Jennifer A Lewis

List of Publications by Citations

240 papers	34,244 citations	88 h-index	184 g-index
250 ext. papers	39,165 ext. citations	12.7 avg, IF	7.86 L-index

#	Paper	IF	Citations
240	Biomimetic 4D printing. *Nature Materials*, **2016**, 15, 413-8	27	1682
239	3D bioprinting of vascularized, heterogeneous cell-laden tissue constructs. *Advanced Materials*, **2014**, 26, 3124-30	24	1418
238	Self-healing materials with microvascular networks. *Nature Materials*, **2007**, 6, 581-5	27	1198
237	An integrated design and fabrication strategy for entirely soft, autonomous robots. *Nature*, **2016**, 536, 451-5	50.4	1073
236	Embedded 3D printing of strain sensors within highly stretchable elastomers. *Advanced Materials*, **2014**, 26, 6307-12	24	1051
235	3D-printing of lightweight cellular composites. *Advanced Materials*, **2014**, 26, 5930-5	24	976
234	Omnidirectional printing of flexible, stretchable, and spanning silver microelectrodes. *Science*, **2009**, 323, 1590-3	33.3	961
233	Direct Ink Writing of 3D Functional Materials. *Advanced Functional Materials*, **2006**, 16, 2193-2204	15.6	946
232	Colloidal Processing of Ceramics. *Journal of the American Ceramic Society*, **2004**, 83, 2341-2359	3.8	930
231	Three-dimensional bioprinting of thick vascularized tissues. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 3179-84	11.5	927
230	3D printing of interdigitated Li-ion microbattery architectures. *Advanced Materials*, **2013**, 25, 4539-43	24	879
229	Printing soft matter in three dimensions. *Nature*, **2016**, 540, 371-378	50.4	806
228	Chaotic mixing in three-dimensional microvascular networks fabricated by direct-write assembly. *Nature Materials*, **2003**, 2, 265-71	27	554
227	Pen-on-paper flexible electronics. *Advanced Materials*, **2011**, 23, 3426-30	24	550
226	Omnidirectional printing of 3D microvascular networks. *Advanced Materials*, **2011**, 23, H178-83	24	536
225	Ultrathin silicon solar microcells for semitransparent, mechanically flexible and microconcentrator module designs. *Nature Materials*, **2008**, 7, 907-15	27	534
224	Instrumented cardiac microphysiological devices via multimaterial three-dimensional printing. *Nature Materials*, **2017**, 16, 303-308	27	501

223	Direct Ink Writing of Three-Dimensional Ceramic Structures. *Journal of the American Ceramic Society*, **2006**, 89, 3599-3609	3.8	482
222	Colloidal Inks for Directed Assembly of 3-D Periodic Structures. *Langmuir*, **2002**, 18, 5429-5437	4	453
221	Conformal printing of electrically small antennas on three-dimensional surfaces. *Advanced Materials*, **2011**, 23, 1335-40	24	402
220	Multistable Architected Materials for Trapping Elastic Strain Energy. *Advanced Materials*, **2015**, 27, 4296-301	24	391
219	Bioprinting of 3D Convoluted Renal Proximal Tubules on Perfusable Chips. *Scientific Reports*, **2016**, 6, 34845	4.9	371
218	Voxelated soft matter via multimaterial multinozzle 3D printing. *Nature*, **2019**, 575, 330-335	50.4	356
217	Hybrid 3D Printing of Soft Electronics. *Advanced Materials*, **2017**, 29, 1703817	24	344
216	Cellulose Nanocrystal Inks for 3D Printing of Textured Cellular Architectures. *Advanced Functional Materials*, **2017**, 27, 1604619	15.6	334
215	Reactive silver inks for patterning high-conductivity features at mild temperatures. *Journal of the American Chemical Society*, **2012**, 134, 1419-21	16.4	324
214	3D Printing of Liquid Crystal Elastomeric Actuators with Spatially Programed Nematic Order. *Advanced Materials*, **2018**, 30, 1706164	24	308
213	Self-Healing Materials with Interpenetrating Microvascular Networks. *Advanced Materials*, **2009**, 21, 4143-4147	24	305
212	Microperiodic structures: direct writing of three-dimensional webs. *Nature*, **2004**, 428, 386	50.4	305
211	Long range interactions in nanoscale science. *Reviews of Modern Physics*, **2010**, 82, 1887-1944	40.5	304
210	Direct writing in three dimensions. *Materials Today*, **2004**, 7, 32-39	21.8	301
209	Capacitive soft strain sensors via multicore-shell fiber printing. *Advanced Materials*, **2015**, 27, 2440-6	24	300
208	Biomanufacturing of organ-specific tissues with high cellular density and embedded vascular channels. *Science Advances*, **2019**, 5, eaaw2459	14.3	298
207	Flow-enhanced vascularization and maturation of kidney organoids in vitro. *Nature Methods*, **2019**, 16, 255-262	21.6	294
206	Directed Colloidal Assembly of 3D Periodic Structures. *Advanced Materials*, **2002**, 14, 1279-1283	24	283

205	Topology Optimized Architectures with Programmable Poisson's Ratio over Large Deformations. *Advanced Materials*, **2015**, 27, 5523-7	24	275
204	Biocompatible Silk Printed Optical Waveguides. *Advanced Materials*, **2009**, 21, 2411-2415	24	260
203	Soft Somatosensitive Actuators via Embedded 3D Printing. *Advanced Materials*, **2018**, 30, e1706383	24	248
202	Direct-Write Assembly of 3D Hydrogel Scaffolds for Guided Cell Growth. *Advanced Materials*, **2009**, 21, 2407-2410	24	237
201	Microfluidic assembly of homogeneous and Janus colloid-filled hydrogel granules. *Langmuir*, **2006**, 22, 8618-22	4	236
200	Delivery of Two-Part Self-Healing Chemistry via Microvascular Networks. *Advanced Functional Materials*, **2009**, 19, 1399-1405	15.6	233
199	Rapid and Versatile Photonic Annealing of Graphene Inks for Flexible Printed Electronics. *Advanced Materials*, **2015**, 27, 6683-8	24	220
198	Direct-Write Assembly of Microperiodic Silk Fibroin Scaffolds for Tissue Engineering Applications. *Advanced Functional Materials*, **2008**, 18, 1883-1889	15.6	219
197	Microfluidic Printheads for Multimaterial 3D Printing of Viscoelastic Inks. *Advanced Materials*, **2015**, 27, 3279-84	24	216
196	Concentrated hydroxyapatite inks for direct-write assembly of 3-D periodic scaffolds. *Biomaterials*, **2005**, 26, 5632-9	15.6	208
195	Nanoparticle halos: a new colloid stabilization mechanism. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 8950-4	11.5	208
194	3D Printing of Customized Li-Ion Batteries with Thick Electrodes. *Advanced Materials*, **2018**, 30, e1703027	24	201
193	Laser-assisted direct ink writing of planar and 3D metal architectures. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 6137-42	11.5	195
192	Inkjet printing of conductive inks with high lateral resolution on omniphobic "R(F) paper" for paper-based electronics and MEMS. *Advanced Materials*, **2014**, 26, 4677-82	24	189
191	3D Microperiodic Hydrogel Scaffolds for Robust Neuronal Cultures. *Advanced Functional Materials*, **2011**, 21, 47-54	15.6	188
190	Fugitive Inks for Direct-Write Assembly of Three-Dimensional Microvascular Networks. *Advanced Materials*, **2005**, 17, 395-399	24	188
189	Device fabrication: Three-dimensional printed electronics. *Nature*, **2015**, 518, 42-3	50.4	173
188	Two- and three-dimensional folding of thin film single-crystalline silicon for photovoltaic power applications. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 20149-54	11.5	170

187	Sol-Gel Inks for Direct-Write Assembly of Functional Oxides. *Advanced Materials*, **2007**, 19, 3485-3489	24	166
186	Stable propagation of mechanical signals in soft media using stored elastic energy. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 9722-7	11.5	162
185	Active mixing of complex fluids at the microscale. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 12293-8	11.5	160
184	Direct-Write Assembly of Three-Dimensional Photonic Crystals: Conversion of Polymer Scaffolds to Silicon Hollow-Woodpile Structures. *Advanced Materials*, **2006**, 18, 461-465	24	157
183	Renal reabsorption in 3D vascularized proximal tubule models. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 5399-5404	11.5	155
182	Patterning colloidal films via evaporative lithography. *Physical Review Letters*, **2007**, 98, 148301	7.4	155
181	Multidimensional architectures for functional optical devices. *Advanced Materials*, **2010**, 22, 1084-101	24	154
180	Untethered soft robotic matter with passive control of shape morphing and propulsion. *Science Robotics*, **2019**, 4,	18.6	150
179	In vivo bone response to 3D periodic hydroxyapatite scaffolds assembled by direct ink writing. *Journal of Biomedical Materials Research - Part A*, **2007**, 83, 747-58	5.4	145
178	Rotational 3D printing of damage-tolerant composites with programmable mechanics. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 1198-1203	11.5	140
177	Direct-write assembly of ceramics from colloidal inks. *Current Opinion in Solid State and Materials Science*, **2002**, 6, 245-250	12	140
176	Architected cellular ceramics with tailored stiffness via direct foam writing. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 1832-1837	11.5	138
175	Shape-shifting structured lattices via multimaterial 4D printing. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 20856-20862	11.5	138
174	Encapsulated liquid sorbents for carbon dioxide capture. *Nature Communications*, **2015**, 6, 6124	17.4	130
173	Nanoparticle Inks for Directed Assembly of Three-Dimensional Periodic Structures. *Advanced Materials*, **2003**, 15, 1639-1643	24	129
172	Transparent conductive grids via direct writing of silver nanoparticle inks. *Nanoscale*, **2011**, 3, 2700-2	7.7	128
171	Colloidal ribbons and rings from Janus magnetic rods. *Nature Communications*, **2013**, 4, 1516	17.4	124
170	BINDER REMOVAL FROM CERAMICS. *Annual Review of Materials Research*, **1997**, 27, 147-173		123

169	Binder Distribution in Ceramic Greenware During Thermolysis. *Journal of the American Ceramic Society*, **1989**, 72, 1192-1199	3.8	122
168	Comb Polymer Architecture Effects on the Rheological Property Evolution of Concentrated Cement Suspensions. *Journal of the American Ceramic Society*, **2004**, 87, 1643-1652	3.8	121
167	Printed origami structures. *Advanced Materials*, **2010**, 22, 2251-4	24	120
166	Direct-write assembly of 3D silk/hydroxyapatite scaffolds for bone co-cultures. *Advanced Healthcare Materials*, **2012**, 1, 729-35	10.1	116
165	Poly(acrylic acid)Poly(ethylene oxide) Comb Polymer Effects on BaTiO3 Nanoparticle Suspension Stability. *Journal of the American Ceramic Society*, **2004**, 87, 181-186	3.8	111
164	Nanoparticle Engineering of Complex Fluid Behavior. *Langmuir*, **2001**, 17, 8414-8421	4	110
163	High-Power Aqueous Zinc-Ion Batteries for Customized Electronic Devices. *ACS Nano*, **2018**, 12, 11838-11846	13.7	110
162	Structural optimization of 3D-printed synthetic spider webs for high strength. *Nature Communications*, **2015**, 6, 7038	17.4	107
161	3D Printable and Reconfigurable Liquid Crystal Elastomers with Light-Induced Shape Memory via Dynamic Bond Exchange. *Advanced Materials*, **2020**, 32, e1905682	24	107
160	High-throughput printing via microvascular multinozzle arrays. *Advanced Materials*, **2013**, 25, 96-102	24	106
159	Viscoplastic Matrix Materials for Embedded 3D Printing. *ACS Applied Materials & Interfaces*, **2018**, 10, 23353-23361	9.5	97
158	Direct-write assembly of biomimetic microvascular networks for efficient fluid transport. *Soft Matter*, **2010**, 6, 739-742	3.6	95
157	Nanoparticle-mediated epitaxial assembly of colloidal crystals on patterned substrates. *Langmuir*, **2004**, 20, 5262-70	4	94
156	Aggregation Effects on the Compressive Flow Properties and Drying Behavior of Colloidal Silica Suspensions. *Journal of the American Ceramic Society*, **1999**, 82, 2345-2358	3.8	90
155	Screen Printing of Highly Loaded Silver Inks on Plastic Substrates Using Silicon Stencils. *ACS Applied Materials & Interfaces*, **2015**, 7, 12619-24	9.5	89
154	Microfabricated Deposition Nozzles for Direct-Write Assembly of Three-Dimensional Periodic Structures. *Advanced Materials*, **2005**, 17, 289-293	24	89
153	Acoustophoretic printing. *Science Advances*, **2018**, 4, eaat1659	14.3	88
152	Printing mesoscale architectures. *MRS Bulletin*, **2015**, 40, 943-950	3.2	86

151	Polyelectrolyte Effects on the Rheological Properties of Concentrated Cement Suspensions. *Journal of the American Ceramic Society*, **2004**, 83, 1905-1913	3.8	86
150	Rheological Property and Stress Development during Drying of Tape-Cast Ceramic Layers. *Journal of the American Ceramic Society*, **1996**, 79, 3225-3234	3.8	85
149	Direct-Write Fabrication of Pb(Nb,Zr,Ti)O3 Devices: Influence of Paste Rheology on Print Morphology and Component Properties. *Journal of the American Ceramic Society*, **2001**, 84, 2462-2468	3.8	82
148	Architected Lattices with High Stiffness and Toughness via Multicore-Shell 3D Printing. *Advanced Materials*, **2018**, 30, e1705001	24	81
147	Redox Active Colloids as Discrete Energy Storage Carriers. *Journal of the American Chemical Society*, **2016**, 138, 13230-13237	16.4	81
146	Chemorheology of Aqueous-Based Alumina-Poly(vinyl alcohol) Gelcasting Suspensions. *Journal of the American Ceramic Society*, **2004**, 82, 521-528	3.8	79
145	Stop-Flow Lithography of Colloidal, Glass, and Silicon Microcomponents. *Advanced Materials*, **2008**, 20, 4734-4739	24	78
144	Effect of Nonadsorbed Polymer on the Stability of Weakly Flocculated Suspensions. *Langmuir*, **1996**, 12, 3413-3424	4	78
143	Accelerated Self-Healing Via Ternary Interpenetrating Microvascular Networks. *Advanced Functional Materials*, **2011**, 21, 4320-4326	15.6	76
142	Shape Evolution and Stress Development during Latex-Silica Film Formation. *Langmuir*, **2002**, 18, 4689-4698	4	75
141	Solid Freeform Fabrication of Aqueous Alumina-Poly(vinyl alcohol) Gelcasting Suspensions. *Journal of the American Ceramic Society*, **2004**, 83, 2409-2416	3.8	74
140	A Germanium Inverse Woodpile Structure with a Large Photonic Band Gap. *Advanced Materials*, **2007**, 19, 1567-1570	24	73
139	Controlling Material Reactivity Using Architecture. *Advanced Materials*, **2016**, 28, 1934-9	24	73
138	Marangoni effects on evaporative lithographic patterning of colloidal films. *Langmuir*, **2008**, 24, 3681-5	4	72
137	Janus colloidal matchsticks. *Journal of the American Chemical Society*, **2012**, 134, 12901-3	16.4	71
136	3D Printing of Interdigitated Dielectric Elastomer Actuators. *Advanced Functional Materials*, **2020**, 30, 1907375	15.6	70
135	PAA/PEO comb polymer effects on rheological properties and inter-particle forces in aqueous silica suspensions. *Journal of Colloid and Interface Science*, **2003**, 262, 274-81	9.3	69
134	Gigahertz Electromagnetic Structures via Direct Ink Writing for Radio-Frequency Oscillator and Transmitter Applications. *Advanced Materials*, **2017**, 29, 1605198	24	68

133	Biomimetic silicification of 3D polyamine-rich scaffolds assembled by direct ink writing. *Soft Matter*, **2006**, 2, 205-209	3.6	66
132	Perovskite nanowire-block copolymer composites with digitally programmable polarization anisotropy. *Science Advances*, **2019**, 5, eaav8141	14.3	64
131	Piezoelectric properties of 3-X periodic Pb(ZrxTi1-x)O3-polymer composites. *Journal of Applied Physics*, **2002**, 92, 6119-6127	2.5	61
130	Phase behavior and rheological properties of polyelectrolyte inks for direct-write assembly. *Langmuir*, **2005**, 21, 457-64	4	60
129	Photocurable liquid core-fugitive shell printing of optical waveguides. *Advanced Materials*, **2011**, 23, 5055-8	24	59
128	Polymer Microvascular Network Composites. *Journal of Composite Materials*, **2010**, 44, 2587-2603	2.7	58
127	Robocast Pb(Zr0.95Ti0.05)O3 Ceramic Monoliths and Composites. *Journal of the American Ceramic Society*, **2001**, 84, 872-874	3.8	58
126	Design, fabrication, and in-vitro testing of novel three-dimensionally printed tympanic membrane grafts. *Hearing Research*, **2016**, 340, 191-203	3.9	54
125	Biphasic Electrode Suspensions for Li-Ion Semi-solid Flow Cells with High Energy Density, Fast Charge Transport, and Low-Dissipation Flow. *Advanced Energy Materials*, **2015**, 5, 1500535	21.8	51
124	Engineered 3D-printed artificial axons. *Scientific Reports*, **2018**, 8, 478	4.9	50
123	Lightweight 3D cellular composites inspired by balsa. *Bioinspiration and Biomimetics*, **2017**, 12, 026014	2.6	48
122	Light-regulated electrostatic interactions in colloidal suspensions. *Journal of the American Chemical Society*, **2005**, 127, 14574-5	16.4	47
121	Directed Colloidal Assembly of Linear and Annular Lead Zirconate Titanate Arrays. *Journal of the American Ceramic Society*, **2004**, 87, 293-295	3.8	46
120	Stress development during drying of calcium carbonate suspensions containing carboxymethylcellulose and latex particles. *Journal of Colloid and Interface Science*, **2004**, 272, 1-9	9.3	46
119	Structure of colloidal gels during microchannel flow. *Langmuir*, **2008**, 24, 7628-34	4	44
118	Architected Polymer Foams via Direct Bubble Writing. *Advanced Materials*, **2019**, 31, e1904668	24	43
117	Designing colloidal suspensions for directed materials assembly. *Current Opinion in Colloid and Interface Science*, **2011**, 16, 71-79	7.6	42
116	Interparticle interactions and direct imaging of colloidal phases assembled from microsphere-nanoparticle mixtures. *Langmuir*, **2005**, 21, 9978-89	4	41

115	Direct Laser Writing of Photoresponsive Colloids for Microscale Patterning of 3D Porous Structures. *Advanced Materials*, **2009**, 21, 66-70	24	39
114	Innervated, Self-Sensing Liquid Crystal Elastomer Actuators with Closed Loop Control. *Advanced Materials*, **2021**, 33, e2101814	24	39
113	Quantitative measurement of nanoparticle halo formation around colloidal microspheres in binary mixtures. *Langmuir*, **2008**, 24, 6504-8	4	38
112	A Self-Aligned Strategy for Printed Electronics: Exploiting Capillary Flow on Microstructured Plastic Surfaces. *Advanced Electronic Materials*, **2015**, 1, 1500137	6.4	37
111	Electrostatically tuned interactions in silica microsphere-polystyrene nanoparticle mixtures. *Langmuir*, **2005**, 21, 8576-9	4	37
110	High-resolution, high-aspect ratio conductive wires embedded in plastic substrates. *ACS Applied Materials & Interfaces*, **2015**, 7, 1841-7	9.5	35
109	Reconfigurable assemblies of Janus rods in AC electric fields. *Soft Matter*, **2014**, 10, 1320-4	3.6	35
108	Structural evolution of colloidal crystals with increasing ionic strength. *Langmuir*, **2004**, 20, 7045-52	4	35
107	Rheological, Structural, and Stress Evolution of Aqueous Al2O3:Latex Tape-Cast Layers. *Journal of the American Ceramic Society*, **2002**, 85, 2409-2416	3.8	34
106	Observation of Poly{Vinyl Butyral}-Dibutyl Phthalate Binder Capillary Migration. *Journal of the American Ceramic Society*, **1989**, 72, 1087-1090	3.8	34
105	Stretchable Optomechanical Fiber Sensors for Pressure Determination in Compressive Medical Textiles. *Advanced Healthcare Materials*, **2018**, 7, e1800293	10.1	34
104	Load partitioning in Al2O3/Al composites with three-dimensional periodic architecture. *Acta Materialia*, **2009**, 57, 2362-2375	8.4	33
103	Microstructure and Mechanical Properties of Reticulated Titanium Scrolls. *Advanced Engineering Materials*, **2011**, 13, 1122-1127	3.5	32
102	Direct-write assembly of microperiodic planar and spanning ITO microelectrodes. *Chemical Communications*, **2010**, 46, 7118-20	5.8	32
101	Evaporative lithographic patterning of binary colloidal films. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2009**, 367, 5157-65	3	32
100	Direct flow visualization of colloidal gels in microfluidic channels. *Langmuir*, **2007**, 23, 8726-31	4	32
99	Structural and Property Evolution of Aqueous-Based Lead Zirconate Titanate Tape-Cast Layers. *Journal of the American Ceramic Society*, **2001**, 84, 2495-2500	3.8	32
98	Printed, Self-Aligned Side-Gate Organic Transistors with a Sub-5 μm Gate–Channel Distance on Imprinted Plastic Substrates. *Advanced Electronic Materials*, **2016**, 2, 1600293	6.4	31

97	Phase behavior and 3D structure of strongly attractive microsphere-nanoparticle mixtures. *Langmuir*, **2005**, 21, 11040-7	4	31
96	Comb Polymer Architecture, Ionic Strength, and Particle Size Effects on the BaTiO3 Suspension Stability. *Journal of the American Ceramic Society*, **2009**, 92, S42-S49	3.8	30
95	Scaffold design and fabrication **2008**, 403-454		30
94	Programming Mechanical and Physicochemical Properties of 3D Hydrogel Cellular Microcultures via Direct Ink Writing. *Advanced Healthcare Materials*, **2016**, 5, 1025-39	10.1	29
93	Rheological Behavior of Fugitive Organic Inks for Direct-Write Assembly. *Applied Rheology*, **2007**, 17, 10112-1-10112-8	1.2	29
92	Direct-Write Fabrication of Zinc Oxide Varistors. *Journal of the American Ceramic Society*, **2004**, 85, 123-128	3.8	29
91	Soluble organic additive effects on stress development during drying of calcium carbonate suspensions. *Journal of Colloid and Interface Science*, **2005**, 290, 134-44	9.3	29
90	Diffusivities of Dialkyl Phthalates in Plasticized Poly(vinyl butyral): Impact on Binder Thermolysis. *Journal of the American Ceramic Society*, **1990**, 73, 2702-2707	3.8	29
89	High-Operating-Temperature Direct Ink Writing of Mesoscale Eutectic Architectures. *Advanced Materials*, **2017**, 29, 1604778	24	28
88	3D printed structures for modeling the Young's modulus of bamboo parenchyma. *Acta Biomaterialia*, **2018**, 68, 90-98	10.8	28
87	Polymer Effects on the Chemorheological and Drying Behavior of Alumina/Poly(vinyl alcohol) Gelcasting Suspensions. *Journal of the American Ceramic Society*, **2004**, 83, 1957-1963	3.8	28
86	All-Printed, Self-Aligned Carbon Nanotube Thin-Film Transistors on Imprinted Plastic Substrates. *ACS Applied Materials & Interfaces*, **2018**, 10, 15926-15932	9.5	27
85	Cationic comb polymer superdispersants for colloidal silica suspensions. *Langmuir*, **2009**, 25, 6787-92	4	27
84	Effects of Ammonium Chloride on the Rheological Properties and Sedimentation Behavior of Aqueous Silica Suspensions. *Journal of the American Ceramic Society*, **2004**, 83, 266-272	3.8	27
83	Surface-barrier effects in grain-aligned HgBa2CuO4+ delta, HgBa2CaCu2O6+ delta, and HgBa2Ca2Cu3O8+ delta compounds. *Physical Review B*, **1995**, 52, R3852-R3855	3.3	27
82	3D Printing Soft Materials: What Is Possible?. *Soft Robotics*, **2015**, 2, 3-6	9.2	26
81	Fabricating 3D Structures by Combining 2D Printing and Relaxation of Strain. *Advanced Materials Technologies*, **2019**, 4, 1800299	6.8	26
80	3D-printed spherical dipole antenna integrated on small RF node. *Electronics Letters*, **2015**, 51, 661-662	1.1	25

79	Amphiphilic silver particles for conductive inks with controlled wetting behavior. *Materials Chemistry and Physics*, **2014**, 148, 686-691	4.4	25
78	Planar and three-dimensional printing of conductive inks. *Journal of Visualized Experiments*, **2011**,	1.6	24
77	Comparison of Spherical Antennas Fabricated via Conformal Printing: Helix, Meanderline, and Hybrid Designs. *IEEE Antennas and Wireless Propagation Letters*, **2011**, 10, 1425-1428	3.8	23
76	Soft Robotic Fingers with Embedded Ionogel Sensors and Discrete Actuation Modes for Somatosensitive Manipulation **2019**,		22
75	Bioprinting: 3D Bioprinting of Vascularized, Heterogeneous Cell-Laden Tissue Constructs (Adv. Mater. 19/2014). *Advanced Materials*, **2014**, 26, 2966-2966	24	22
74	Structure and dynamics of biphasic colloidal mixtures. *Physical Review E*, **2008**, 77, 060403	2.4	22
73	Nonlinear elasticity and yielding of nanoparticle glasses. *Langmuir*, **2006**, 22, 2441-3	4	22
72	Competitive Adsorption Phenomena in Nonaqueous Tape Casting Suspensions. *Journal of the American Ceramic Society*, **2001**, 84, 2501-2506	3.8	22
71	Superconducting properties of grain-aligned HgBa2CuO4+x. *Physical Review B*, **1993**, 48, 7739-7741	3.3	21
70	Microstructure-Property Relationships in Macro-Defect-Free Cement. *MRS Bulletin*, **1993**, 18, 72-77	3.2	21
69	The NIH Somatic Cell Genome Editing program. *Nature*, **2021**, 592, 195-204	50.4	21
68	3D polymer objects with electronic components interconnected via conformally printed electrodes. *Nanoscale*, **2017**, 9, 14798-14803	7.7	20
67	Wettability Contrast Gravure Printing. *Advanced Materials*, **2015**, 27, 7420-5	24	20
66	Size ratio effects on interparticle interactions and phase behavior of microsphere-nanoparticle mixtures. *Langmuir*, **2008**, 24, 11399-405	4	20
65	Printing Reconfigurable Bundles of Dielectric Elastomer Fibers. *Advanced Functional Materials*, **2021**, 31, 2010643	15.6	19
64	Anisotropic colloidal templating of 3D ceramic, semiconducting, metallic, and polymeric architectures. *Advanced Materials*, **2014**, 26, 1740-5	24	18
63	Computer Simulations of Binder Removal from 2-D and 3-D Model Particulate Bodies. *Journal of the American Ceramic Society*, **1996**, 79, 1377-1388	3.8	18
62	Direct Observation of Preceramic and Organic Binder Decomposition in 2-D Model Microstructures. *Journal of the American Ceramic Society*, **1994**, 77, 1839-1845	3.8	18

61	The role of ceramic and glass science research in meeting societal challenges: Report from an NSF-sponsored workshop. *Journal of the American Ceramic Society*, **2017**, 100, 1777-1803	3.8	17
60	Voltage-controlled morphing of dielectric elastomer circular sheets into conical surfaces. *Extreme Mechanics Letters*, **2019**, 30, 100504	3.9	17
59	3D Printing: 3D-Printing of Lightweight Cellular Composites (Adv. Mater. 34/2014). *Advanced Materials*, **2014**, 26, 6043-6043	24	17
58	Phase behavior and rheological properties of polyamine-rich complexes for direct-write assembly. *Langmuir*, **2007**, 23, 12752-9	4	16
57	Phase Behavior, 3-D Structure, and Rheology of Colloidal Microsphere−Nanoparticle Suspensions. *Journal of the American Ceramic Society*, **2006**, 89, 1840-1846	3.8	16
56	Encapsulated Solvents for Carbon Dioxide Capture. *Energy Procedia*, **2013**, 37, 219-224	2.3	15
55	Effect of ceramic preform geometry on load partitioning in Al2O3/Al composites with three-dimensional periodic architecture. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 526, 190-196	5.3	15
54	Engineered flux-pinning centers in Bi2Sr2CaCu2Ox and TlBa2Ca2Cu3Ox superconductors. *Journal of Electronic Materials*, **1995**, 24, 1961-1966	1.9	15
53	Polymer Dielectrics for 3D-Printed RF Devices in the Ka Band. *Advanced Materials Technologies*, **2016**, 1, 1600027	6.8	15
52	Microstructure and Elastic Properties of Colloidal Gel Foams. *Langmuir*, **2017**, 33, 6869-6877	4	14
51	Binder Distribution in Macro-Defect-Free Cements: Relation between Percolative Properties and Moisture Absorption Kinetics. *Journal of the American Ceramic Society*, **1994**, 77, 711-716	3.8	14
50	Mechanics of biomimetic 4D printed structures. *Soft Matter*, **2018**, 14, 8771-8779	3.6	13
49	Towards enduring autonomous robots via embodied energy.. *Nature*, **2022**, 602, 393-402	50.4	13
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