George M Whitesides

List of Publications by Citations

415 papers	104,216 citations	129 h-index	321 g-index
431 ext. papers	113,939 ext. citations	11.2 avg, IF	8.62 L-index

#	Paper	IF	Citations
415	Self-assembled monolayers of thiolates on metals as a form of nanotechnology. *Chemical Reviews*, **2005**, 105, 1103-69	68.1	6730
414	The origins and the future of microfluidics. *Nature*, **2006**, 442, 368-73	50.4	6335
413	Self-assembly at all scales. *Science*, **2002**, 295, 2418-21	33.3	5583
412	Rapid Prototyping of Microfluidic Systems in Poly(dimethylsiloxane). *Analytical Chemistry*, **1998**, 70, 4974-84	7.8	4213
411	SOFT LITHOGRAPHY. *Annual Review of Materials Research*, **1998**, 28, 153-184		3912
410	Soft Lithography. *Angewandte Chemie - International Edition*, **1998**, 37, 550-575	16.4	3737
409	Polyvalent Interactions in Biological Systems: Implications for Design and Use of Multivalent Ligands and Inhibitors. *Angewandte Chemie - International Edition*, **1998**, 37, 2754-2794	16.4	3250
408	Fabrication of microfluidic systems in poly(dimethylsiloxane). *Electrophoresis*, **2000**, 21, 27-40	3.6	2618
407	Chaotic mixer for microchannels. *Science*, **2002**, 295, 647-51	33.3	2471
406	Soft lithography in biology and biochemistry. *Annual Review of Biomedical Engineering*, **2001**, 3, 335-73	12	2115
405	Patterned paper as a platform for inexpensive, low-volume, portable bioassays. *Angewandte Chemie - International Edition*, **2007**, 46, 1318-20	16.4	2111
404	Diagnostics for the developing world: microfluidic paper-based analytical devices. *Analytical Chemistry*, **2010**, 82, 3-10	7.8	1986
403	Solvent compatibility of poly(dimethylsiloxane)-based microfluidic devices. *Analytical Chemistry*, **2003**, 75, 6544-54	7.8	1901
402	Spontaneous formation of ordered structures in thin films of metals supported on an elastomeric polymer. *Nature*, **1998**, 393, 146-149	50.4	1870
401	Formation of droplets and bubbles in a microfluidic T-junction-scaling and mechanism of break-up. *Lab on A Chip*, **2006**, 6, 437-46	7.2	1550
400	Features of gold having micrometer to centimeter dimensions can be formed through a combination of stamping with an elastomeric stamp and an alkanethiol □hk□ followed by chemical etching. *Applied Physics Letters*, **1993**, 63, 2002-2004	3.4	1339
399	Multigait soft robot. *Proceedings of the National Academy of Sciences of the United States of America* , **2011**, 108, 20400-3	11.5	1309

398	Beyond molecules: self-assembly of mesoscopic and macroscopic components. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 4769-74	11.5	1217
397	Understanding wax printing: a simple micropatterning process for paper-based microfluidics. *Analytical Chemistry*, **2009**, 81, 7091-5	7.8	1170
396	An integrated design and fabrication strategy for entirely soft, autonomous robots. *Nature*, **2016**, 536, 451-5	50.4	1073
395	Eutectic Gallium-Indium (EGaIn): A Liquid Metal Alloy for the Formation of Stable Structures in Microchannels at Room Temperature. *Advanced Functional Materials*, **2008**, 18, 1097-1104	15.6	927
394	Generation of Solution and Surface Gradients Using Microfluidic Systems. *Langmuir*, **2000**, 16, 8311-8316	4	776
393	Polymer microstructures formed by moulding in capillaries. *Nature*, **1995**, 376, 581-584	50.4	766
392	Pneumatic Networks for Soft Robotics that Actuate Rapidly. *Advanced Functional Materials*, **2014**, 24, 2163-2170	15.6	763
391	Ionic skin. *Advanced Materials*, **2014**, 26, 7608-14	24	760
390	Electrochemical sensing in paper-based microfluidic devices. *Lab on A Chip*, **2010**, 10, 477-83	7.2	752
389	Control of crystal nucleation by patterned self-assembled monolayers. *Nature*, **1999**, 398, 495-498	50.4	741
388	Effect of Surface Wettability on the Adsorption of Proteins and Detergents. *Journal of the American Chemical Society*, **1998**, 120, 3464-3473	16.4	712
387	Soft robotics for chemists. *Angewandte Chemie - International Edition*, **2011**, 50, 1890-5	16.4	691
386	Generation of Gradients Having Complex Shapes Using Microfluidic Networks. *Analytical Chemistry*, **2001**, 73, 1240-1246	7.8	669
385	The 'right' size in nanobiotechnology. *Nature Biotechnology*, **2003**, 21, 1161-5	44.5	667
384	Generation of monodisperse particles by using microfluidics: control over size, shape, and composition. *Angewandte Chemie - International Edition*, **2005**, 44, 724-8	16.4	642
383	Zwitterionic SAMs that Resist Nonspecific Adsorption of Protein from Aqueous Buffer. *Langmuir*, **2001**, 17, 2841-2850	4	640
382	A Resilient, Untethered Soft Robot. *Soft Robotics*, **2014**, 1, 213-223	9.2	612
381	SOFT ROBOTICS. A 3D-printed, functionally graded soft robot powered by combustion. *Science*, **2015**, 349, 161-5	33.3	608

380	Micropatterned surfaces for control of cell shape, position, and function. *Biotechnology Progress*, **1998**, 14, 356-63	2.8	579
379	Electron transport through thin organic films in metal--insulator--metal junctions based on self-assembled monolayers. *Journal of the American Chemical Society*, **2001**, 123, 5075-85	16.4	560
378	The controlled formation of ordered, sinusoidal structures by plasma oxidation of an elastomeric polymer. *Applied Physics Letters*, **1999**, 75, 2557-2559	3.4	557
377	Self-Assembly of Mesoscale Objects into Ordered Two-Dimensional Arrays. *Science*, **1997**, 276, 233-5	33.3	555
376	Monolayer films prepared by the spontaneous self-assembly of symmetrical and unsymmetrical dialkyl sulfides from solution onto gold substrates: structure, properties, and reactivity of constituent functional groups. *Langmuir*, **1988**, 4, 365-385	4	532
375	Nanoscience, nanotechnology, and chemistry. *Small*, **2005**, 1, 172-9	11	515
374	Polyvalente Wechselwirkungen in biologischen Systemen: Auswirkungen auf das Design und die Verwendung multivalenter Liganden und Inhibitoren. *Angewandte Chemie*, **1998**, 110, 2908-2953	3.6	505
373	Formation of monodisperse bubbles in a microfluidic flow-focusing device. *Applied Physics Letters*, **2004**, 85, 2649-2651	3.4	501
372	Molecular Self-Assembly of Aliphatic Thiols on Gold Colloids. *Langmuir*, **1996**, 12, 3763-3772	4	469
371	Mirrorless lasing from mesostructured waveguides patterned by soft lithography. *Science*, **2000**, 287, 465-8	33.3	449
370	Experimental and theoretical scaling laws for transverse diffusive broadening in two-phase laminar flows in microchannels. *Applied Physics Letters*, **2000**, 76, 2376-2378	3.4	436
369	Eutectic gallium-indium (EGaIn): a moldable liquid metal for electrical characterization of self-assembled monolayers. *Angewandte Chemie - International Edition*, **2008**, 47, 142-4	16.4	427
368	Dynamic self-assembly of magnetized, millimetre-sized objects rotating at a liquid-air interface. *Nature*, **2000**, 405, 1033-6	50.4	427
367	Mechanism for flow-rate controlled breakup in confined geometries: a route to monodisperse emulsions. *Physical Review Letters*, **2005**, 94, 164501	7.4	426
366	Soft Robotics for Chemists. *Angewandte Chemie*, **2011**, 123, 1930-1935	3.6	421
365	Subcellular positioning of small molecules. *Nature*, **2001**, 411, 1016	50.4	419
364	Forming electrical networks in three dimensions by self-assembly. *Science*, **2000**, 289, 1170-2	33.3	413
363	Integration of paper-based microfluidic devices with commercial electrochemical readers. *Lab on A Chip*, **2010**, 10, 3163-9	7.2	406

362	Micromolding in Capillaries: Applications in Materials Science. *Journal of the American Chemical Society*, **1996**, 118, 5722-5731	16.4	388
361	Elastomeric Origami: Programmable Paper-Elastomer Composites as Pneumatic Actuators. *Advanced Functional Materials*, **2012**, 22, 1376-1384	15.6	384
360	Enzymes as Catalysts in Synthetic Organic Chemistry [New Synthetic Methods (53)]. *Angewandte Chemie International Edition in English*, **1985**, 24, 617-638		371
359	Ordering of Spontaneously Formed Buckles on Planar Surfaces. *Langmuir*, **2000**, 16, 3497-3501	4	367
358	Geometric control of switching between growth, apoptosis, and differentiation during angiogenesis using micropatterned substrates. *In Vitro Cellular and Developmental Biology - Animal*, **1999**, 35, 441-8	2.6	350
357	Submicrometer patterning of charge in thin-film electrets. *Science*, **2001**, 291, 1763-6	33.3	342
356	Fabrication and Wetting Properties of Metallic Half-Shells with Submicron Diameters. *Nano Letters*, **2002**, 2, 891-894	11.5	319
355	Modeling Organic Surfaces with Self-Assembled Monolayers. *Angewandte Chemie International Edition in English*, **1989**, 28, 506-512		317
354	Surface Plasmon Resonance Permits in Situ Measurement of Protein Adsorption on Self-Assembled Monolayers of Alkanethiolates on Gold. *Langmuir*, **1995**, 11, 4383-4385	4	316
353	UNCONVENTIONAL NANOFABRICATION. *Annual Review of Materials Research*, **2004**, 34, 339-372	12.8	310
352	Soft Robotics. *Angewandte Chemie - International Edition*, **2018**, 57, 4258-4273	16.4	307
351	Combined microfluidic-micromagnetic separation of living cells in continuous flow. *Biomedical Microdevices*, **2006**, 8, 299-308	3.7	307
350	Comparison of Organic Monolayers on Polycrystalline Gold Spontaneously Assembled from Solutions Containing Dialkyl Disulfides or Alkanethiols. *Langmuir*, **1994**, 10, 1825-1831	4	305
349	Using Mixed Self-Assembled Monolayers Presenting RGD and (EG)3OH Groups To Characterize Long-Term Attachment of Bovine Capillary Endothelial Cells to Surfaces. *Journal of the American Chemical Society*, **1998**, 120, 6548-6555	16.4	300
348	The pressure drop along rectangular microchannels containing bubbles. *Lab on A Chip*, **2007**, 7, 1479-89	7.2	290
347	Microfabrication through Electrostatic Self-Assembly. *Langmuir*, **1997**, 13, 5349-5355	4	274
346	Soft Lithography **1998**, 37, 550		272
345	Emulsification in a microfluidic flow-focusing device: effect of the viscosities of the liquids. *Microfluidics and Nanofluidics*, **2008**, 5, 585-594	2.8	264

344	Fabricating large arrays of microwells with arbitrary dimensions and filling them using discontinuous dewetting. *Analytical Chemistry*, **1998**, 70, 2280-7	7.8	254
343	Using an elastomeric phase mask for sub-100 nm photolithography in the optical near field. *Applied Physics Letters*, **1997**, 70, 2658-2660	3.4	253
342	Alkanethiol self-assembled monolayers as the dielectric of capacitors with nanoscale thickness. *Applied Physics Letters*, **1998**, 72, 1781-1783	3.4	252
341	Design and self-assembly of open, regular, 3D mesostructures. *Science*, **1999**, 284, 948-51	33.3	250
340	Paper-Based Electrical Respiration Sensor. *Angewandte Chemie - International Edition*, **2016**, 55, 5727-32	16.4	250
339	Designing a polyvalent inhibitor of anthrax toxin. *Nature Biotechnology*, **2001**, 19, 958-61	44.5	246
338	Microcontact Printing of Palladium Colloids:´Micron-Scale Patterning by Electroless Deposition of Copper. *Langmuir*, **1996**, 12, 1375-1380	4	239
337	Three-dimensional self-assembly of millimetre-scale components. *Nature*, **1997**, 386, 162-164	50.4	229
336	Molecular rectification in metal-SAM-metal oxide-metal junctions. *Journal of the American Chemical Society*, **2009**, 131, 17814-27	16.4	227
335	"Paper Machine" for Molecular Diagnostics. *Analytical Chemistry*, **2015**, 87, 7595-601	7.8	223
334	Contact Angles for Liquid Drops at a Model Heterogeneous Surface Consisting of Alternating and Parallel Hydrophobic/Hydrophilic Strips. *Langmuir*, **1996**, 12, 1913-1922	4	221
333	A three-dimensional actuated origami-inspired transformable metamaterial with multiple degrees of freedom. *Nature Communications*, **2016**, 7, 10929	17.4	219
332	Molecular rectification in a metal-insulator-metal junction based on self-assembled monolayers. *Journal of the American Chemical Society*, **2002**, 124, 11730-6	16.4	219
331	Universal mobile electrochemical detector designed for use in resource-limited applications. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 11984-9	11.5	212
330	Towards a soft pneumatic glove for hand rehabilitation **2013**,		210
329	Patterning Ligands on Reactive SAMs by Microcontact Printing. *Langmuir*, **1999**, 15, 2055-2060	4	210
328	Thread as a matrix for biomedical assays. *ACS Applied Materials & Interfaces*, **2010**, 2, 1722-8	9.5	200
327	Coding/decoding and reversibility of droplet trains in microfluidic networks. *Science*, **2007**, 315, 828-32	33.3	192

326	Influence of defects on the electrical characteristics of mercury-drop junctions: self-assembled monolayers of n-alkanethiolates on rough and smooth silver. *Journal of the American Chemical Society*, **2007**, 129, 4336-49	16.4	190
325	Mesoscale Self-Assembly of Hexagonal Plates Using Lateral Capillary Forces: Synthesis Using the "Capillary Bond" *Journal of the American Chemical Society*, **1999**, 121, 5373-5391	16.4	189
324	Charge transport and rectification in arrays of SAM-based tunneling junctions. *Nano Letters*, **2010**, 10, 3611-9	11.5	188
323	Extending Microcontact Printing as a Microlithographic Technique. *Langmuir*, **1997**, 13, 2059-2067	4	187
322	Buckling of Elastomeric Beams Enables Actuation of Soft Machines. *Advanced Materials*, **2015**, 27, 6323-7	24	182
321	Autocatalytic, bistable, oscillatory networks of biologically relevant organic reactions. *Nature*, **2016**, 537, 656-60	50.4	179
320	Integrating Electronics and Microfluidics on Paper. *Advanced Materials*, **2016**, 28, 5054-63	24	176
319	Defining the value of injection current and effective electrical contact area for EGaIn-based molecular tunneling junctions. *Journal of the American Chemical Society*, **2013**, 135, 18131-44	16.4	172
318	Si/SiO2-templated formation of ultraflat metal surfaces on glass, polymer, and solder supports: their use as substrates for self-assembled monolayers. *Langmuir*, **2007**, 23, 9686-94	4	172
317	Mechanism of rectification in tunneling junctions based on molecules with asymmetric potential drops. *Journal of the American Chemical Society*, **2010**, 132, 18386-401	16.4	171
316	Controlling local disorder in self-assembled monolayers by patterning the topography of their metallic supports. *Nature*, **1998**, 394, 868-871	50.4	170
315	A soft, bistable valve for autonomous control of soft actuators. *Science Robotics*, **2018**, 3,	18.6	169
314	Controlling Mammalian Cell Spreading and Cytoskeletal Arrangement with Conveniently Fabricated Continuous Wavy Features on Poly(dimethylsiloxane). *Langmuir*, **2002**, 18, 3273-3280	4	169
313	Self-Assembled Monolayers on Gold Generated from Alkanethiols with the Structure RNHCOCH2SH. *Langmuir*, **1995**, 11, 4371-4382	4	167
312	Using explosions to power a soft robot. *Angewandte Chemie - International Edition*, **2013**, 52, 2892-6	16.4	166
311	Separation of nanoparticles in aqueous multiphase systems through centrifugation. *Nano Letters*, **2012**, 12, 4060-4	11.5	166
310	Affinity capillary electrophoresis: a physical-organic tool for studying interactions in biomolecular recognition. *Electrophoresis*, **1998**, 19, 367-82	3.6	166
309	Open-Source Potentiostat for Wireless Electrochemical Detection with Smartphones. *Analytical Chemistry*, **2018**, 90, 6240-6246	7.8	165

308	Pneumatic Energy Sources for Autonomous and Wearable Soft Robotics. *Soft Robotics*, **2014**, 1, 263-274	9.2	160
307	Electrical Resistance of AgTS–(CH2)n–1CH3//Ga2O3/EGaIn Tunneling Junctions. *Journal of Physical Chemistry C*, **2012**, 116, 10848-10860	3.8	159
306	Odd-even effects in charge transport across self-assembled monolayers. *Journal of the American Chemical Society*, **2011**, 133, 2962-75	16.4	158
305	A Hybrid Combining Hard and Soft Robots. *Soft Robotics*, **2014**, 1, 70-74	9.2	157
304	Formation of Patterned Microstructures of Conducting Polymers by Soft Lithography, and Applications in Microelectronic Device Fabrication. *Advanced Materials*, **1999**, 11, 1038-1041	24	157
303	Paper-based electroanalytical devices for accessible diagnostic testing. *MRS Bulletin*, **2013**, 38, 309-314	3.2	156
302	Cofactor regeneration for enzyme-catalysed synthesis. *Biotechnology and Genetic Engineering Reviews*, **1988**, 6, 221-70	4.1	156
301	Soft Actuators and Robots that Are Resistant to Mechanical Damage. *Advanced Functional Materials*, **2014**, 24, 3003-3010	15.6	152
300	Self-assembly of 10-microm-sized objects into ordered three-dimensional arrays. *Journal of the American Chemical Society*, **2001**, 123, 7677-82	16.4	151
299	Buckling Pneumatic Linear Actuators Inspired by Muscle. *Advanced Materials Technologies*, **2016**, 1, 1600055	6.5	151
298	Water-soluble sacrificial layers for surface micromachining. *Small*, **2005**, 1, 730-6	11	149
297	Manipulation of magnetic microbeads in suspension using micromagnetic systems fabricated with soft lithography. *Applied Physics Letters*, **2001**, 78, 1775-1777	3.4	149
296	Don't forget long-term fundamental research in energy. *Science*, **2007**, 315, 796-8	33.3	148
295	Microcontact Printing of Alkanethiols on Silver and Its Application in Microfabrication. *Journal of the Electrochemical Society*, **1996**, 143, 1070-1079	3.9	146
294	Measuring densities of solids and liquids using magnetic levitation: fundamentals. *Journal of the American Chemical Society*, **2009**, 131, 10049-58	16.4	144
293	Omniphobic RF Paper Produced by Silanization of Paper with Fluoroalkyltrichlorosilanes. *Advanced Functional Materials*, **2014**, 24, 60-70	15.6	141
292	Reinventing chemistry. *Angewandte Chemie - International Edition*, **2015**, 54, 3196-209	16.4	137
291	A magnetic trap for living cells suspended in a paramagnetic buffer. *Applied Physics Letters*, **2004**, 85, 2411-2413	3.4	137

290	X-ray grazing incidence diffraction from alkylsiloxane monolayers on silicon wafers. *Journal of Chemical Physics*, **1991**, 95, 2854-2861	3.9	137
289	Microcontact Printing of Alkanethiols on Copper and Its Application in Microfabrication. *Chemistry of Materials*, **1996**, 8, 601-603	9.6	135
288	Fabrication of magnetic microfiltration systems using soft lithography. *Applied Physics Letters*, **2002**, 80, 461-463	3.4	134
287	Micromolding of Polymers in Capillaries: Applications in Microfabrication. *Chemistry of Materials*, **1996**, 8, 1558-1567	9.6	129
286	Formation and Reaction of Interchain Carboxylic Anhydride Groups on Self-Assembled Monolayers on Gold. *Langmuir*, **1997**, 13, 6704-6712	4	127
285	Surface-Initiated Ring-Opening Metathesis Polymerization on Si/SiO2. *Macromolecules*, **2000**, 33, 2793-2795	5.5	126
284	Non-Photolithographic Methods for Fabrication of Elastomeric Stamps for Use in Microcontact Printing. *Langmuir*, **1996**, 12, 4033-4038	4	123
283	Using Surface Plasmon Resonance Spectroscopy To Measure the Association of Detergents with Self-Assembled Monolayers of Hexadecanethiolate on Gold. *Langmuir*, **1997**, 13, 2749-2755	4	122
282	A Paper-Based "Pop-up" Electrochemical Device for Analysis of Beta-Hydroxybutyrate. *Analytical Chemistry*, **2016**, 88, 6326-33	7.8	120
281	Self-Assembled Monolayers of Alkanethiolates Presenting Tri(propylene sulfoxide) Groups Resist the Adsorption of Protein. *Journal of the American Chemical Society*, **1996**, 118, 5136-5137	16.4	118
280	Paper-based potentiometric ion sensing. *Analytical Chemistry*, **2014**, 86, 9548-53	7.8	117
279	Mixing with bubbles: a practical technology for use with portable microfluidic devices. *Lab on A Chip*, **2006**, 6, 207-12	7.2	116
278	From the bench to the field in low-cost diagnostics: two case studies. *Angewandte Chemie - International Edition*, **2015**, 54, 5836-53	16.4	114
277	Fabrication of Glass Microstructures by Micro-Molding of Sol-Gel Precursors. *Advanced Materials*, **1998**, 10, 571-574	24	114
276	Electrically Activated Paper Actuators. *Advanced Functional Materials*, **2016**, 26, 2446-2453	15.6	113
275	A paper-based invasion assay: assessing chemotaxis of cancer cells in gradients of oxygen. *Biomaterials*, **2015**, 52, 262-71	15.6	111
274	Fabrication of Low-Cost Paper-Based Microfluidic Devices by Embossing or Cut-and-Stack Methods. *Chemistry of Materials*, **2014**, 26, 4230-4237	9.6	111
273	Imbibition and Flow of Wetting Liquids in Noncircular Capillaries. *Journal of Physical Chemistry B*, **1997**, 101, 855-863	3.4	111

272	Designing ligands to bind proteins. *Quarterly Reviews of Biophysics*, **2005**, 38, 385-95	7	111
271	Microscope Projection Photolithography for Rapid Prototyping of Masters with Micron-Scale Features for Use in Soft Lithography. *Langmuir*, **2001**, 17, 6005-6012	4	111
270	Microfluidics Section: Design and Fabrication of Integrated Passive Valves and Pumps for Flexible Polymer 3-Dimensional Microfluidic Systems. *Biomedical Microdevices*, **2002**, 4, 117-121	3.7	110
269	Microfluidic arrays of fluid-fluid diffusional contacts as detection elements and combinatorial tools. *Analytical Chemistry*, **2001**, 73, 5207-13	7.8	110
268	Prototyping of masks, masters, and stamps/molds for soft lithography using an office printer and photographic reduction. *Analytical Chemistry*, **2000**, 72, 3176-80	7.8	109
267	Quantifying distortions in soft lithography. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **1998**, 16, 88		108
266	Viscoelastic properties of oxide-coated liquid metals. *Journal of Rheology*, **2009**, 53, 1305-1326	4.1	107
265	Using magnetic levitation for three dimensional self-assembly. *Advanced Materials*, **2011**, 23, 4134-40	24	105
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263	Fabrication of arrays of two-dimensional micropatterns using microspheres as lenses for projection photolithography. *Applied Physics Letters*, **2001**, 78, 2273-2275	3.4	103
262	Fabrication of Arrays of Microlenses with Controlled Profiles Using Gray-Scale Microlens Projection Photolithography. *Langmuir*, **2002**, 18, 9312-9318	4	102
261	Enzyme in der organischen Synthese. *Angewandte Chemie*, **1985**, 97, 617-638	3.6	102
260	Is it the shape of the cavity, or the shape of the water in the cavity?. *European Physical Journal: Special Topics*, **2014**, 223, 853-891	2.3	101
259	Nonlinear dynamics of a flow-focusing bubble generator: an inverted dripping faucet. *Physical Review Letters*, **2005**, 94, 234502	7.4	100
258	Magnetic Assembly of Soft Robots with Hard Components. *Advanced Functional Materials*, **2014**, 24, 2180-2187	15.6	98
257	Formation of bubbles and droplets in parallel, coupled flow-focusing geometries. *Small*, **2008**, 4, 1795-805	11	98
256	Magnetic levitation in the analysis of foods and water. *Journal of Agricultural and Food Chemistry*, **2010**, 58, 6565-9	5.7	97
255	The rate of charge tunneling through self-assembled monolayers is insensitive to many functional group substitutions. *Angewandte Chemie - International Edition*, **2012**, 51, 4658-61	16.4	95

254	Molecular engineering of surfaces using self-assembled monolayers. *Science Progress*, **2005**, 88, 17-48	1.1	95
253	Design, Synthesis, and Characterization of a High-Affinity Trivalent System Derived from Vancomycin and l-Lys-d-Ala-d-Ala. *Journal of the American Chemical Society*, **2000**, 122, 2698-2710	16.4	95
252	Self-Assembly of Microscale Objects at a Liquid/Liquid Interface through Lateral Capillary Forces. *Langmuir*, **2001**, 17, 1757-1765	4	95
251	Aqueous multiphase systems of polymers and surfactants provide self-assembling step-gradients in density. *Journal of the American Chemical Society*, **2012**, 134, 9094-7	16.4	93
250	Density-based separation in multiphase systems provides a simple method to identify sickle cell disease. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 14864-9	11.5	92
249	Fabrication of glassy carbon microstructures by pyrolysis of microfabricated polymeric precursors. *Advanced Materials*, **1997**, 9, 477-480	24	92
248	The rate of charge tunneling is insensitive to polar terminal groups in self-assembled monolayers in Ag(TS)S(CH2)(n)M(CH2)(m)T//Ga2O3/EGaIn junctions. *Journal of the American Chemical Society*, **2014**, 136, 16-9	16.4	90
247	Statistical Tools for Analyzing Measurements of Charge Transport. *Journal of Physical Chemistry C*, **2012**, 116, 6714-6733	3.8	90
246	Using Self-Assembled Monolayers That Present Oligo(ethylene glycol) Groups To Control the Interactions of Proteins with Surfaces. *ACS Symposium Series*, **1997**, 361-373	0.4	90
245	Using Elastomeric Membranes as Dry Resists and for Dry Lift-Off. *Langmuir*, **1999**, 15, 2973-2984	4	90
244	Using Two-Stage Chemical Amplification To Determine the Density of Defects in Self-Assembled Monolayers of Alkanethiolates on Gold. *Langmuir*, **1996**, 12, 3257-3264	4	90
243	Digital logic for soft devices. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 7750-7759	11.5	89
242	Multivalency in Ligand Design. *Methods and Principles in Medicinal Chemistry*, **2006**, 11-53	0.4	86
241	Dynamic, self-assembled aggregates of magnetized, millimeter-sized objects rotating at the liquid-air interface: macroscopic, two-dimensional classical artificial atoms and molecules. *Physical Review E*, **2001**, 64, 011603	2.4	86
240	Sliding-strip microfluidic device enables ELISA on paper. *Biosensors and Bioelectronics*, **2018**, 99, 77-84	11.8	85
239	Broadly available imaging devices enable high-quality low-cost photometry. *Analytical Chemistry*, **2015**, 87, 9170-8	7.8	84
238	The Molecular Origin of Enthalpy/Entropy Compensation in Biomolecular Recognition. *Annual Review of Biophysics*, **2018**, 47, 223-250	21.1	82
237	Fabrication of palladium-based microelectronic devices by microcontact printing. *Applied Physics Letters*, **2002**, 80, 2222-2224	3.4	81

236	Odd-even effects in charge transport across n-alkanethiolate-based SAMs. *Journal of the American Chemical Society*, **2014**, 136, 16919-25	16.4	80
235	Self-Assembly of Hydrogen-Bonded Polymeric Rods Based on the Cyanuric Acid·Melamine Lattice. *Chemistry of Materials*, **1999**, 11, 684-690	9.6	79
234	Rectification in tunneling junctions: 2,2′-bipyridyl-terminated n-alkanethiolates. *Journal of the American Chemical Society*, **2014**, 136, 17155-62	16.4	78
233	Microbial and Enzymatic Biofuel Cells. *ACS Symposium Series*, **1994**, 271-290	0.4	77
232	Interactions between Hofmeister anions and the binding pocket of a protein. *Journal of the American Chemical Society*, **2015**, 137, 3859-66	16.4	76
231	An untethered jumping soft robot **2014**,		73
230	Polyvalent Interactions in Biological Systems: Implications for Design and Use of Multivalent Ligands and Inhibitors **1998**, 37, 2754		73
229	Fabrication of microfluidic systems in poly(dimethylsiloxane) **2000**, 21, 27		73
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