

David H Gracias

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Integrated Nanotechnology 2.0: 3D, Smart, Flexible, and Dynamic [Highlights]. <i>IEEE Nanotechnology Magazine</i> , 2022 , 16, 11-15	1.7	
196	Label-Free Spectroscopic SARS-CoV-2 Detection on Versatile Nanoimprinted Substrates.. <i>Nano Letters</i> , 2022 ,	11.5	7
195	Directing Multicellular Organization by Varying the Aspect Ratio of Soft Hydrogel Microwells.. <i>Advanced Science</i> , 2022 , e2104649	13.6	2
194	Magnetic Resonance Guided Navigation of Untethered Microgrippers. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2000869	10.1	6
193	Controlled Nanoscale Cracking of Graphene Ribbons by Polymer Shrinkage. <i>ACS Applied Nano Materials</i> , 2021 , 4, 1529-1539	5.6	
192	Solvent Responsive Self-Folding of 3D Photosensitive Graphene Architectures. <i>Advanced Intelligent Systems</i> , 2020 , 2000195	6	2
191	Untethered Single Cell Grippers for Active Biopsy. <i>Nano Letters</i> , 2020 , 20, 5383-5390	11.5	24
190	Bidirectional Propulsion of Arc-Shaped Microswimmers Driven by Precessing Magnetic Fields. <i>Advanced Intelligent Systems</i> , 2020 , 2, 2000064	6	6
189	3D Printing of an Grown MOF Hydrogel with Tunable Mechanical Properties. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 33267-33275	9.5	25
188	Active matter therapeutics. <i>Nano Today</i> , 2020 , 31,	17.9	27
187	3D printing and characterization of a soft and biostable elastomer with high flexibility and strength for biomedical applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020 , 104, 103649	4.1	28
186	Biomimetic human small muscular pulmonary arteries. <i>Science Advances</i> , 2020 , 6, eaaz2598	14.3	10
185	Substrate-directed synthesis of MoS nanocrystals with tunable dimensionality and optical properties. <i>Nature Nanotechnology</i> , 2020 , 15, 29-34	28.7	55
184	Self-Folding Using Capillary Forces. <i>Advanced Materials Interfaces</i> , 2020 , 7, 1901677	4.6	10
183	Large-Area Arrays of Quasi-3D Au Nanostructures for Polarization-Selective Mid-Infrared Metasurfaces. <i>ACS Applied Nano Materials</i> , 2020 , 3, 7029-7039	5.6	3
182	Multicomponent DNA Polymerization Motor Gels. <i>Small</i> , 2020 , 16, e2002946	11	5
181	Gastrointestinal-resident, shape-changing microdevices extend drug release in vivo. <i>Science Advances</i> , 2020 , 6,	14.3	23

180	Dual-Gel 4D Printing of Bioinspired Tubes. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 8492-8498	9.5	60
179	Soft Three-Dimensional Robots with Hard Two-Dimensional Materials. <i>ACS Nano</i> , 2019 , 13, 4883-4892	16.7	36
178	Transformer Hydrogels: A Review. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900043	6.8	141
177	Direct Ink Writing of Poly(tetrafluoroethylene) (PTFE) with Tunable Mechanical Properties. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 28289-28295	9.5	20
176	Force characterization and analysis of thin film actuators for untethered microdevices. <i>AIP Advances</i> , 2019 , 9, 055011	1.5	5
175	Periodic buckling of soft 3D printed bioinspired tubes. <i>Extreme Mechanics Letters</i> , 2019 , 30, 100514	3.9	12
174	Reversible MoS Origami with Spatially Resolved and Reconfigurable Photosensitivity. <i>Nano Letters</i> , 2019 , 19, 7941-7949	11.5	33
173	Nano-folded Gold Catalysts for Electroreduction of Carbon Dioxide. <i>Nano Letters</i> , 2019 , 19, 9154-9159	11.5	17
172	Hierarchically Curved Gelatin for 3D Biomimetic Cell Culture.. <i>ACS Applied Bio Materials</i> , 2019 , 2, 6004-6011	4.1	3
171	Self-Folding Hybrid Graphene Skin for 3D Biosensing. <i>Nano Letters</i> , 2019 , 19, 1409-1417	11.5	36
170	Electrocatalytic Oxidation of Glycerol on Platinum. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 426-432	3.8	14
169	Biodegradable Thermomagnetically Responsive Soft Untethered Grippers. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 151-159	9.5	44
168	Comparative Studies of Ethanol and Ethylene Glycol Oxidation on Platinum Electrocatalysts. <i>Topics in Catalysis</i> , 2018 , 61, 1035-1042	2.3	7
167	Ultrathin Shape Change Smart Materials. <i>Accounts of Chemical Research</i> , 2018 , 51, 436-444	24.3	35
166	Multitemperature Responsive Self-Folding Soft Biomimetic Structures. <i>Macromolecular Rapid Communications</i> , 2018 , 39, 1700692	4.8	36
165	A Micropatterned Multielectrode Shell for 3D Spatiotemporal Recording from Live Cells. <i>Advanced Science</i> , 2018 , 5, 1700731	13.6	20
164	Biosensing: A Micropatterned Multielectrode Shell for 3D Spatiotemporal Recording from Live Cells (Adv. Sci. 4/2018). <i>Advanced Science</i> , 2018 , 5, 1870026	13.6	78
163	Steering and control of miniaturized untethered soft magnetic grippers with haptic assistance. <i>IEEE Transactions on Automation Science and Engineering</i> , 2018 , 15, 290-306	4.9	38

162	3D Hybrid Small Scale Devices. <i>Small</i> , 2018 , 14, e1702497	11	4
161	Developing and characterizing human biomimetic arteriole for studying pulmonary hypertension. <i>FASEB Journal</i> , 2018 , 32, 568.16	0.9	
160	A GPU-Accelerated Model-Based Tracker for Untethered Submillimeter Grippers. <i>Robotics and Autonomous Systems</i> , 2018 , 103, 111-121	3.5	4
159	Biosystem Assembly: Origami Biosystems: 3D Assembly Methods for Biomedical Applications (Adv. Biosys. 12/2018). <i>Advanced Biology</i> , 2018 , 2, 1870113	3.5	1
158	A Multi-Rate State Observer for Visual Tracking of Magnetic Micro-Agents Using 2D Slow Medical Imaging Modalities 2018 ,		4
157	Sub-wavelength field enhancement in the mid-IR: photonics versus plasmonics versus phononics. <i>Optics Letters</i> , 2018 , 43, 4465-4468	3	3
156	Origami Biosystems: 3D Assembly Methods for Biomedical Applications. <i>Advanced Biology</i> , 2018 , 2, 1800330	3.0	39
155	Mechanical Trap Surface-Enhanced Raman Spectroscopy for Three-Dimensional Surface Molecular Imaging of Single Live Cells. <i>Angewandte Chemie</i> , 2017 , 129, 3880-3884	3.6	17
154	Mechanical Trap Surface-Enhanced Raman Spectroscopy for Three-Dimensional Surface Molecular Imaging of Single Live Cells. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 3822-3826	16.4	59
153	Autonomous planning and control of soft untethered grippers in unstructured environments. <i>Journal of Micro-Bio Robotics</i> , 2017 , 12, 45-52	1.4	44
152	Frontispiece: Mechanical Trap Surface-Enhanced Raman Spectroscopy for Three-Dimensional Surface Molecular Imaging of Single Live Cells. <i>Angewandte Chemie - International Edition</i> , 2017 , 56,	16.4	1
151	Ultrathin thermoresponsive self-folding 3D graphene. <i>Science Advances</i> , 2017 , 3, e1701084	14.3	110
150	Design, characterization and control of thermally-responsive and magnetically-actuated micro-grippers at the air-water interface. <i>PLoS ONE</i> , 2017 , 12, e0187441	3.7	15
149	DNA sequence-directed shape change of photopatterned hydrogels via high-degree swelling. <i>Science</i> , 2017 , 357, 1126-1130	33.3	227
148	Bidirectional and biaxial curving of thermoresponsive bilayer plates with soft and stiff segments. <i>Extreme Mechanics Letters</i> , 2017 , 16, 6-12	3.9	16
147	Magnetic Motion Control and Planning of Untethered Soft Grippers using Ultrasound Image Feedback. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2017 , 2017, 6156-6161	2.2	15
146	Pneumatic delivery of untethered microgrippers for minimally invasive biopsy 2017 , 2017, 857-860		5
145	Limits of imaging with multilayer hyperbolic metamaterials. <i>Optics Express</i> , 2017 , 25, 13588-13601	3.3	18

144	Stimuli-Responsive Soft Untethered Grippers for Drug Delivery and Robotic Surgery. <i>Frontiers in Mechanical Engineering</i> , 2017 , 3,	2.6	69
143	Janus and patchy nanoparticles: general discussion. <i>Faraday Discussions</i> , 2016 , 191, 117-139	3.6	3
142	Evaluation of an electromagnetic system with haptic feedback for control of untethered, soft grippers affected by disturbances 2016 ,		9
141	Molecular Insights into Division of Single Human Cancer Cells in On-Chip Transparent Microtubes. <i>ACS Nano</i> , 2016 , 10, 5835-46	16.7	24
140	A Self-Folding Hydrogel In Vitro Model for Ductal Carcinoma. <i>Tissue Engineering - Part C: Methods</i> , 2016 , 22, 398-407	2.9	26
139	Self-folding nanostructures with imprint patterned surfaces (SNIPS). <i>Faraday Discussions</i> , 2016 , 191, 61-73	16	12
138	Assembly of a 3D Cellular Computer Using Folded E-Blocks. <i>Micromachines</i> , 2016 , 7,	3.3	7
137	Self-folding microcube antennas for wireless power transfer in dispersive media 2016 , 04, 120-129		8
136	Origami-Inspired 3D Assembly of Egg-Crate Shaped Metamaterials Using Stress and Surface Tension Forces. <i>MRS Advances</i> , 2016 , 1, 1743-1748	0.7	1
135	Control of Untethered Soft Grippers for Pick-and-Place Tasks 2016 , 2016, 299-304	2.3	14
134	Origami MEMS and NEMS. <i>MRS Bulletin</i> , 2016 , 41, 123-129	3.2	211
133	Patterning of Fibroblast and Matrix Anisotropy within 3D Confinement is Driven by the Cytoskeleton. <i>Advanced Healthcare Materials</i> , 2016 , 5, 146-58	10.1	10
132	Self-folding graphene-polymer bilayers. <i>Applied Physics Letters</i> , 2015 , 106, 203108	3.4	50
131	Miniaturized Untethered Tools for Surgery. <i>Advanced Micro & Nanosystems</i> , 2015 , 201-234		1
130	Controlled Release: A Chemical Display: Generating Animations by Controlled Diffusion from Porous Voxels (Adv. Funct. Mater. 26/2015). <i>Advanced Functional Materials</i> , 2015 , 25, 3982-3982	15.6	1
129	A Chemical Display: Generating Animations by Controlled Diffusion from Porous Voxels. <i>Advanced Functional Materials</i> , 2015 , 25, 3998-4004	15.6	5
128	Self-folding thermo-magnetically responsive soft microgrippers. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 3398-405	9.5	341
127	Stimuli-responsive theragrippers for chemomechanical controlled release. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 8045-8049	16.4	146

126	Biopsy using a magnetic capsule endoscope carrying, releasing, and retrieving untethered microgrippers. <i>IEEE Transactions on Biomedical Engineering</i> , 2014 , 61, 513-21	5	142
125	Rolled-up functionalized nanomembranes as three-dimensional cavities for single cell studies. <i>Nano Letters</i> , 2014 , 14, 4197-204	11.5	59
124	Stimuli-Responsive Theragrippers for Chemomechanical Controlled Release. <i>Angewandte Chemie</i> , 2014 , 126, 8183-8187	3.6	36
123	Building polyhedra by self-assembly: theory and experiment. <i>Artificial Life</i> , 2014 , 20, 409-39	1.4	12
122	Self-folding single cell grippers. <i>Nano Letters</i> , 2014 , 14, 4164-70	11.5	112
121	Functional stimuli responsive hydrogel devices by self-folding. <i>Smart Materials and Structures</i> , 2014 , 23, 094008	3.4	112
120	Silane surface modification for improved bioadhesion of esophageal stents. <i>Applied Surface Science</i> , 2014 , 311, 684-689	6.7	19
119	Self-assembly of mesoscale isomers: the role of pathways and degrees of freedom. <i>PLoS ONE</i> , 2014 , 9, e108960	3.7	7
118	Curved and folded micropatterns in 3D cell culture and tissue engineering. <i>Methods in Cell Biology</i> , 2014 , 121, 121-39	1.8	5
117	Ultra-small energy harvesting microsystem for biomedical applications 2014 ,		2
116	Three dimensional self-assembly at the nanoscale 2013 ,		2
115	Micro antennas for implantable medical devices 2013 ,		4
114	Biologic tissue sampling with untethered microgrippers. <i>Gastroenterology</i> , 2013 , 144, 691-3	13.3	23
113	Rolled-up magnetic microdrillers: towards remotely controlled minimally invasive surgery. <i>Nanoscale</i> , 2013 , 5, 1294-1297	7.7	181
112	3D printed bionic ears. <i>Nano Letters</i> , 2013 , 13, 2634-9	11.5	626
111	Stimuli responsive self-folding using thin polymer films. <i>Current Opinion in Chemical Engineering</i> , 2013 , 2, 112-119	5.4	139
110	Tissue Engineering: Bio-Origami Hydrogel Scaffolds Composed of Photocrosslinked PEG Bilayers (Adv. Healthcare Mater. 8/2013). <i>Advanced Healthcare Materials</i> , 2013 , 2, 1066-1066	10.1	9
109	Design for a lithographically patterned bioartificial endocrine pancreas. <i>Artificial Organs</i> , 2013 , 37, 1059-66		14

108	A cellular architecture for self-assembled 3D computational devices 2013 ,		3
107	Bio-origami hydrogel scaffolds composed of photocrosslinked PEG bilayers. <i>Advanced Healthcare Materials</i> , 2013 , 2, 1142-50	10.1	160
106	Origami inspired self-assembly of patterned and reconfigurable particles. <i>Journal of Visualized Experiments</i> , 2013 , e50022	1.6	17
105	Stimuli Responsive Materials: Biopsy with Thermally-Responsive Untethered Microtools (Adv. Mater. 4/2013). <i>Advanced Materials</i> , 2013 , 25, 494-494	24	1
104	Biopsy with thermally-responsive untethered microtools. <i>Advanced Materials</i> , 2013 , 25, 514-9	24	160
103	Self-folding devices and materials for biomedical applications. <i>Trends in Biotechnology</i> , 2012 , 30, 138-46	15.1	181
102	3D small antenna for energy harvesting applications on implantable micro-devices 2012 ,		5
101	Chemistry with spatial control using particles and streams(). <i>RSC Advances</i> , 2012 , 2, 9707-9726	3.7	11
100	Self-propelled nanotools. <i>ACS Nano</i> , 2012 , 6, 1751-6	16.7	333
99	Voltage-gated ion transport through semiconducting conical nanopores formed by metal nanoparticle-assisted plasma etching. <i>Nano Letters</i> , 2012 , 12, 3437-42	11.5	47
98	Self-folding thin-film materials: From nanopolyhedra to graphene origami. <i>MRS Bulletin</i> , 2012 , 37, 847-854	3.4	100
97	Nanowire-based surface-enhanced Raman spectroscopy (SERS) for chemical warfare simulants 2012 ,		2
96	Self-folding polymeric containers for encapsulation and delivery of drugs. <i>Advanced Drug Delivery Reviews</i> , 2012 , 64, 1579-89	18.5	201
95	Initiation of nanoporous energetic silicon by optically-triggered, residual stress powered microactuators 2012 ,		2
94	Laser triggered sequential folding of microstructures. <i>Applied Physics Letters</i> , 2012 , 101, 131901	3.4	54
93	Dielectrophoretic assembly of ordered nanostructures: Harnessing thermal randomness and inter-particle interactions 2012 ,		1
92	Building 3D Nanostructured Devices by Self-Assembly 2011 , 1-28		
91	Three-dimensional microwell arrays for cell culture. <i>Lab on A Chip</i> , 2011 , 11, 127-31	7.2	59

90	Differentially photo-crosslinked polymers enable self-assembling microfluidics. <i>Nature Communications</i> , 2011 , 2, 527	17.4	189
89	Self-folding immunoprotective cell encapsulation devices. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2011 , 7, 686-9	6	34
88	Self-folding micropatterned polymeric containers. <i>Biomedical Microdevices</i> , 2011 , 13, 51-8	3.7	124
87	Enabling cargo-carrying bacteria via surface attachment and triggered release. <i>Small</i> , 2011 , 7, 588-92	11	60
86	Nanoscale origami for 3D optics. <i>Small</i> , 2011 , 7, 1943-8	11	121
85	3D Nanofabrication: Nanoscale Origami for 3D Optics (Small 14/2011). <i>Small</i> , 2011 , 7, 1850-1850	11	0
84	Microchemomechanical Systems. <i>Advanced Functional Materials</i> , 2011 , 21, 2395-2410	15.6	53
83	Three-Dimensional Chemical Patterns for Cellular Self-Organization. <i>Angewandte Chemie</i> , 2011 , 123, 2597-2601	3.6	1
82	Innentitelbild: Three-Dimensional Chemical Patterns for Cellular Self-Organization (Angew. Chem. 11/2011). <i>Angewandte Chemie</i> , 2011 , 123, 2456-2456	3.6	
81	Three-dimensional chemical patterns for cellular self-organization. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 2549-53	16.4	23
80	Inside Cover: Three-Dimensional Chemical Patterns for Cellular Self-Organization (Angew. Chem. Int. Ed. 11/2011). <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 2408-2408	16.4	
79	Tetherless Microgrippers With Transponder Tags. <i>Journal of Microelectromechanical Systems</i> , 2011 , 20, 505-511	2.5	16
78	Quantitative analysis of parallel nanowire array assembly by dielectrophoresis. <i>Nanoscale</i> , 2011 , 3, 1059-65	7.5	20
77	Fabrication and characterization of RF nanoantenna on a nanoliter-scale 3D microcontainer. <i>Nanotechnology</i> , 2011 , 22, 455303	3.4	4
76	Algorithmic design of self-folding polyhedra. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 19885-90	11.5	78
75	Fabrication and Applications of Three Dimensional Porous Microwells. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1272, 1		
74	A three dimensional self-folding package (SFP) for electronics. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1249, 1		3
73	Three-dimensional surface current loops in terahertz responsive microarrays. <i>Applied Physics Letters</i> , 2010 , 96, 191108	3.4	16

72	Enzymatically triggered actuation of miniaturized tools. <i>Journal of the American Chemical Society</i> , 2010 , 132, 16314-7	16.4	95
71	Plastic deformation drives wrinkling, saddling, and wedging of annular bilayer nanostructures. <i>Nano Letters</i> , 2010 , 10, 5098-102	11.5	26
70	Importance of surface patterns for defect mitigation in three-dimensional self-assembly. <i>Langmuir</i> , 2010 , 26, 12534-9	4	26
69	Three dimensional nanofabrication using surface forces. <i>Langmuir</i> , 2010 , 26, 16534-9	4	48
68	Capillary And Magnetic Forces For Microscale Self-Assembled Systems. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1272, 1		
67	Fabrication of 3D nanostructures with lithographically patterned surfaces by self-folding 2010 ,		3
66	A one-step etching method to produce gold nanoparticle coated silicon microwells and microchannels. <i>Analytical and Bioanalytical Chemistry</i> , 2010 , 398, 2949-54	4.4	5
65	Electrochemically grown rough-textured nanowires. <i>Journal of Nanoparticle Research</i> , 2010 , 12, 1065-1073		4
64	Reversible actuation of microstructures by surface-chemical modification of thin-film bilayers. <i>Advanced Materials</i> , 2010 , 22, 407-10	24	47
63	Curving nanostructures using extrinsic stress. <i>Advanced Materials</i> , 2010 , 22, 2320-4	24	55
62	Nanofabrication: Curving Nanostructures Using Extrinsic Stress (Adv. Mater. 21/2010). <i>Advanced Materials</i> , 2010 , 22, n/a-n/a	24	1
61	Spatiotemporally Controlled Nanoliter-Scale Reconfigurable Microfluidics 2010 , 39-62		
60	Photolithographically patterned smart hydrogel based bilayer actuators. <i>Polymer</i> , 2010 , 51, 6093-6098	3.9	185
59	Directed growth of fibroblasts into three dimensional micropatterned geometries via self-assembling scaffolds. <i>Biomaterials</i> , 2010 , 31, 1683-90	15.6	81
58	Three-dimensional fabrication at small size scales. <i>Small</i> , 2010 , 6, 792-806	11	212
57	Microassembly based on hands free origami with bidirectional curvature. <i>Applied Physics Letters</i> , 2009 , 95, 91901	3.4	110
56	Self-Assembly of Three-Dimensional Nanoporous Containers. <i>Nano</i> , 2009 , 4, 1-5	1.1	11
55	Tetherless thermobiochemically actuated microgrippers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 703-8	11.5	299

54	Tetherless, 3D, Micro-Nanoscale Tools and Devices for Lab on a Chip Applications. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1191, 13		
53	Hierarchical self-assembly of complex polyhedral microcontainers. <i>Journal of Micromechanics and Microengineering</i> , 2009 , 19, 1-6	2	27
52	A Facile Method for Patterning Substrates with Zinc Oxide Nanowires. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1174, 105		
51	Self-assembly of lithographically patterned nanoparticles. <i>Nano Letters</i> , 2009 , 9, 4049-52	11.5	90
50	Size selective sampling using mobile, 3D nanoporous membranes. <i>Analytical and Bioanalytical Chemistry</i> , 2009 , 393, 1217-24	4.4	14
49	Toward a miniaturized mechanical surgeon. <i>Materials Today</i> , 2009 , 12, 14-20	21.8	53
48	Patternable nanowire sensors for electrochemical recording of dopamine. <i>Analytical Chemistry</i> , 2009 , 81, 9979-84	7.8	45
47	. <i>Journal of Microelectromechanical Systems</i> , 2009 , 18, 784-791	2.5	38
46	Compactness determines the success of cube and octahedron self-assembly. <i>PLoS ONE</i> , 2009 , 4, e4451	3.7	30
45	Hyperthermia with magnetic nanowires for inactivating living cells. <i>Journal of Nanoscience and Nanotechnology</i> , 2008 , 8, 2323-7	1.3	45
44	Self-loading lithographically structured microcontainers: 3D patterned, mobile microwells. <i>Lab on A Chip</i> , 2008 , 8, 1621-4	7.2	59
43	. <i>Journal of Microelectromechanical Systems</i> , 2008 , 17, 265-271	2.5	11
42	Solvent driven motion of lithographically fabricated gels. <i>Langmuir</i> , 2008 , 24, 12158-63	4	69
41	Pick-and-place using chemically actuated microgrippers. <i>Journal of the American Chemical Society</i> , 2008 , 130, 17238-9	16.4	83
40	Concentric ring pattern formation in heated chromium-gold thin films on silicon. <i>Applied Physics Letters</i> , 2008 , 92, 211907	3.4	4
39	Self-assembly of orthogonal three-axis sensors. <i>Applied Physics Letters</i> , 2008 , 93, 043505	3.4	31
38	NANOWIRE ASSEMBLY AND INTEGRATION 2008 , 187-211		3
37	Thin film stress driven self-folding of microstructured containers. <i>Small</i> , 2008 , 4, 1605-9	11	91

36	Patterning Thin Film Mechanical Properties to Drive Assembly of Complex 3D Structures. <i>Advanced Materials</i> , 2008 , 20, 4760-4764	24	50
35	Surface tension-driven self-folding polyhedra. <i>Langmuir</i> , 2007 , 23, 8747-51	4	131
34	Correlations between SFG Spectra and Electrical Properties of Organic Field Effect Transistors. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 13250-13255	3.8	36
33	Three-dimensional electrically interconnected nanowire networks formed by diffusion bonding. <i>Langmuir</i> , 2007 , 23, 979-82	4	30
32	Remote radio-frequency controlled nanoliter chemistry and chemical delivery on substrates. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 4991-4	16.4	26
31	MRI of regular-shaped cell-encapsulating polyhedral microcontainers. <i>Magnetic Resonance in Medicine</i> , 2007 , 58, 1283-7	4.4	8
30	3D lithographically fabricated nanoliter containers for drug delivery. <i>Advanced Drug Delivery Reviews</i> , 2007 , 59, 1547-61	18.5	72
29	Cell viability and noninvasive in vivo MRI tracking of 3D cell encapsulating self-assembled microcontainers. <i>Cell Transplantation</i> , 2007 , 16, 403-8	4	15
28	Integrating nanowires with substrates using directed assembly and nanoscale soldering. <i>IEEE Nanotechnology Magazine</i> , 2006 , 5, 62-66	2.6	53
27	Dielectrophoretic assembly of reversible and irreversible metal nanowire networks and vertically aligned arrays. <i>Applied Physics Letters</i> , 2006 , 88, 233118	3.4	48
26	Probing organic field effect transistors in situ during operation using SFG. <i>Journal of the American Chemical Society</i> , 2006 , 128, 6528-9	16.4	70
25	Spatially controlled chemistry using remotely guided nanoliter scale containers. <i>Journal of the American Chemical Society</i> , 2006 , 128, 11336-7	16.4	63
24	Kinetics of ultraviolet and plasma surface modification of poly(dimethylsiloxane) probed by sum frequency vibrational spectroscopy. <i>Langmuir</i> , 2006 , 22, 1863-8	4	117
23	Reflow and electrical characteristics of nanoscale solder. <i>Small</i> , 2006 , 2, 225-9	11	29
22	Scanning surface-enhanced Raman spectroscopy of silver nanowires 2005 , 5927, 337		1
21	The bonding of nanowire assemblies using adhesive and solder. <i>Jom</i> , 2005 , 57, 60-64	2.1	30
20	Self-assembled three dimensional radio frequency (RF) shielded containers for cell encapsulation. <i>Biomedical Microdevices</i> , 2005 , 7, 341-5	3.7	58
19	Micropatterned agarose gels for stamping arrays of proteins and gradients of proteins. <i>Proteomics</i> , 2004 , 4, 2366-76	4.8	119

18	Surface tension driven self-assembly of bundles and networks of 200 nm diameter rods using a polymerizable adhesive. <i>Langmuir</i> , 2004 , 20, 11308-11	4	31
17	Fabrication of Micrometer-Scale, Patterned Polyhedra by Self-Assembly. <i>Advanced Materials</i> , 2002 , 14, 235-238	24	141
16	Interaction of fibrinogen with surfaces of end-group-modified polyurethanes: a surface-specific sum-frequency-generation vibrational spectroscopy study. <i>Journal of Biomedical Materials Research Part B</i> , 2002 , 62, 254-64		74
15	Biomimetic self-assembly of helical electrical circuits using orthogonal capillary interactions. <i>Applied Physics Letters</i> , 2002 , 80, 2802-2804	3-4	33
14	Biomimetic self-assembly of a functional asymmetrical electronic device. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002 , 99, 4937-40	11.5	83
13	Fabrication of a cylindrical display by patterned assembly. <i>Science</i> , 2002 , 296, 323-5	33.3	353
12	Competition of intrinsic and topographically imposed patterns in Bénard-Marangoni convection. <i>Applied Physics Letters</i> , 2001 , 79, 439-441	3-4	20
11	Forming electrical networks in three dimensions by self-assembly. <i>Science</i> , 2000 , 289, 1170-2	33.3	413
10	Transitions from nanoscale to microscale dynamic friction mechanisms on polyethylene and silicon surfaces. <i>Journal of Applied Physics</i> , 2000 , 87, 3143-3150	2.5	28
9	A study of the glass transition of polypropylene surfaces by sum-frequency vibrational spectroscopy and scanning force microscopy. <i>Chemical Physics</i> , 1999 , 245, 277-284	2.3	65
8	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. <i>Applied Physics B: Lasers and Optics</i> , 1999 , 68, 549-557	1.9	49
7	Molecular Characterization of Polymer and Polymer Blend Surfaces. Combined Sum Frequency Generation Surface Vibrational Spectroscopy and Scanning Force Microscopy Studies. <i>Accounts of Chemical Research</i> , 1999 , 32, 930-940	24.3	97
6	Surface chemistry-mechanical property relationship of low density polyethylene: an IR+visible sum frequency generation spectroscopy and atomic force microscopy study. <i>Tribology Letters</i> , 1998 , 4, 231-235	2.8	9
5	Surface Studies of Polymer Blends by Sum Frequency Vibrational Spectroscopy, Atomic Force Microscopy, and Contact Angle Goniometry. <i>Journal of Physical Chemistry B</i> , 1998 , 102, 6225-6230	3-4	51
4	Lithographic Fabrication of Model Systems in Heterogeneous Catalysis and Surface Science Studies. <i>Langmuir</i> , 1998 , 14, 1458-1464	4	60
3	Continuum Force Microscopy Study of the Elastic Modulus, Hardness and Friction of Polyethylene and Polypropylene Surfaces. <i>Macromolecules</i> , 1998 , 31, 1269-1276	5.5	82
2	Forming low resistance nano-scale contacts using solder reflow		1
1	Interfacial adhesion of thin-film patterned interconnect structures		2

