carbide membranes for MEMs sensors. , 2014, , .		0
98	Moisture-assisted failure mechanisms in underfill epoxy/silicon systems for microelectronic packaging. , 2014, , .		3
99	Controlling Interdiffusion, Interfacial Composition, and Adhesion in Polymer Solar Cells. <i>Advanced Materials Interfaces</i> , 2014, 1, 1400135.	1.9	28
100	Highly Transparent Multifunctional Bilayer Coatings on Polymers Using Low-Temperature Atmospheric Plasma Deposition. <i>ACS Nano</i> , 2014, 8, 7186-7191.	7.3	27
101	Environmental mechanisms of debonding in photovoltaic backsheets. <i>Solar Energy Materials and Solar Cells</i> , 2014, 120, 87-93.	3.0	66
102	Molecular Intercalation and Cohesion of Organic Bulk Heterojunction Photovoltaic Devices. <i>Advanced Functional Materials</i> , 2013, 23, 2863-2871.	7.8	59
103	Heterogeneous Solution Deposition of High-Performance Adhesive Hybrid Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 9891-9895.	4.0	9
104	Can understanding the effect of solar UV radiation on skin's biomechanical function help prevent skin damage?. <i>Expert Review of Dermatology</i> , 2013, 8, 5-6.	0.3	0
105	Hybrid coupling layers for bulk metallic glass adhesion. <i>Journal of Materials Research</i> , 2013, 28, 3164-3169.	1.2	4
106	A Mechanomodulatory Device to Minimize Incisional Scar Formation. <i>Advances in Wound Care</i> , 2013, 2, 185-194.	2.6	41
107	Moisture-assisted cracking and atomistic crack path meandering in oxidized hydrogenated amorphous silicon carbide films. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	8
108	The effect of anneal, solar irradiation and humidity on the adhesion/cohesion properties of P3HT:PCBM based inverted polymer solar cells. , 2012, , .		15

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109	Atmospheric Plasma Deposited Dense Silica Coatings on Plastics. ACS Applied Materials & Interfaces, 2012, 4, 6587-6598.	4.0	62
110	Interlayer adhesion in roll-to-roll processed flexible inverted polymer solar cells. Solar Energy Materials and Solar Cells, 2012, 97, 171-175.	3.0	184
111	Cohesion and device reliability in organic bulk heterojunction photovoltaic cells. Solar Energy Materials and Solar Cells, 2012, 99, 182-189.	3.0	91
112	Adhesion and degradation of hard coatings on poly (methyl methacrylate) substrates. Thin Solid Films, 2011, 519, 1907-1913.	0.8	25
113	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
114	Molecular structure and fracture properties of ZrOX/Epoxy silane hybrid films. Journal of Sol-Gel Science and Technology, 2010, 55, 360-368.	1.1	31
115	Molecular Origins of the Mechanical Behavior of Hybrid Glasses. Advanced Functional Materials, 2010, 20, 2884-2892.	7.8	68
116	Solution chemistry effects on cracking and damage evolution during chemical-mechanical planarization. Journal of Materials Research, 2010, 25, 1904-1909.	1.2	2
117	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
118	Bilayer metal gate electrodes with tunable work function: Adhesion and interface characterization. Journal of Applied Physics, 2010, 108, .	1.1	9
119	Mechanical properties of hydrogenated amorphous silicon carbide thin films. , 2010, , .		1
120	Tailoring UV cure depth profiles for optimal mechanical properties of organosilicate thin films. Applied Physics Letters, 2009, 95, 071902.	1.5	8
121	Thermomechanical reliability for emerging device technologies: Implications for ULK integration, 3-D structures and packaging. , 2009, , .		0
122	Integration Challenges of Nanoporous Low Dielectric Constant Materials. IEEE Transactions on Device and Materials Reliability, 2009, 9, 509-515.	1.5	14
123	Superior mechanical properties of dense and porous organic/inorganic hybrid thin films. Journal of Sol-Gel Science and Technology, 2008, 48, 187-193.	1.1	68
124	Molecularâ€Controlled Fracture and Release of Templated Nanoporous Organosilicate Thin Films. Advanced Materials, 2008, 20, 3159-3164.	11.1	10
125	Quantitative Roadmap for Optimizing CMP of Ultra-Low-k Dielectrics. , 2008, , .		2
126	Role of friction and loading parameters in four-point bend adhesion measurements. Journal of Materials Research, 2008, 23, 87-96.	1.2	5



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127	Effects of UV cure on glass structure and fracture properties of nanoporous carbon-doped oxide thin films. Journal of Applied Physics, 2008, 104, 043513.	1.1	32
128	Depth dependence of ultraviolet curing of organosilicate low-k thin films. Journal of Applied Physics, 2008, 103, .	1.1	25
129	A Novel Bonding Technique Using Metal-Induced Crystallization of Amorphous Silicon. Materials Research Society Symposia Proceedings, 2007, 989, 1.	0.1	0
130	Aqueous solution diffusion in hydrophobic nanoporous thin-film glasses. Journal of Materials Research, 2007, 22, 710-718.	1.2	18
131	Assessing the Effect of Die Sealing in Cu/Low-k Structures. , 2007, , .		3
132	Time-dependant intercellular delamination of human stratum corneum. Journal of Materials Science, 2007, 42, 8986-8994.	1.7	14
133	Fracture Properties of Porous MSSQ Films: Impact of Porogen Loading and Burnout. Materials Research Society Symposia Proceedings, 2006, 914, 1.	0.1	2
134	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
135	Fracture of nanoporous methyl silsesquioxane thin-film glasses. Journal of Materials Research, 2006, 21, 882-894.	1.2	58
136	Benchmarking Four Point Bend Adhesion Testing: The Effect of Test Parameters On Adhesion Energy. AIP Conference Proceedings, 2005, , .	0.3	7
137	Effect of solution pH on the accelerated cracking of nanoporous thin-film glasses. Journal of Materials Research, 2005, 20, 680-687.	1.2	30
138	Indentation fracture toughness of amorphous steel. Journal of Materials Research, 2005, 20, 783-786.	1.2	51
139	Unusual fracture behavior of nanoporous polymeric thin-films. Materials Research Society Symposia Proceedings, 2005, 880, 1.	0.1	0
140	Electrical technique for monitoring crack growth in thin-film fracture mechanics specimens. Journal of Materials Research, 2004, 19, 3139-3144.	1.2	8
141	Debonding Under Fatigue Loading at Polymer/Inorganic Interfaces. Materials Research Society Symposia Proceedings, 2004, 821, 99.	0.1	3
142	Fatigue crack growth in micro-machined single-crystal silicon. Journal of Materials Research, 2004, 19, 2635-2640.	1.2	21
143	Adhesion of polymer thin-films and patterned lines. International Journal of Fracture, 2003, 119/120, 475-485.	1.1	48
144	Interface Separation in Residually-Stressed Thin-Film Structures. Journal of Materials Science, 2003, 11, 309-317.	1.2	17

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145	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
146	Temperature dependence of positron annihilation in a Zr-Ti-Ni-Cu-Be bulk metallic glass. Journal of Materials Research, 2003, 18, 2021-2024.	1.2	25
147	Effect of Moisture and Graded-Layer Mechanical Properties on Deformation and Interfacial Adhesion. Materials Research Society Symposia Proceedings, 2003, 778, 751.	0.1	4
148	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
149	Moisture-assisted subcritical debonding of a polymer/metal interface. Journal of Applied Physics, 2002, 91, 1293-1303.	1.1	85
150	Mechanical Relaxation Time Scales in a Zr-Ti-Ni-Cu-Be Bulk Metallic Glass. Journal of Materials Research, 2002, 17, 1254-1257.	1.2	41
151	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
152	Mechanical and Microstructural Properties of Stratum Corneum. Materials Research Society Symposia Proceedings, 2002, 724, N2.7.1.	0.1	9
153	Fatigue Processes in Silicon MEMS Devices. Materials Research Society Symposia Proceedings, 2001, 682, 1.	0.1	3
154	Effect of Composition and Bead Settling on Debonding of Underfill Layers. Materials Research Society Symposia Proceedings, 2001, 682, 1.	0.1	1
155	Adhesion Mechanisms of Silane Adhesion Promoters in Microelectronic Packaging. Materials Research Society Symposia Proceedings, 2001, 682, 1.	0.1	1
156	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
157	Effects of an adhesion promoter on the debond resistance of a metal-polymethylmethacrylate interface. Journal of Biomedical Materials Research Part B, 2001, 54, 419-427.	3.0	11
158	Adhesion of benzocyclobutene-passivated silicon in epoxy layered structures. Journal of Materials Research, 2001, 16, 243-255.	1.2	62
159	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
160	Fracture and Fatigue Crack Growth of Bulk Metallic Glass Alloys and their Composites. Materials Research Society Symposia Proceedings, 2000, 644, 951.	0.1	0
161	Atomic Force Microscopy Studies of Fracture Surfaces From Oxide / Polymer Interfaces. Materials Research Society Symposia Proceedings, 2000, 654, 271.	0.1	1
162	Adhesion of Pressure Sensitive Adhesives with Applications in Transdermal Drug Delivery. Materials Research Society Symposia Proceedings, 2000, 662, 1.	0.1	1

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163	Effects of fatigue loading and PMMA precoating on the adhesion and subcritical debonding of prosthetic-PMMA interfaces. , 2000, 51, 172-183.		30
164	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
165	Plasticity contributions to interface adhesion in thin-film interconnect structures. Journal of Materials Research, 2000, 15, 2758-2769.	1.2	164
166	Adhesion and reliability of copper interconnects with Ta and TaN barrier layers. Journal of Materials Research, 2000, 15, 203-211.	1.2	165
167	Fracture and Subcritical Crack Growth Behavior of $Y_3Si_2Al_5O_{14}$ Glasses and $Si_3N_4$ Ceramics. Journal of the American Ceramic Society, 2000, 83, 585-596.	1.9	46
168	Local heating associated with crack tip plasticity in Zr-Ti-Ni-Cu-Be bulk amorphous metals. Journal of Materials Research, 1999, 14, 638-643.	1.2	149
169	Adhesion and Progressive Debonding of Polymer/Metal Interfaces: Effects of Temperature and Environment. Materials Research Society Symposia Proceedings, 1999, 563, 263.	0.1	4
170	Study of Crack Propagation at an Oxide/Polymer Interface Under Varying Loading Conditions. Materials Research Society Symposia Proceedings, 1999, 594, 407.	0.1	1
171	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
172	Adhesion Measurement of Interfaces in Multilayer Interconnect Structures. Materials Research Society Symposia Proceedings, 1997, 473, 3.	0.1	29
173	Subcritical Crack Growth Behavior of Borosilicate Glass under Cyclic Loads: Evidence of a Mechanical Fatigue Effect. Journal of the American Ceramic Society, 1997, 80, 773-776.	1.9	30
174	Progressive Debonding of Multilayer Interconnect Structures. Materials Research Society Symposia Proceedings, 1997, 473, 21.	0.1	12
175	Behavior of Cyclic Fatigue Cracks in Monolithic Silicon Nitride. Journal of the American Ceramic Society, 1995, 78, 2291-2300.	1.9	89
176	Polymer-Assisted Perovskite Assembly: from Lab-Scale to Roll-to-Roll printed Solar Cells. , 0, , .		0