Joseph Burg

List of Publications by Year in Descending Order

160 papers	4,771 citations	37 h-index	65 g-index
176 ext. papers	5,574 ext. citations	9.4 avg, IF	5.89 L-index

#	Paper	IF	Citations
160	Biomechanical Analysis of the Ross Procedure in an Ex Vivo Left Heart Simulator.. *World Journal for Pediatric & Congenital Heart Surgery*, **2022**, 13, 166-174	1.1	1
159	Topological supramolecular network enabled high-conductivity, stretchable organic bioelectronics.. *Science*, **2022**, 375, 1411-1417	33.3	29
158	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	4	1
157	Perspectives of Open-Air Processing to Enable Perovskite Solar Cell Manufacturing. *Frontiers in Energy Research*, **2021**, 9,	3.8	1
156	Computational prediction of the molecular configuration of three-dimensional network polymers. *Nature Materials*, **2021**, 20, 1422-1430	27	32
155	Low-temperature sprayed SnOx nanocomposite films with enhanced hole blocking for efficient large area perovskite solar cells. *Journal of Materials Chemistry A*, **2021**, 9, 21332-21339	13	3
154	Low temperature open-air plasma deposition of amorphous tin oxide for perovskite solar cells. *Thin Solid Films*, **2021**, 730, 138708	2.2	5
153	Ectoine disperses keratin and alters hydration kinetics in stratum corneum. *Biochemistry and Biophysics Reports*, **2021**, 28, 101134	2.2	1
152	Proceed with Caution: Mouse Deep Digit Flexor Tendon Injury Model. *Plastic and Reconstructive Surgery - Global Open*, **2021**, 9, e3359	1.2	
151	Open-Air Plasma-Deposited Multilayer Thin-Film Moisture Barriers. *ACS Applied Materials & Interfaces*, **2020**, 12, 26405-26412	9.5	13
150	Multiaxial Lenticular Stress-Strain Relationship of Native Myocardium is Preserved by Infarct-Induced Natural Heart Regeneration in Neonatal Mice. *Scientific Reports*, **2020**, 10, 7319	4.9	6
149	Self-aligned concentrating immersion-lens arrays for patterning and efficiency recovery in scaffold-reinforced perovskite solar cells. *Applied Materials Today*, **2020**, 20, 100704	6.6	1
148	Perspectives on intrinsic toughening strategies and passivation of perovskite films with organic additives. *Solar Energy Materials and Solar Cells*, **2020**, 209, 110433	6.4	11
147	Thermal-Disrupting Interface Mitigates Intercellular Cohesion Loss for Accurate Topical Antibacterial Therapy. *Advanced Materials*, **2020**, 32, e1907030	24	37
146	Crystallization kinetics of rapid spray plasma processed multiple cation perovskites in open air. *Journal of Materials Chemistry A*, **2020**, 8, 169-176	13	9
145	Lipid Loss Increases Stratum Corneum Stress and Drying Rates. *Skin Pharmacology and Physiology*, **2020**, 33, 180-188	3	6
144	Rapid Open-Air Fabrication of Perovskite Solar Modules. *Joule*, **2020**, 4, 2675-2692	27.8	38

143	Scalable open-air deposition of compact ETL TiOx on perovskite for fullerene-free solar cells. *Journal of Materials Chemistry A*, **2020**, 8, 22858-22866	13	5
142	Mechanically reliable hybrid organosilicate glasses for advanced interconnects. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2020**, 38, 060601	1.3	2
141	Comment on "Light-induced lattice expansion leads to high-efficiency perovskite solar cells". *Science*, **2020**, 368,	33.3	26
140	Design of Ultrastiff Organosilicate Hybrid Glasses. *Advanced Functional Materials*, **2019**, 29, 1904890	15.6	5
139	Surface Chemical Functionalization to Achieve Extreme Levels of Molecular Confinement in Hybrid Nanocomposites. *Advanced Functional Materials*, **2019**, 29, 1903132	15.6	3
138	Hole-Transport Layer Molecular Weight and Doping Effects on Perovskite Solar Cell Efficiency and Mechanical Behavior. *ACS Applied Materials & Interfaces*, **2019**, 11, 23757-23764	9.5	24
137	Tearing and reliability of photovoltaic module backsheets. *Progress in Photovoltaics: Research and Applications*, **2019**, 27, 693-705	6.8	10
136	Open Air Plasma Deposition of Superhydrophilic Titania Coatings. *Advanced Functional Materials*, **2019**, 29, 1806421	15.6	14
135	Rapid Aqueous Spray Fabrication of Robust NiOx: A Simple and Scalable Platform for Efficient Perovskite Solar Cells. *Advanced Energy Materials*, **2019**, 9, 1803600	21.8	46
134	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	15.6	1
133	An Intrinsically Stretchable High-Performance Polymer Semiconductor with Low Crystallinity. *Advanced Functional Materials*, **2019**, 29, 1905340	15.6	63
132	High Performance Roll-to-Roll Produced Fullerene-Free Organic Photovoltaic Devices via Temperature-Controlled Slot Die Coating. *Advanced Functional Materials*, **2019**, 29, 1805825	15.6	49
131	Optically Transparent Protective Coating for Plastics Using Dual Spray and Atmospheric Plasma Deposition. *Advanced Materials Interfaces*, **2018**, 5, 1701433	4.6	9
130	Controlling Thin-Film Stress and Wrinkling during Perovskite Film Formation. *ACS Energy Letters*, **2018**, 3, 1225-1232	20.1	108
129	Design and understanding of encapsulated perovskite solar cells to withstand temperature cycling. *Energy and Environmental Science*, **2018**, 11, 144-150	35.4	229
128	Molecular design of confined organic network hybrids with controlled deformation rate sensitivity and moisture resistance. *Acta Materialia*, **2018**, 142, 162-171	8.4	5
127	A graphene platform on silicon for the Internet of Everything **2018**,		3
126	Using Unentangled Oligomers To Toughen Materials. *ACS Applied Materials & Interfaces*, **2018**, 10, 27549-27554	9.5	2

125	Open-air spray plasma deposited UV-absorbing nanocomposite coatings. *Nanoscale*, **2018**, 10, 14525-14533	7.7	5
124	Electrically Conductive Copper Core-Shell Nanowires through Benzenethiol-Directed Assembly. *Nano Letters*, **2018**, 18, 4900-4907	11.5	3
123	Beyond Fullerenes: Indacenodithiophene-Based Organic Charge-Transport Layer toward Upscaling of Low-Cost Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2018**, 10, 22143-22155	9.5	20
122	Influence of Bulky Organo-Ammonium Halide Additive Choice on the Flexibility and Efficiency of Perovskite Light-Emitting Devices. *Advanced Functional Materials*, **2018**, 28, 1802060	15.6	53
121	Toward Sustainable Multifunctional Coatings Containing Nanocellulose in a Hybrid Glass Matrix. *ACS Nano*, **2018**, 12, 5495-5503	16.7	20
120	Effect of Cation Composition on the Mechanical Stability of Perovskite Solar Cells. *Advanced Energy Materials*, **2018**, 8, 1702116	21.8	84
119	High-Throughput Open-Air Plasma Activation of Metal-Oxide Thin Films with Low Thermal Budget. *ACS Applied Materials & Interfaces*, **2018**, 10, 37223-37232	9.5	10
118	The Role of Catalyst Adhesion in ALD-TiO Protection of Water Splitting Silicon Anodes. *ACS Applied Materials & Interfaces*, **2018**, 10, 37103-37109	9.5	13
117	Engineering Stress in Perovskite Solar Cells to Improve Stability. *Advanced Energy Materials*, **2018**, 8, 1802139	21.8	148
116	Rapid route to efficient, scalable, and robust perovskite photovoltaics in air. *Energy and Environmental Science*, **2018**, 11, 2102-2113	35.4	32
115	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	4	8
114	A Silica-Aerogel-Reinforced Composite Polymer Electrolyte with High Ionic Conductivity and High Modulus. *Advanced Materials*, **2018**, 30, e1802661	24	242
113	Understanding mechanical behavior and reliability of organic electronic materials. *MRS Bulletin*, **2017**, 42, 115-123	3.2	31
112	An Artificial Solid Electrolyte Interphase with High Li-Ion Conductivity, Mechanical Strength, and Flexibility for Stable Lithium Metal Anodes. *Advanced Materials*, **2017**, 29, 1605531	24	581
111	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	13	29
110	Synthesis of Polyimides in Molecular-Scale Confinement for Low-Density Hybrid Nanocomposites. *Nano Letters*, **2017**, 17, 7040-7044	11.5	6
109	Hyperconnected molecular glass network architectures with exceptional elastic properties. *Nature Communications*, **2017**, 8, 1019	17.4	18
108	Scaffold-reinforced perovskite compound solar cells. *Energy and Environmental Science*, **2017**, 10, 2500-2508	35.4	50

107	Broadband Emission with a Massive Stokes Shift from Sulfonium PbBr Hybrids. *Chemistry of Materials*, **2017**, 29, 7083-7087	9.6	89
106	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	13	24
105	The Effects of Terminal Groups on Elastic Asymmetries in Hybrid Molecular Materials. *Journal of Physical Chemistry B*, **2017**, 121, 9753-9759	3.4	2
104	Engineering the Mechanical Properties of Polymer Networks with Precise Doping of Primary Defects. *ACS Applied Materials & Interfaces*, **2017**, 9, 42217-42224	9.5	19
103	Thermomechanical asymmetries in ULK dielectric glasses **2016**,		1
102	Elastic and thermal expansion asymmetry in dense molecular materials. *Nature Materials*, **2016**, 15, 974-80	27	14
101	Mechanical integrity of solution-processed perovskite solar cells. *Extreme Mechanics Letters*, **2016**, 9, 353-358	3.9	104
100	Role of Stress Factors on the Adhesion of Interfaces in R2R Fabricated Organic Photovoltaics. *Advanced Energy Materials*, **2016**, 6, 1501927	21.8	14
99	Fundamental limits of material toughening in molecularly confined polymers. *Nature Materials*, **2016**, 15, 294-8	27	34
98	Adhesion and debonding kinetics of photovoltaic encapsulation in moist environments. *Progress in Photovoltaics: Research and Applications*, **2016**, 24, 183-194	6.8	30
97	Controlling kinetics of heterogeneous sol-gel solution for high-performance adhesive hybrid films. *Journal of Sol-Gel Science and Technology*, **2016**, 77, 620-626	2.3	2
96	Carbon-Bridge Incorporation in Organosilicate Coatings Using Oxidative Atmospheric Plasma Deposition. *ACS Applied Materials & Interfaces*, **2016**, 8, 1309-18	9.5	8
95	Del1 Knockout Mice Developed More Severe Osteoarthritis Associated with Increased Susceptibility of Chondrocytes to Apoptosis. *PLoS ONE*, **2016**, 11, e0160684	3.7	6
94	Effect of Mechanical Constraint on Tearing Energy of Polymer Membranes. *Macromolecular Materials and Engineering*, **2016**, 301, 1096-1103	3.9	3
93	Organothiol-Based Hybrid-Layer Strategy for High-Performance Copper Adhesion and Stress-Migration via Simultaneous Oxide Reduction. *Advanced Materials Interfaces*, **2016**, 3, 1600118	4.6	1
92	Optical properties of metal oxynitride thin films grown with atmospheric plasma deposition. *Journal Physics D: Applied Physics*, **2016**, 49, 395302	3	3
91	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	3.4	5
90	Quantitative adhesion characterization of antireflective coatings in multijunction photovoltaics. *Solar Energy Materials and Solar Cells*, **2016**, 153, 78-83	6.4	2

89	Cross-Linkable, Solvent-Resistant Fullerene Contacts for Robust and Efficient Perovskite Solar Cells with Increased J and V. *ACS Applied Materials & Interfaces*, **2016**, 8, 25896-25904	9.5	39
88	Molecular-Scale Understanding of Cohesion and Fracture in P3HT:Fullerene Blends. *ACS Applied Materials & Interfaces*, **2015**, 7, 9957-64	9.5	48
87	Molecular design for moisture insensitivity of compositionally graded hybrid films. *ACS Applied Materials & Interfaces*, **2015**, 7, 6812-8	9.5	6
86	A catalytic alloy approach for graphene on epitaxial SiC on silicon wafers. *Journal of Materials Research*, **2015**, 30, 609-616	2.5	43
85	Understanding age-induced alterations to the biomechanical barrier function of human stratum corneum. *Journal of Dermatological Science*, **2015**, 80, 94-101	4.3	32
84	Dual Precursor Atmospheric Plasma Deposition of Transparent Bilayer Protective Coatings on Plastics. *ACS Applied Materials & Interfaces*, **2015**, 7, 17929-34	9.5	17
83	Nanoscale Interfacial Engineering for Flexible Barrier Films. *Nano Letters*, **2015**, 15, 6751-5	11.5	10
82	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	2.6	49
81	Selective Deposition of Compositionally Graded Hybrid Adhesive Films. *Advanced Materials Interfaces*, **2015**, 2, 1500262	4.6	4
80	Moisture-assisted failure mechanisms in underfill epoxy/silicon systems for microelectronic packaging **2014**,		3
79	Controlling Interdiffusion, Interfacial Composition, and Adhesion in Polymer Solar Cells. *Advanced Materials Interfaces*, **2014**, 1, 1400135	4.6	24
78	Highly transparent multifunctional bilayer coatings on polymers using low-temperature atmospheric plasma deposition. *ACS Nano*, **2014**, 8, 7186-91	16.7	23
77	Environmental mechanisms of debonding in photovoltaic backsheets. *Solar Energy Materials and Solar Cells*, **2014**, 120, 87-93	6.4	56
76	Decohesion Kinetics of PEDOT:PSS Conducting Polymer Films. *Advanced Functional Materials*, **2014**, 24, 1325-1332	15.6	85
75	Conductive Transparent TiNx/TiO2 Hybrid Films Deposited on Plastics in Air Using Atmospheric Plasma Processing. *Advanced Functional Materials*, **2014**, 24, 3075-3081	15.6	17
74	Toughening thin-film structures with ceramic-like amorphous silicon carbide films. *Small*, **2014**, 10, 253-711		14
73	Molecular Intercalation and Cohesion of Organic Bulk Heterojunction Photovoltaic Devices. *Advanced Functional Materials*, **2013**, 23, 2863-2871	15.6	55
72	Heterogeneous solution deposition of high-performance adhesive hybrid films. *ACS Applied Materials & Interfaces*, **2013**, 5, 9891-5	9.5	7

71	Hybrid coupling layers for bulk metallic glass adhesion. *Journal of Materials Research*, **2013**, 28, 3164-3169	2.5	3
70	A Mechanomodulatory Device to Minimize Incisional Scar Formation. *Advances in Wound Care*, **2013**, 2, 185-194	4.8	24
69	Moisture-assisted cracking and atomistic crack path meandering in oxidized hydrogenated amorphous silicon carbide films. *Journal of Applied Physics*, **2013**, 113, 083521	2.5	8
68	Interlayer adhesion in roll-to-roll processed flexible inverted polymer solar cells. *Solar Energy Materials and Solar Cells*, **2012**, 97, 171-175	6.4	173
67	Cohesion and device reliability in organic bulk heterojunction photovoltaic cells. *Solar Energy Materials and Solar Cells*, **2012**, 99, 182-189	6.4	87
66	Atmospheric plasma deposited dense silica coatings on plastics. *ACS Applied Materials & Interfaces*, **2012**, 4, 6587-98	9.5	54
65	The effect of anneal, solar irradiation and humidity on the adhesion/cohesion properties of P3HT:PCBM based inverted polymer solar cells **2012**,		11
64	Adhesion and degradation of hard coatings on poly (methyl methacrylate) substrates. *Thin Solid Films*, **2011**, 519, 1907-1913	2.2	24
63	Effects of barrier composition and electroplating chemistry on adhesion and voiding in copper/dielectric diffusion barrier films. *Journal of Applied Physics*, **2011**, 110, 044312	2.5	8
62	Solution chemistry effects on cracking and damage evolution during chemical-mechanical planarization. *Journal of Materials Research*, **2010**, 25, 1904-1909	2.5	2
61	Effects of e-beam curing on glass structureand mechanical properties of nanoporous organosilicate thin films. *International Journal of Materials Research*, **2010**, 101, 228-235	0.5	3
60	Bilayer metal gate electrodes with tunable work function: Adhesion and interface characterization. *Journal of Applied Physics*, **2010**, 108, 053704	2.5	8
59	Mechanical properties of hydrogenated amorphous silicon carbide thin films **2010**,		1
58	Molecular structure and fracture properties of ZrOX/Epoxysilane hybrid films. *Journal of Sol-Gel Science and Technology*, **2010**, 55, 360-368	2.3	26
57	Molecular Origins of the Mechanical Behavior of Hybrid Glasses. *Advanced Functional Materials*, **2010**, 20, 2884-2892	15.6	62
56	Tailoring UV cure depth profiles for optimal mechanical properties of organosilicate thin films. *Applied Physics Letters*, **2009**, 95, 071902	3.4	7
55	Integration Challenges of Nanoporous Low Dielectric Constant Materials. *IEEE Transactions on Device and Materials Reliability*, **2009**, 9, 509-515	1.6	13
54	Quantitative Roadmap for Optimizing CMP of Ultra-Low-k Dielectrics **2008**,		2

53	Role of friction and loading parameters in four-point bend adhesion measurements. *Journal of Materials Research*, **2008**, 23, 87-96	2.5	5
52	Effects of UV cure on glass structure and fracture properties of nanoporous carbon-doped oxide thin films. *Journal of Applied Physics*, **2008**, 104, 043513	2.5	30
51	Depth dependence of ultraviolet curing of organosilicate low-k thin films. *Journal of Applied Physics* , **2008**, 103, 064108	2.5	21
50	Superior mechanical properties of dense and porous organic/inorganic hybrid thin films. *Journal of Sol-Gel Science and Technology*, **2008**, 48, 187-193	2.3	62
49	Molecular-Controlled Fracture and Release of Templated Nanoporous Organosilicate Thin Films. *Advanced Materials*, **2008**, 20, 3159-3164	24	8
48	Assessing the Effect of Die Sealing in Cu/Low-k Structures **2007**,		2
47	Time-dependant intercellular delamination of human stratum corneum. *Journal of Materials Science* , **2007**, 42, 8986-8994	4.3	12
46	A Novel Bonding Technique Using Metal-Induced Crystallization of Amorphous Silicon. *Materials Research Society Symposia Proceedings*, **2007**, 989, 1		
45	Aqueous solution diffusion in hydrophobic nanoporous thin-film glasses. *Journal of Materials Research*, **2007**, 22, 710-718	2.5	18
44	Fracture Properties of Porous MSSQ Films: Impact of Porogen Loading and Burnout. *Materials Research Society Symposia Proceedings*, **2006**, 914, 1		2
43	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		
42	Fracture of nanoporous methyl silsesquioxane thin-film glasses. *Journal of Materials Research*, **2006** , 21, 882-894	2.5	54
41	Benchmarking Four Point Bend Adhesion Testing: The Effect of Test Parameters On Adhesion Energy. *AIP Conference Proceedings*, **2005**,	0	5
40	Effect of solution pH on the accelerated cracking of nanoporous thin-film glasses. *Journal of Materials Research*, **2005**, 20, 680-687	2.5	28
39	Indentation fracture toughness of amorphous steel. *Journal of Materials Research*, **2005**, 20, 783-786	2.5	43
38	Unusual fracture behavior of nanoporous polymeric thin-films. *Materials Research Society Symposia Proceedings*, **2005**, 880, 1		
37	Electrical technique for monitoring crack growth in thin-film fracture mechanics specimens. *Journal of Materials Research*, **2004**, 19, 3139-3144	2.5	6
36	Debonding Under Fatigue Loading at Polymer/Inorganic Interfaces. *Materials Research Society Symposia Proceedings*, **2004**, 821, 99		1

35	Fatigue crack growth in micro-machined single-crystal silicon. *Journal of Materials Research*, **2004**, 19, 2635-2640	2.5	18
34	Fracture and Subcritical Crack-Growth Behavior of Y-Si-Al-O-N Glasses and Si3N4 Ceramics. *Journal of the American Ceramic Society*, **2004**, 83, 585-596	3.8	39
33	Effect of Moisture and Graded-Layer Mechanical Properties on Deformation and Interfacial Adhesion. *Materials Research Society Symposia Proceedings*, **2003**, 778, 751		1
32	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		2
31	Adhesion of polymer thin-films and patterned lines. *International Journal of Fracture*, **2003**, 119/120, 475-485	2.3	44
30	Interface Separation in Residually-Stressed Thin-Film Structures. *Journal of Materials Science*, **2003**, 11, 309-317		15
29	Transient Fatigue Crack-Growth Behavior and Damage Zones in Zr-Based Bulk Metallic Glass. *Materials Research Society Symposia Proceedings*, **2003**, 806, 286		
28	Temperature dependence of positron annihilation in a Zr-Ti-Ni-Cu-Be bulk metallic glass. *Journal of Materials Research*, **2003**, 18, 2021-2024	2.5	22
27	Moisture-assisted subcritical debonding of a polymer/metal interface. *Journal of Applied Physics*, **2002**, 91, 1293-1303	2.5	71
26	Mechanical relaxation time scales in a Zr-Ti-Ni-Cu-Be bulk metallic glass. *Journal of Materials Research*, **2002**, 17, 1254-1257	2.5	36
25	Elevated Temperature Fatigue Crack Propagation of a Zr-Ti-Cu-Ni-Be Bulk Metallic Glass. *Materials Research Society Symposia Proceedings*, **2002**, 754, 1		
24	Mechanical and Microstructural Properties of Stratum Corneum. *Materials Research Society Symposia Proceedings*, **2002**, 724, N2.7.1		6
23	Effects of an adhesion promoter on the debond resistance of a metal-polymethylmethacrylate interface. *Journal of Biomedical Materials Research Part B*, **2001**, 54, 419-27		10
22	Adhesion of benzocyclobutene-passivated silicon in epoxy layered structures. *Journal of Materials Research*, **2001**, 16, 243-255	2.5	56
21	Fatigue Processes in Silicon MEMS Devices. *Materials Research Society Symposia Proceedings*, **2001**, 682, 1		3
20	Effect of Composition and Bead Settling on Debonding of Underfill Layers. *Materials Research Society Symposia Proceedings*, **2001**, 682, 1		1
19	Adhesion Mechanisms of Silane Adhesion Promoters in Microelectronic Packaging. *Materials Research Society Symposia Proceedings*, **2001**, 682, 1		1
18	Studies of Silane Adhesion Promoters on Silica Filler Particles for use in Microelectronic Packaging. *Materials Research Society Symposia Proceedings*, **2001**, 710, 1		

17	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		
16	Fracture and Fatigue Crack Growth of Bulk Metallic Glass Alloys and their Composites. *Materials Research Society Symposia Proceedings*, **2000**, 644, 951		
15	Atomic Force Microscopy Studies of Fracture Surfaces From Oxide / Polymer Interfaces. *Materials Research Society Symposia Proceedings*, **2000**, 654, 271		
14	Adhesion of Pressure Sensitive Adhesives with Applications in Transdermal Drug Delivery. *Materials Research Society Symposia Proceedings*, **2000**, 662, 1		
13	Effects of fatigue loading and PMMA precoating on the adhesion and subcritical debonding of prosthetic-PMMA interfaces. *Journal of Biomedical Materials Research Part B*, **2000**, 51, 172-83		27
12	The Effect of Fatigue on the Adhesion and Subcritical Debonding of Benzocyclobutene/Silicon Dioxide Interfaces. *Materials Research Society Symposia Proceedings*, **2000**, 612, 131		2
11	Plasticity contributions to interface adhesion in thin-film interconnect structures. *Journal of Materials Research*, **2000**, 15, 2758-2769	2.5	145
10	Adhesion and reliability of copper interconnects with Ta and TaN barrier layers. *Journal of Materials Research*, **2000**, 15, 203-211	2.5	136
9	Local heating associated with crack tip plasticity in Zr-Ti-Ni-Cu-Be bulk amorphous metals. *Journal of Materials Research*, **1999**, 14, 638-643	2.5	135
8	Adhesion and Progressive Debonding of Polymer/Metal Interfaces: Effects of Temperature and Environment. *Materials Research Society Symposia Proceedings*, **1999**, 563, 263		3
7	Study of Crack Propagation at an Oxide/Polymer Interface Under Varying Loading Conditions. *Materials Research Society Symposia Proceedings*, **1999**, 594, 407		1
6	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		2
5	Adhesion Measurement of Interfaces in Multilayer Interconnect Structures. *Materials Research Society Symposia Proceedings*, **1997**, 473, 3		22
4	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	3.8	27
3	Progressive Debonding of Multilayer Interconnect Structures. *Materials Research Society Symposia Proceedings*, **1997**, 473, 21		9
2	Behavior of Cyclic Fatigue Cracks in Monolithic Silicon Nitride. *Journal of the American Ceramic Society*, **1995**, 78, 2291-2300	3.8	79
1	Design of Mechanically Reliable ULK Glasses		