David H Gracias

List of Publications by Citations

197 papers	10,430 citations	56 h-index	98 g-index
224 ext. papers	11,804 ext. citations	8.8 avg, IF	6.52 L-index

#	Paper	IF	Citations
197	3D printed bionic ears. *Nano Letters*, **2013**, 13, 2634-9	11.5	626
196	Forming electrical networks in three dimensions by self-assembly. *Science*, **2000**, 289, 1170-2	33.3	413
195	Fabrication of a cylindrical display by patterned assembly. *Science*, **2002**, 296, 323-5	33.3	353
194	Self-folding thermo-magnetically responsive soft microgrippers. *ACS Applied Materials & Interfaces*, **2015**, 7, 3398-405	9.5	341
193	Self-propelled nanotools. *ACS Nano*, **2012**, 6, 1751-6	16.7	333
192	Tetherless thermobiochemically actuated microgrippers. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 703-8	11.5	299
191	DNA sequence-directed shape change of photopatterned hydrogels via high-degree swelling. *Science*, **2017**, 357, 1126-1130	33.3	227
190	Three-dimensional fabrication at small size scales. *Small*, **2010**, 6, 792-806	11	212
189	Origami MEMS and NEMS. *MRS Bulletin*, **2016**, 41, 123-129	3.2	211
188	Self-folding polymeric containers for encapsulation and delivery of drugs. *Advanced Drug Delivery Reviews*, **2012**, 64, 1579-89	18.5	201
187	Differentially photo-crosslinked polymers enable self-assembling microfluidics. *Nature Communications*, **2011**, 2, 527	17.4	189
186	Photolithographically patterned smart hydrogel based bilayer actuators. *Polymer*, **2010**, 51, 6093-6098	3.9	185
185	Self-folding devices and materials for biomedical applications. *Trends in Biotechnology*, **2012**, 30, 138-46	15.1	181
184	Rolled-up magnetic microdrillers: towards remotely controlled minimally invasive surgery. *Nanoscale*, **2013**, 5, 1294-1297	7.7	181
183	Bio-origami hydrogel scaffolds composed of photocrosslinked PEG bilayers. *Advanced Healthcare Materials*, **2013**, 2, 1142-50	10.1	160
182	Biopsy with thermally-responsive untethered microtools. *Advanced Materials*, **2013**, 25, 514-9	24	160
181	Stimuli-responsive theragrippers for chemomechanical controlled release. *Angewandte Chemie - International Edition*, **2014**, 53, 8045-8049	16.4	146

180	Biopsy using a magnetic capsule endoscope carrying, releasing, and retrieving untethered microgrippers. *IEEE Transactions on Biomedical Engineering*, **2014**, 61, 513-21	5	142
179	Transformer Hydrogels: A Review. *Advanced Materials Technologies*, **2019**, 4, 1900043	6.8	141
178	Fabrication of Micrometer-Scale, Patterned Polyhedra by Self-Assembly. *Advanced Materials*, **2002**, 14, 235-238	24	141
177	Stimuli responsive self-folding using thin polymer films. *Current Opinion in Chemical Engineering*, **2013**, 2, 112-119	5.4	139
176	Surface tension-driven self-folding polyhedra. *Langmuir*, **2007**, 23, 8747-51	4	131
175	Self-folding micropatterned polymeric containers. *Biomedical Microdevices*, **2011**, 13, 51-8	3.7	124
174	Nanoscale origami for 3D optics. *Small*, **2011**, 7, 1943-8	11	121
173	Micropatterned agarose gels for stamping arrays of proteins and gradients of proteins. *Proteomics*, **2004**, 4, 2366-76	4.8	119
172	Kinetics of ultraviolet and plasma surface modification of poly(dimethylsiloxane) probed by sum frequency vibrational spectroscopy. *Langmuir*, **2006**, 22, 1863-8	4	117
171	Self-folding single cell grippers. *Nano Letters*, **2014**, 14, 4164-70	11.5	112
170	Functional stimuli responsive hydrogel devices by self-folding. *Smart Materials and Structures*, **2014**, 23, 094008	3.4	112
169	Ultrathin thermoresponsive self-folding 3D graphene. *Science Advances*, **2017**, 3, e1701084	14.3	110
168	Microassembly based on hands free origami with bidirectional curvature. *Applied Physics Letters*, **2009**, 95, 91901	3.4	110
167	Self-folding thin-film materials: From nanopolyhedra to graphene origami. *MRS Bulletin*, **2012**, 37, 847-854	3.2	100
166	Molecular Characterization of Polymer and Polymer Blend Surfaces. Combined Sum Frequency Generation Surface Vibrational Spectroscopy and Scanning Force Microscopy Studies. *Accounts of Chemical Research*, **1999**, 32, 930-940	24.3	97
165	Enzymatically triggered actuation of miniaturized tools. *Journal of the American Chemical Society*, **2010**, 132, 16314-7	16.4	95
164	Thin film stress driven self-folding of microstructured containers. *Small*, **2008**, 4, 1605-9	11	91
163	Self-assembly of lithographically patterned nanoparticles. *Nano Letters*, **2009**, 9, 4049-52	11.5	90

162	Pick-and-place using chemically actuated microgrippers. *Journal of the American Chemical Society*, **2008**, 130, 17238-9	16.4	83
161	Biomimetic self-assembly of a functional asymmetrical electronic device. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 4937-40	11.5	83
160	Continuum Force Microscopy Study of the Elastic Modulus, Hardness and Friction of Polyethylene and Polypropylene Surfaces. *Macromolecules*, **1998**, 31, 1269-1276	5.5	82
159	Directed growth of fibroblasts into three dimensional micropatterned geometries via self-assembling scaffolds. *Biomaterials*, **2010**, 31, 1683-90	15.6	81
158	Biosensing: A Micropatterned Multielectrode Shell for 3D Spatiotemporal Recording from Live Cells (Adv. Sci. 4/2018). *Advanced Science*, **2018**, 5, 1870026	13.6	78
157	Algorithmic design of self-folding polyhedra. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 19885-90	11.5	78
156	Interaction of fibrinogen with surfaces of end-group-modified polyurethanes: a surface-specific sum-frequency-generation vibrational spectroscopy study. *Journal of Biomedical Materials Research Part B*, **2002**, 62, 254-64		74
155	3D lithographically fabricated nanoliter containers for drug delivery. *Advanced Drug Delivery Reviews*, **2007**, 59, 1547-61	18.5	72
154	Probing organic field effect transistors in situ during operation using SFG. *Journal of the American Chemical Society*, **2006**, 128, 6528-9	16.4	70
153	Stimuli-Responsive Soft Untethered Grippers for Drug Delivery and Robotic Surgery. *Frontiers in Mechanical Engineering*, **2017**, 3,	2.6	69
152	Solvent driven motion of lithographically fabricated gels. *Langmuir*, **2008**, 24, 12158-63	4	69
151	A study of the glass transition of polypropylene surfaces by sum-frequency vibrational spectroscopy and scanning force microscopy. *Chemical Physics*, **1999**, 245, 277-284	2.3	65
150	Spatially controlled chemistry using remotely guided nanoliter scale containers. *Journal of the American Chemical Society*, **2006**, 128, 11336-7	16.4	63
149	Dual-Gel 4D Printing of Bioinspired Tubes. *ACS Applied Materials & Interfaces*, **2019**, 11, 8492-8498	9.5	60
148	Enabling cargo-carrying bacteria via surface attachment and triggered release. *Small*, **2011**, 7, 588-92	11	60
147	Lithographic Fabrication of Model Systems in Heterogeneous Catalysis and Surface Science Studies. *Langmuir*, **1998**, 14, 1458-1464	4	60
146	Mechanical Trap Surface-Enhanced Raman Spectroscopy for Three-Dimensional Surface Molecular Imaging of Single Live Cells. *Angewandte Chemie - International Edition*, **2017**, 56, 3822-3826	16.4	59
145	Rolled-up functionalized nanomembranes as three-dimensional cavities for single cell studies. *Nano Letters*, **2014**, 14, 4197-204	11.5	59

144	Three-dimensional microwell arrays for cell culture. *Lab on A Chip*, **2011**, 11, 127-31	7.2	59
143	Self-loading lithographically structured microcontainers: 3D patterned, mobile microwells. *Lab on A Chip*, **2008**, 8, 1621-4	7.2	59
142	Self-assembled three dimensional radio frequency (RF) shielded containers for cell encapsulation. *Biomedical Microdevices*, **2005**, 7, 341-5	3.7	58
141	Curving nanostructures using extrinsic stress. *Advanced Materials*, **2010**, 22, 2320-4	24	55
140	Substrate-directed synthesis of MoS nanocrystals with tunable dimensionality and optical properties. *Nature Nanotechnology*, **2020**, 15, 29-34	28.7	55
139	Laser triggered sequential folding of microstructures. *Applied Physics Letters*, **2012**, 101, 131901	3.4	54
138	Microchemomechanical Systems. *Advanced Functional Materials*, **2011**, 21, 2395-2410	15.6	53
137	Toward a miniaturized mechanical surgeon. *Materials Today*, **2009**, 12, 14-20	21.8	53
136	Integrating nanowires with substrates using directed assembly and nanoscale soldering. *IEEE Nanotechnology Magazine*, **2006**, 5, 62-66	2.6	53
135	Surface Studies of Polymer Blends by Sum Frequency Vibrational Spectroscopy, Atomic Force Microscopy, and Contact Angle Goniometry. *Journal of Physical Chemistry B*, **1998**, 102, 6225-6230	3.4	51
134	Self-folding graphene-polymer bilayers. *Applied Physics Letters*, **2015**, 106, 203108	3.4	50
133	Patterning Thin Film Mechanical Properties to Drive Assembly of Complex 3D Structures. *Advanced Materials*, **2008**, 20, 4760-4764	24	50
132	Sum frequency generation (SFG) surface vibrational spectroscopy studies of buried interfaces: catalytic reaction intermediates on transition metal crystal surfaces at high reactant pressures; polymer surface structures at the solid–gas and solid–liquid interfaces. *Applied Physics B: Lasers and Optics*, **1999**, 68, 549-557	1.9	49
131	Three dimensional nanofabrication using surface forces. *Langmuir*, **2010**, 26, 16534-9	4	48
130	Dielectrophoretic assembly of reversible and irreversible metal nanowire networks and vertically aligned arrays. *Applied Physics Letters*, **2006**, 88, 233118	3.4	48
129	Voltage-gated ion transport through semiconducting conical nanopores formed by metal nanoparticle-assisted plasma etching. *Nano Letters*, **2012**, 12, 3437-42	11.5	47
128	Reversible actuation of microstructures by surface-chemical modification of thin-film bilayers. *Advanced Materials*, **2010**, 22, 407-10	24	47
127	Patternable nanowire sensors for electrochemical recording of dopamine. *Analytical Chemistry*, **2009**, 81, 9979-84	7.8	45

126	Hyperthermia with magnetic nanowires for inactivating living cells. *Journal of Nanoscience and Nanotechnology*, **2008**, 8, 2323-7	1.3	45
125	Autonomous planning and control of soft untethered grippers in unstructured environments. *Journal of Micro-Bio Robotics*, **2017**, 12, 45-52	1.4	44
124	Biodegradable Thermomagnetically Responsive Soft Untethered Grippers. *ACS Applied Materials & Interfaces*, **2019**, 11, 151-159	9.5	44
123	Origami Biosystems: 3D Assembly Methods for Biomedical Applications. *Advanced Biology*, **2018**, 2, 1800230	3.5	39
122	Steering and control of miniaturized untethered soft magnetic grippers with haptic assistance. *IEEE Transactions on Automation Science and Engineering*, **2018**, 15, 290-306	4.9	38
121	. *Journal of Microelectromechanical Systems*, **2009**, 18, 784-791	2.5	38
120	Soft Three-Dimensional Robots with Hard Two-Dimensional Materials. *ACS Nano*, **2019**, 13, 4883-4892	16.7	36
119	Multitemperature Responsive Self-Folding Soft Biomimetic Structures. *Macromolecular Rapid Communications*, **2018**, 39, 1700692	4.8	36
118	Stimuli-Responsive Theragrippers for Chemomechanical Controlled Release. *Angewandte Chemie*, **2014**, 126, 8183-8187	3.6	36
117	Correlations between SFG Spectra and Electrical Properties of Organic Field Effect Transistors. *Journal of Physical Chemistry C*, **2007**, 111, 13250-13255	3.8	36
116	Self-Folding Hybrid Graphene Skin for 3D Biosensing. *Nano Letters*, **2019**, 19, 1409-1417	11.5	36
115	Ultrathin Shape Change Smart Materials. *Accounts of Chemical Research*, **2018**, 51, 436-444	24.3	35
114	Self-folding immunoprotective cell encapsulation devices. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2011**, 7, 686-9	6	34
113	Reversible MoS Origami with Spatially Resolved and Reconfigurable Photosensitivity. *Nano Letters*, **2019**, 19, 7941-7949	11.5	33
112	Biomimetic self-assembly of helical electrical circuits using orthogonal capillary interactions. *Applied Physics Letters*, **2002**, 80, 2802-2804	3.4	33
111	Self-assembly of orthogonal three-axis sensors. *Applied Physics Letters*, **2008**, 93, 043505	3.4	31
110	Surface tension driven self-assembly of bundles and networks of 200 nm diameter rods using a polymerizable adhesive. *Langmuir*, **2004**, 20, 11308-11	4	31
109	Three-dimensional electrically interconnected nanowire networks formed by diffusion bonding. *Langmuir*, **2007**, 23, 979-82	4	30

108	The bonding of nanowire assemblies using adhesive and solder. *Jom*, **2005**, 57, 60-64	2.1	30
107	Compactness determines the success of cube and octahedron self-assembly. *PLoS ONE*, **2009**, 4, e4451	3.7	30
106	Reflow and electrical characteristics of nanoscale solder. *Small*, **2006**, 2, 225-9	11	29
105	3D printing and characterization of a soft and biostable elastomer with high flexibility and strength for biomedical applications. *Journal of the Mechanical Behavior of Biomedical Materials*, **2020**, 104, 103649	4.1	28
104	Transitions from nanoscale to microscale dynamic friction mechanisms on polyethylene and silicon surfaces. *Journal of Applied Physics*, **2000**, 87, 3143-3150	2.5	28
103	Active matter therapeutics. *Nano Today*, **2020**, 31,	17.9	27
102	Hierarchical self-assembly of complex polyhedral microcontainers. *Journal of Micromechanics and Microengineering*, **2009**, 19, 1-6	2	27
101	A Self-Folding Hydrogel In Vitro Model for Ductal Carcinoma. *Tissue Engineering - Part C: Methods*, **2016**, 22, 398-407	2.9	26
100	Plastic deformation drives wrinkling, saddling, and wedging of annular bilayer nanostructures. *Nano Letters*, **2010**, 10, 5098-102	11.5	26
99	Importance of surface patterns for defect mitigation in three-dimensional self-assembly. *Langmuir*, **2010**, 26, 12534-9	4	26
98	Remote radio-frequency controlled nanoliter chemistry and chemical delivery on substrates. *Angewandte Chemie - International Edition*, **2007**, 46, 4991-4	16.4	26
97	3D Printing of an Grown MOF Hydrogel with Tunable Mechanical Properties. *ACS Applied Materials & Interfaces*, **2020**, 12, 33267-33275	9.5	25
96	Untethered Single Cell Grippers for Active Biopsy. *Nano Letters*, **2020**, 20, 5383-5390	11.5	24
95	Molecular Insights into Division of Single Human Cancer Cells in On-Chip Transparent Microtubes. *ACS Nano*, **2016**, 10, 5835-46	16.7	24
94	Biologic tissue sampling with untethered microgrippers. *Gastroenterology*, **2013**, 144, 691-3	13.3	23
93	Three-dimensional chemical patterns for cellular self-organization. *Angewandte Chemie - International Edition*, **2011**, 50, 2549-53	16.4	23
92	Gastrointestinal-resident, shape-changing microdevices extend drug release in vivo. *Science Advances*, **2020**, 6,	14.3	23
91	A Micropatterned Multielectrode Shell for 3D Spatiotemporal Recording from Live Cells. *Advanced Science*, **2018**, 5, 1700731	13.6	20

90	Direct Ink Writing of Poly(tetrafluoroethylene) (PTFE) with Tunable Mechanical Properties. *ACS Applied Materials & Interfaces*, **2019**, 11, 28289-28295	9.5	20
89	Quantitative analysis of parallel nanowire array assembly by dielectrophoresis. *Nanoscale*, **2011**, 3, 1059-65	7.7	20
88	Competition of intrinsic and topographically imposed patterns in B□ard□Marangoni convection. *Applied Physics Letters*, **2001**, 79, 439-441	3.4	20
87	Silane surface modification for improved bioadhesion of esophageal stents. *Applied Surface Science*, **2014**, 311, 684-689	6.7	19
86	Limits of imaging with multilayer hyperbolic metamaterials. *Optics Express*, **2017**, 25, 13588-13601	3.3	18
85	Mechanical Trap Surface-Enhanced Raman Spectroscopy for Three-Dimensional Surface Molecular Imaging of Single Live Cells. *Angewandte Chemie*, **2017**, 129, 3880-3884	3.6	17
84	Origami inspired self-assembly of patterned and reconfigurable particles. *Journal of Visualized Experiments*, **2013**, e50022	1.6	17
83	Nano-folded Gold Catalysts for Electroreduction of Carbon Dioxide. *Nano Letters*, **2019**, 19, 9154-9159	11.5	17
82	Bidirectional and biaxial curving of thermoresponsive bilayer plates with soft and stiff segments. *Extreme Mechanics Letters*, **2017**, 16, 6-12	3.9	16
81	Three-dimensional surface current loops in terahertz responsive microarrays. *Applied Physics Letters*, **2010**, 96, 191108	3.4	16
80	Tetherless Microgrippers With Transponder Tags. *Journal of Microelectromechanical Systems*, **2011**, 20, 505-511	2.5	16
79	Design, characterization and control of thermally-responsive and magnetically-actuated micro-grippers at the air-water interface. *PLoS ONE*, **2017**, 12, e0187441	3.7	15
78	Magnetic Motion Control and Planning of Untethered Soft Grippers using Ultrasound Image Feedback. *IEEE International Conference on Robotics and Automation: ICRA: [proceedings]*, **2017**, 2017, 6156-6161	2.2	15
77	Cell viability and noninvasive in vivo MRI tracking of 3D cell encapsulating self-assembled microcontainers. *Cell Transplantation*, **2007**, 16, 403-8	4	15
76	Design for a lithographically patterned bioartificial endocrine pancreas. *Artificial Organs*, **2013**, 37, 1059-67	2.6	14
75	Size selective sampling using mobile, 3D nanoporous membranes. *Analytical and Bioanalytical Chemistry*, **2009**, 393, 1217-24	4.4	14
74	Control of Untethered Soft Grippers for Pick-and-Place Tasks **2016**, 2016, 299-304	2.3	14
73	Electrocatalytic Oxidation of Glycerol on Platinum. *Journal of Physical Chemistry C*, **2019**, 123, 426-432	3.8	14

72	Self-folding nanostructures with imprint patterned surfaces (SNIPS). *Faraday Discussions*, **2016**, 191, 61-7	3.6	12
71	Periodic buckling of soft 3D printed bioinspired tubes. *Extreme Mechanics Letters*, **2019**, 30, 100514	3.9	12
70	Building polyhedra by self-assembly: theory and experiment. *Artificial Life*, **2014**, 20, 409-39	1.4	12
69	Chemistry with spatial control using particles and streams(). *RSC Advances*, **2012**, 2, 9707-9726	3.7	11
68	Self-Assembly of Three-Dimensional Nanoporous Containers. *Nano*, **2009**, 4, 1-5	1.1	11
67	. *Journal of Microelectromechanical Systems*, **2008**, 17, 265-271	2.5	11
66	Biomimetic human small muscular pulmonary arteries. *Science Advances*, **2020**, 6, eaaz2598	14.3	10
65	Self-Folding Using Capillary Forces. *Advanced Materials Interfaces*, **2020**, 7, 1901677	4.6	10
64	Patterning of Fibroblast and Matrix Anisotropy within 3D Confinement is Driven by the Cytoskeleton. *Advanced Healthcare Materials*, **2016**, 5, 146-58	10.1	10
63	Evaluation of an electromagnetic system with haptic feedback for control of untethered, soft grippers affected by disturbances **2016**,		9
62	Tissue Engineering: Bio-Origami Hydrogel Scaffolds Composed of Photocrosslinked PEG Bilayers (Adv. Healthcare Mater. 8/2013). *Advanced Healthcare Materials*, **2013**, 2, 1066-1066	10.1	9
61	Surface chemistry-mechanical property relationship of low density polyethylene: an IR+visible sum frequency generation spectroscopy and atomic force microscopy study. *Tribology Letters*, **1998**, 4, 231-235	2.8	9
60	MRI of regular-shaped cell-encapsulating polyhedral microcontainers. *Magnetic Resonance in Medicine*, **2007**, 58, 1283-7	4.4	8
59	Self-folding microcube antennas for wireless power transfer in dispersive media **2016**, 04, 120-129		8
58	Comparative Studies of Ethanol and Ethylene Glycol Oxidation on Platinum Electrocatalysts. *Topics in Catalysis*, **2018**, 61, 1035-1042	2.3	7
57	Self-assembly of mesoscale isomers: the role of pathways and degrees of freedom. *PLoS ONE*, **2014**, 9, e108960	3.7	7
56	Assembly of a 3D Cellular Computer Using Folded E-Blocks. *Micromachines*, **2016**, 7,	3.3	7
55	Label-Free Spectroscopic SARS-CoV-2 Detection on Versatile Nanoimprinted Substrates.. *Nano Letters*, **2022**,	11.5	7

54	Bidirectional Propulsion of Arc-Shaped Microswimmers Driven by Precessing Magnetic Fields. *Advanced Intelligent Systems*, **2020**, 2, 2000064	6	6
53	Magnetic Resonance Guided Navigation of Untethered Microgrippers. *Advanced Healthcare Materials*, **2021**, 10, e2000869	10.1	6
52	Force characterization and analysis of thin film actuators for untethered microdevices. *AIP Advances*, **2019**, 9, 055011	1.5	5
51	Pneumatic delivery of untethered microgrippers for minimally invasive biopsy **2017**, 2017, 857-860		5
50	A Chemical Display: Generating Animations by Controlled Diffusion from Porous Voxels. *Advanced Functional Materials*, **2015**, 25, 3998-4004	15.6	5
49	Curved and folded micropatterns in 3D cell culture and tissue engineering. *Methods in Cell Biology*, **2014**, 121, 121-39	1.8	5
48	3D small antenna for energy harvesting applications on implantable micro-devices **2012**,		5
47	A one-step etching method to produce gold nanoparticle coated silicon microwells and microchannels. *Analytical and Bioanalytical Chemistry*, **2010**, 398, 2949-54	4.4	5
46	Multicomponent DNA Polymerization Motor Gels. *Small*, **2020**, 16, e2002946	11	5
45	3D Hybrid Small Scale Devices. *Small*, **2018**, 14, e1702497	11	4
44	Micro antennas for implantable medical devices **2013**,		4
43	Fabrication and characterization of RF nanoantenna on a nanoliter-scale 3D microcontainer. *Nanotechnology*, **2011**, 22, 455303	3.4	4
42	Electrochemically grown rough-textured nanowires. *Journal of Nanoparticle Research*, **2010**, 12, 1065-1073	2.3	4
41	Concentric ring pattern formation in heated chromium-gold thin films on silicon. *Applied Physics Letters*, **2008**, 92, 211907	3.4	4
40	A GPU-Accelerated Model-Based Tracker for Untethered Submillimeter Grippers. *Robotics and Autonomous Systems*, **2018**, 103, 111-121	3.5	4
39	A Multi-Rate State Observer for Visual Tracking of Magnetic Micro-Agents Using 2D Slow Medical Imaging Modalities **2018**,		4
38	Janus and patchy nanoparticles: general discussion. *Faraday Discussions*, **2016**, 191, 117-139	3.6	3
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36	A three dimensional self-folding package (SFP) for electronics. *Materials Research Society Symposia Proceedings*, **2010**, 1249, 1		3
35	Fabrication of 3D nanostructures with lithographically patterned surfaces by self-folding **2010**,		3
34	NANOWIRE ASSEMBLY AND INTEGRATION **2008**, 187-211		3
33	Large-Area Arrays of Quasi-3D Au Nanostructures for Polarization-Selective Mid-Infrared Metasurfaces. *ACS Applied Nano Materials*, **2020**, 3, 7029-7039	5.6	3
32	Hierarchically Curved Gelatin for 3D Biomimetic Cell Culture.. *ACS Applied Bio Materials*, **2019**, 2, 6004-6011	4.1	3
31	Sub-wavelength field enhancement in the mid-IR: photonics versus plasmonics versus phononics. *Optics Letters*, **2018**, 43, 4465-4468	3	3
30	Solvent Responsive Self-Folding of 3D Photosensitive Graphene Architectures. *Advanced Intelligent Systems*, **2020**, 2000195	6	2
29	Three dimensional self-assembly at the nanoscale **2013**,		2
28	Ultra-small energy harvesting microsystem for biomedical applications **2014**,		2
27	Nanowire-based surface-enhanced Raman spectroscopy (SERS) for chemical warfare simulants **2012**,		2
26	Initiation of nanoporous energetic silicon by optically-triggered, residual stress powered microactuators **2012**,		2
25	Interfacial adhesion of thin-film patterned interconnect structures		2
24	Directing Multicellular Organization by Varying the Aspect Ratio of Soft Hydrogel Microwells.. *Advanced Science*, **2022**, e2104649	13.6	2
23	Frontispiece: Mechanical Trap Surface-Enhanced Raman Spectroscopy for Three-Dimensional Surface Molecular Imaging of Single Live Cells. *Angewandte Chemie - International Edition*, **2017**, 56,	16.4	1
22	Miniaturized Untethered Tools for Surgery. *Advanced Micro & Nanosystems*, **2015**, 201-234		1
21	Controlled Release: A Chemical Display: Generating Animations by Controlled Diffusion from Porous Voxels (Adv. Funct. Mater. 26/2015). *Advanced Functional Materials*, **2015**, 25, 3982-3982	15.6	1
20	Stimuli Responsive Materials: Biopsy with Thermally-Responsive Untethered Microtools (Adv. Mater. 4/2013). *Advanced Materials*, **2013**, 25, 494-494	24	1
19	Three-Dimensional Chemical Patterns for Cellular Self-Organization. *Angewandte Chemie*, **2011**, 123, 2597-2601	3.6	1

18	Dielectrophoretic assembly of ordered nanostructures: Harnessing thermal randomness and inter-particle interactions **2012**,		1
17	Nanofabrication: Curving Nanostructures Using Extrinsic Stress (Adv. Mater. 21/2010). *Advanced Materials*, **2010**, 22, n/a-n/a	24	1
16	Forming low resistance nano-scale contacts using solder reflow		1
15	Scanning surface-enhanced Raman spectroscopy of silver nanowires **2005**, 5927, 337		1
14	Origami-Inspired 3D Assembly of Egg-Crate Shaped Metamaterials Using Stress and Surface Tension Forces. *MRS Advances*, **2016**, 1, 1743-1748	0.7	1
13	Biosystem Assembly: Origami Biosystems: 3D Assembly Methods for Biomedical Applications (Adv. Biosys. 12/2018). *Advanced Biology*, **2018**, 2, 1870113	3.5	1
12	3D Nanofabrication: Nanoscale Origami for 3D Optics (Small 14/2011). *Small*, **2011**, 7, 1850-1850	11	0
11	Building 3D Nanostructured Devices by Self-Assembly **2011**, 1-28		
10	Innentitelbild: Three-Dimensional Chemical Patterns for Cellular Self-Organization (Angew. Chem. 11/2011). *Angewandte Chemie*, **2011**, 123, 2456-2456	3.6	
9	Inside Cover: Three-Dimensional Chemical Patterns for Cellular Self-Organization (Angew. Chem. Int. Ed. 11/2011). *Angewandte Chemie - International Edition*, **2011**, 50, 2408-2408	16.4	
8	Fabrication and Applications of Three Dimensional Porous Microwells. *Materials Research Society Symposia Proceedings*, **2010**, 1272, 1		
7	Tetherless, 3D, Micro-Nanoscale Tools and Devices for Lab on a Chip Applications. *Materials Research Society Symposia Proceedings*, **2009**, 1191, 13		
6	A Facile Method for Patterning Substrates with Zinc Oxide Nanowires. *Materials Research Society Symposia Proceedings*, **2009**, 1174, 105		
5	Capillary And Magnetic Forces For Microscale Self-Assembled Systems. *Materials Research Society Symposia Proceedings*, **2010**, 1272, 1		
4	Spatiotemporally Controlled Nanoliter-Scale Reconfigurable Microfluidics **2010**, 39-62		
3	Integrated Nanotechnology 2.0: 3D, Smart, Flexible, and Dynamic [Highlights]. *IEEE Nanotechnology Magazine*, **2022**, 16, 11-15	1.7	
2	Developing and characterizing human biomimetic arteriole for studying pulmonary hypertension. *FASEB Journal*, **2018**, 32, 568.16	0.9	
1	Controlled Nanoscale Cracking of Graphene Ribbons by Polymer Shrinkage. *ACS Applied Nano Materials*, **2021**, 4, 1529-1539	5.6	