

Joanna Aizenberg

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168
papers

18,932
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137
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189
ext. papers

21,814
ext. citations

15.5
avg, IF

7
L-index

#	Paper	IF	Citations
168	Bioinspired self-repairing slippery surfaces with pressure-stable omniphobicity. <i>Nature</i> , 2011 , 477, 443-750.4	50.4	2401
167	Liquid-infused nanostructured surfaces with extreme anti-ice and anti-frost performance. <i>ACS Nano</i> , 2012 , 6, 6569-77	16.7	907
166	Skeleton of <i>Euplectella</i> sp.: structural hierarchy from the nanoscale to the macroscale. <i>Science</i> , 2005 , 309, 275-8	33.3	871
165	Control of crystal nucleation by patterned self-assembled monolayers. <i>Nature</i> , 1999 , 398, 495-498	50.4	741
164	Design of anti-icing surfaces: smooth, textured or slippery?. <i>Nature Reviews Materials</i> , 2016 , 1,	73.3	728
163	Liquid-infused structured surfaces with exceptional anti-biofouling performance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 13182-7	11.5	623
162	Calcitic microlenses as part of the photoreceptor system in brittlestars. <i>Nature</i> , 2001 , 412, 819-22	50.4	509
161	Reversible switching of hydrogel-actuated nanostructures into complex micropatterns. <i>Science</i> , 2007 , 315, 487-90	33.3	488
160	Condensation on slippery asymmetric bumps. <i>Nature</i> , 2016 , 531, 78-82	50.4	481
159	A bioinspired omniphobic surface coating on medical devices prevents thrombosis and biofouling. <i>Nature Biotechnology</i> , 2014 , 32, 1134-40	44.5	433
158	Oriented Growth of Calcite Controlled by Self-Assembled Monolayers of Functionalized Alkanethiols Supported on Gold and Silver. <i>Journal of the American Chemical Society</i> , 1999 , 121, 4500-4509	16.4	424
157	Adaptive fluid-infused porous films with tunable transparency and wettability. <i>Nature Materials</i> , 2013 , 12, 529-34	27	400
156	Assembly of large-area, highly ordered, crack-free inverse opal films. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 10354-9	11.5	390
155	Hierarchical or not? Effect of the length scale and hierarchy of the surface roughness on omniphobicity of lubricant-infused substrates. <i>Nano Letters</i> , 2013 , 13, 1793-9	11.5	351
154	Synthetic homeostatic materials with chemo-mechano-chemical self-regulation. <i>Nature</i> , 2012 , 487, 214-850.4	50.4	333
153	Self-organization of a mesoscale bristle into ordered, hierarchical helical assemblies. <i>Science</i> , 2009 , 323, 237-40	33.3	323
152	Extremely Stretchable and Fast Self-Healing Hydrogels. <i>Advanced Materials</i> , 2016 , 28, 4678-83	24	315

151	Liquid-based gating mechanism with tunable multiphase selectivity and antifouling behaviour. <i>Nature</i> , 2015 , 519, 70-3	50.4	310
150	Rationally designed complex, hierarchical microarchitectures. <i>Science</i> , 2013 , 340, 832-7	33.3	275
149	Extremely durable biofouling-resistant metallic surfaces based on electrodeposited nanoporous tungstite films on steel. <i>Nature Communications</i> , 2015 , 6, 8649	17.4	253
148	Preventing mussel adhesion using lubricant-infused materials. <i>Science</i> , 2017 , 357, 668-673	33.3	252
147	A colloidoscope of colloid-based porous materials and their uses. <i>Chemical Society Reviews</i> , 2016 , 45, 281-322	58.5	211
146	Encoding complex wettability patterns in chemically functionalized 3D photonic crystals. <i>Journal of the American Chemical Society</i> , 2011 , 133, 12430-2	16.4	209
145	Biological glass fibers: correlation between optical and structural properties. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 3358-63	11.5	196
144	Color from hierarchy: Diverse optical properties of micron-sized spherical colloidal assemblies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 10845-50	11.5	191
143	Dynamic polymer systems with self-regulated secretion for the control of surface properties and material healing. <i>Nature Materials</i> , 2015 , 14, 790-5	27	188
142	Bacterial flagella explore microscale hummocks and hollows to increase adhesion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 5624-9	11.5	188
141	Liquid-Infused Silicone As a Biofouling-Free Medical Material. <i>ACS Biomaterials Science and Engineering</i> , 2015 , 1, 43-51	5.5	185
140	Interplay between materials and microfluidics. <i>Nature Reviews Materials</i> , 2017 , 2,	73.3	179
139	Lubricant-Infused Nanoparticulate Coatings Assembled by Layer-by-Layer Deposition. <i>Advanced Functional Materials</i> , 2014 , 24, 6658-6667	15.6	173
138	Oleoplaning droplets on lubricated surfaces. <i>Nature Physics</i> , 2017 , 13, 1020-1025	16.2	170
137	Controlling local disorder in self-assembled monolayers by patterning the topography of their metallic supports. <i>Nature</i> , 1998 , 394, 868-871	50.4	170
136	Self-replenishing vascularized fouling-release surfaces. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 13299-307	9.5	157
135	Multifunctional ferrofluid-infused surfaces with reconfigurable multiscale topography. <i>Nature</i> , 2018 , 559, 77-82	50.4	146
134	Designing Liquid-Infused Surfaces for Medical Applications: A Review. <i>Advanced Materials</i> , 2018 , 30, e1802724	141	141

133	Micromechanical properties of biological silica in skeletons of deep-sea sponges. <i>Journal of Materials Research</i> , 2006 , 21, 2068-2078	2.5	139
132	Stability of Surface-Immobilized Lubricant Interfaces under Flow. <i>Chemistry of Materials</i> , 2015 , 27, 1792-1800	4.8	136
131	Bio-inspired design of submerged hydrogel-actuated polymer microstructures operating in response to pH. <i>Advanced Materials</i> , 2011 , 23, 1442-6	24	124
130	Fluorogel elastomers with tunable transparency, elasticity, shape-memory, and antifouling properties. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 4418-22	16.4	123
129	Interfacial materials with special wettability. <i>MRS Bulletin</i> , 2013 , 38, 366-371	3.2	118
128	3D Printable and Reconfigurable Liquid Crystal Elastomers with Light-Induced Shape Memory via Dynamic Bond Exchange. <i>Advanced Materials</i> , 2020 , 32, e1905682	24	107
127	Wetting in color: colorimetric differentiation of organic liquids with high selectivity. <i>ACS Nano</i> , 2012 , 6, 1427-37	16.7	106
126	Lubricant-infused micro/nano-structured surfaces with tunable dynamic omniphobicity at high temperatures. <i>Applied Physics Letters</i> , 2013 , 102, 231603	3.4	105
125	Rational Design of Mechano-Responsive Optical Materials by Fine Tuning the Evolution of Strain-Dependent Wrinkling Patterns. <i>Advanced Optical Materials</i> , 2013 , 1, 381-388	8.1	103
124	Effects of Laminate Architecture on Fracture Resistance of Sponge Biosilica: Lessons from Nature. <i>Advanced Functional Materials</i> , 2008 , 18, 1241-1248	15.6	99
123	An aptamer-functionalized chemomechanically modulated biomolecule catch-and-release system. <i>Nature Chemistry</i> , 2015 , 7, 447-54	17.6	98
122	Structural colour in colourimetric sensors and indicators. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 6075-6081	7.1	90
121	Spatial Control of Condensation and Freezing on Superhydrophobic Surfaces with Hydrophilic Patches. <i>Advanced Functional Materials</i> , 2013 , 23, 4577-4584	15.6	90
120	Calcium Carbonate Storage in Amorphous Form and Its Template-Induced Crystallization. <i>Chemistry of Materials</i> , 2008 , 20, 1064-1068	9.6	88
119	Fabrics coated with lubricated nanostructures display robust omniphobicity. <i>Nanotechnology</i> , 2014 , 25, 014019	3.4	83
118	Transparent antifouling material for improved operative field visibility in endoscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 11676-11681	11.5	83
117	Emerging Trends in Micro- and Nanoscale Technologies in Medicine: From Basic Discoveries to Translation. <i>ACS Nano</i> , 2017 , 11, 5195-5214	16.7	78
116	Bioinspired micrograting arrays mimicking the reverse color diffraction elements evolved by the butterfly <i>Pierella luna</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 15630-4	11.5	78

115	Controlled switching of the wetting behavior of biomimetic surfaces with hydrogel-supported nanostructures. <i>Journal of Materials Chemistry</i> , 2008 , 18, 3841		78
114	Adaptive all the way down: building responsive materials from hierarchies of chemomechanical feedback. <i>Chemical Society Reviews</i> , 2013 , 42, 7072-85	58.5	77
113	Stimuli-responsive chemomechanical actuation: a hybrid materials approach. <i>Accounts of Chemical Research</i> , 2014 , 47, 530-9	24.3	72
112	Photothermally triggered actuation of hybrid materials as a new platform for in vitro cell manipulation. <i>Nature Communications</i> , 2017 , 8, 14700	17.4	69
111	Enhancement of absorption and color contrast in ultra-thin highly absorbing optical coatings. <i>Applied Physics Letters</i> , 2013 , 103, 101104	3.4	69
110	An immobilized liquid interface prevents device associated bacterial infection in vivo. <i>Biomaterials</i> , 2017 , 113, 80-92	15.6	68
109	Tunable Anisotropy in Inverse Opals and Emerging Optical Properties. <i>Chemistry of Materials</i> , 2014 , 26, 1622-1628	9.6	67
108	Buckling-induced reversible symmetry breaking and amplification of chirality using supported cellular structures. <i>Advanced Materials</i> , 2013 , 25, 3380-5	24	64
107	Role of Flagella in Adhesion of Escherichia coli to Abiotic Surfaces. <i>Langmuir</i> , 2015 , 31, 6137-44	4	62
106	Multiresponsive polymeric microstructures with encoded predetermined and self-regulated deformability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 12950-12955	11.5	61
105	Origins of Extreme Liquid Repellency on Structured, Flat, and Lubricated Hydrophobic Surfaces. <i>Physical Review Letters</i> , 2018 , 120, 244503	7.4	60
104	Hydrogel-actuated integrated responsive systems (HAIRS): Moving towards adaptive materials. <i>Current Opinion in Solid State and Materials Science</i> , 2011 , 15, 236-245	12	60
103	A highly conspicuous mineralized composite photonic architecture in the translucent shell of the blue-rayed limpet. <i>Nature Communications</i> , 2015 , 6, 6322	17.4	59
102	Control of shape and size of nanopillar assembly by adhesion-mediated elastocapillary interaction. <i>ACS Nano</i> , 2010 , 4, 6323-31	16.7	57
101	Combining Bottom-Up Self-Assembly with Top-Down Microfabrication to Create Hierarchical Inverse Opals with High Structural Order. <i>Small</i> , 2015 , 11, 4334-40	11	56
100	Controlled growth and form of precipitating microsculptures. <i>Science</i> , 2017 , 355, 1395-1399	33.3	55
99	Probing Atomic Distributions in Mono- and Bimetallic Nanoparticles by Supervised Machine Learning. <i>Nano Letters</i> , 2019 , 19, 520-529	11.5	54
98	Multifunctionality of chiton biomineralized armor with an integrated visual system. <i>Science</i> , 2015 , 350, 952-6	33.3	51

97	Patterning hierarchy in direct and inverse opal crystals. <i>Small</i> , 2012 , 8, 1904-11	11	50
96	Tailoring re-entrant geometry in inverse colloidal monolayers to control surface wettability. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 6853-6859	13	49
95	Maskless photolithography: Embossed photoresist as its own optical element. <i>Applied Physics Letters</i> , 1998 , 73, 2893-2895	3-4	49
94	Film Dynamics and Lubricant Depletion by Droplets Moving on Lubricated Surfaces. <i>Physical Review X</i> , 2018 , 8,	9-1	48
93	Mechanically robust lattices inspired by deep-sea glass sponges. <i>Nature Materials</i> , 2021 , 20, 237-241	27	46
92	Three-Phase Co-assembly: In Situ Incorporation of Nanoparticles into Tunable, Highly Ordered, Porous Silica Films. <i>ACS Photonics</i> , 2014 , 1, 53-60	6-3	41
91	Micropatterned Hydrogel Surface with High-Aspect-Ratio Features for Cell Guidance and Tissue Growth. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 21939-45	9-5	41
90	Dynamic air/liquid pockets for guiding microscale flow. <i>Nature Communications</i> , 2018 , 9, 733	17-4	40
89	Calcite shape modulation through the lattice mismatch between the self-assembled monolayer template and the nucleated crystal face. <i>CrystEngComm</i> , 2007 , 9, 1219	3-3	40
88	Achieving High Selectivity for Alkyne Hydrogenation at High Conversions with Compositionally Optimized PdAu Nanoparticle Catalysts in Raspberry Colloid-Templated SiO ₂ . <i>ACS Catalysis</i> , 2020 , 10, 441-450	13-1	36
87	Dilute Pd/Au Alloy Nanoparticles Embedded in Colloid-Templated Porous SiO ₂ : Stable Au-Based Oxidation Catalysts. <i>Chemistry of Materials</i> , 2019 , 31, 5759-5768	9-6	34
86	Bacterial Interactions with Immobilized Liquid Layers. <i>Advanced Healthcare Materials</i> , 2017 , 6, 1600948	10-1	33
85	A Biologically Inspired, Functionally Graded End Effector for Soft Robotics Applications. <i>Soft Robotics</i> , 2017 , 4, 317-323	9-2	33
84	New functional insights into the internal architecture of the laminated anchor spicules of <i>Euplectella aspergillum</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 4976-81	11-5	33
83	Depletion of Lubricant from Nanostructured Oil-Infused Surfaces by Pendant Condensate Droplets. <i>ACS Nano</i> , 2020 , 14, 8024-8035	16-7	33
82	Dynamically Actuated Liquid-Infused Poroelastic Film with Precise Control over Droplet Dynamics. <i>Advanced Functional Materials</i> , 2018 , 28, 1802632	15-6	33
81	The Optical Janus Effect: Asymmetric Structural Color Reflection Materials. <i>Advanced Materials</i> , 2017 , 29, 1606876	24	32
80	Combinatorial wetting in colour: an optofluidic nose. <i>Lab on A Chip</i> , 2012 , 12, 3666-9	7-2	31

79	Microbristle in gels: Toward all-polymer reconfigurable hybrid surfaces. <i>Soft Matter</i> , 2010 , 6, 750	3.6	31
78	Low-temperature synthesis of nanoscale silica multilayers by atomic layer deposition in a test tube. <i>Journal of Materials Chemistry</i> , 2010 , 20, 6009		30
77	Dropwise condensation on hydrophobic bumps and dimples. <i>Applied Physics Letters</i> , 2018 , 112, 151605	3.4	29
76	Characterization of a Mechanically Tunable Gyroid Photonic Crystal Inspired by the Butterfly <i>Parides Sesostris</i> . <i>Advanced Optical Materials</i> , 2016 , 4, 99-105	8.1	29
75	Bioinspired Universal Flexible Elastomer-Based Microchannels. <i>Small</i> , 2018 , 14, e1702170	11	28
74	Unifying Design Strategies in Demosponge and Hexactinellid Skeletal Systems 2010 , 86, 72-95		28
73	Nanocrystalline Precursors for the Co-Assembly of Crack-Free Metal Oxide Inverse Opals. <i>Advanced Materials</i> , 2018 , 30, e1706329	24	26
72	Controlling the stability and reversibility of micropillar assembly by surface chemistry. <i>Journal of the American Chemical Society</i> , 2011 , 133, 5545-53	16.4	26
71	An artificial vasculature for adaptive thermal control of windows. <i>Solar Energy Materials and Solar Cells</i> , 2013 , 117, 429-436	6.4	24
70	Hierarchical structural control of visual properties in self-assembled photonic-plasmonic pigments. <i>Optics Express</i> , 2014 , 22, 27750-68	3.3	24
69	Infused polymers for cell sheet release. <i>Scientific Reports</i> , 2016 , 6, 26109	4.9	23
68	Dynamics of evaporative colloidal patterning. <i>Physics of Fluids</i> , 2015 , 27, 092105	4.4	22
67	Liquid-induced topological transformations of cellular microstructures. <i>Nature</i> , 2021 , 592, 386-391	50.4	21
66	Modular Design of Advanced Catalytic Materials Using Hybrid Organic-Inorganic Raspberry Particles. <i>Advanced Functional Materials</i> , 2018 , 28, 1704559	15.6	21
65	Structurally assisted super black in colourful peacock spiders. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019 , 286, 20190589	4.4	20
64	Tunability of liquid-infused silicone materials for biointerfaces. <i>Biointerphases</i> , 2018 , 13, 06D401	1.8	20
63	The elemental composition of demospongiae from the Red Sea, Gulf of Aqaba. <i>PLoS ONE</i> , 2014 , 9, e957757	3.7	20
62	Enhancing catalytic performance of dilute metal alloy nanomaterials. <i>Communications Chemistry</i> , 2020 , 3,	6.3	20

61	New Architectures for Designed Catalysts: Selective Oxidation using AgAu Nanoparticles on Colloid-Templated Silica. <i>Chemistry - A European Journal</i> , 2018 , 24, 1833-1837	4.8	18
60	Photo-tuning of highly selective wetting in inverse opals. <i>Soft Matter</i> , 2014 , 10, 1325-8	3.6	18
59	Viewpoint: Homeostasis as Inspiration-Toward Interactive Materials. <i>Advanced Materials</i> , 2020 , 32, e190554	5.5	18
58	Non-equilibrium signal integration in hydrogels. <i>Nature Communications</i> , 2020 , 11, 386	17.4	17
57	Metallic Liquid Gating Membranes. <i>ACS Nano</i> , 2020 , 14, 2465-2474	16.7	17
56	Chemo-Mechanically Regulated Oscillation of an Enzymatic Reaction. <i>Chemistry of Materials</i> , 2013 , 25, 521-523	9.6	17
55	Designing angle-independent structural colors using Monte Carlo simulations of multiple scattering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	17
54	Neural network assisted analysis of bimetallic nanocatalysts using X-ray absorption near edge structure spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 18902-18910	3.6	16
53	Colorimetric Ethanol Indicator Based on Instantaneous, Localized Wetting of a Photonic Crystal. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 1924-1929	9.5	14
52	Twist again: Dynamically and reversibly controllable chirality in liquid crystalline elastomer microposts. <i>Science Advances</i> , 2020 , 6, eaay5349	14.3	12
51	Delamination of a thin sheet from a soft adhesive Winkler substrate. <i>Physical Review E</i> , 2018 , 97, 062803	3.4	11
50	Effect of Surface Chemistry on Incorporation of Nanoparticles within Calcite Single Crystals. <i>Crystal Growth and Design</i> , 2019 , 19, 4429-4435	3.5	11
49	Multifunctional actuation systems responding to chemical gradients. <i>Soft Matter</i> , 2012 , 8, 8289	3.6	11
48	Growth of polygonal rings and wires of CuS on structured surfaces. <i>CrystEngComm</i> , 2011 , 13, 1077-1080	3.3	11
47	Direct Writing and Actuation of Three-Dimensionally Patterned Hydrogel Pads on Micropillar Supports. <i>Angewandte Chemie</i> , 2011 , 123, 9528-9532	3.6	11
46	Wide-Angle Spectrally Selective Absorbers and Thermal Emitters Based on Inverse Opals. <i>ACS Photonics</i> , 2019 , 6, 2607-2611	6.3	10
45	Two-parameter sequential adsorption model applied to microfiber clustering. <i>Soft Matter</i> , 2010 , 6, 2421	3.6	10
44	Fabrication of Photonic Microbricks via Crack Engineering of Colloidal Crystals. <i>Advanced Functional Materials</i> , 2020 , 30, 1908242	15.6	10

43	Entropic Control of HD Exchange Rates over Dilute Pd-in-Au Alloy Nanoparticle Catalysts. <i>ACS Catalysis</i> , 2021 , 11, 6971-6981	13.1	10
42	Designing a gel-fiber composite to extract nanoparticles from solution. <i>Soft Matter</i> , 2015 , 11, 8692-700	3.6	9
41	Decoding reactive structures in dilute alloy catalysts.. <i>Nature Communications</i> , 2022 , 13, 832	17.4	9
40	Harnessing structural instability and material instability in the hydrogel-actuated integrated responsive structures (HAIRS). <i>Extreme Mechanics Letters</i> , 2017 , 13, 84-90	3.9	8
39	Tuning and Freezing Disorder in Photonic Crystals using Percolation Lithography. <i>Scientific Reports</i> , 2016 , 6, 19542	4.9	8
38	Fluorogel Elastomers with Tunable Transparency, Elasticity, Shape-Memory, and Antifouling Properties. <i>Angewandte Chemie</i> , 2014 , 126, 4507-4511	3.6	8
37	Why Are Water Droplets Highly Mobile on Nanostructured Oil-Impregnated Surfaces?. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 15901-15909	9.5	8
36	Bioinspired Soft Microactuators. <i>Advanced Materials</i> , 2021 , 33, e2008558	24	8
35	Raspberry colloid-templated approach for the synthesis of palladium-based oxidation catalysts with enhanced hydrothermal stability and low-temperature activity. <i>Catalysis Today</i> , 2021 , 360, 241-251	5.3	8
34	Self-regulated non-reciprocal motions in single-material microstructures.. <i>Nature</i> , 2022 , 605, 76-83	50.4	8
33	Computational modeling of oscillating fins that "catch and release" targeted nanoparticles in bilayer flows. <i>Soft Matter</i> , 2016 , 12, 1374-84	3.6	7
32	Self-Stratifying Porous Silicones with Enhanced Liquid Infusion and Protective Skin Layer for Biofouling Prevention. <i>Advanced Materials Interfaces</i> , 2021 , 8, 2000359	4.6	7
31	Opto-chemo-mechanical transduction in photoresponsive gels elicits switchable self-trapped beams with remote interactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 3953-3959	11.5	6
30	New Role of Pd Hydride as a Sensor of Surface Pd Distributions in Pd/Au Catalysts. <i>ChemCatChem</i> , 2020 , 12, 717-721	5.2	6
29	Tunable infrared transmission for energy-efficient pneumatic building façades. <i>Energy and Buildings</i> , 2020 , 226, 110377	7	6
28	The dynamic behavior of dilute metallic alloy Pd _x Au _{1-x} /SiO ₂ raspberry colloid templated catalysts under CO oxidation. <i>Catalysis Science and Technology</i> , 2021 , 11, 4072-4082	5.5	6
27	Spiropyran Photoisomerization Dynamics in Multiresponsive Hydrogels.. <i>Journal of the American Chemical Society</i> , 2021 ,	16.4	6
26	Inverting the Swelling Trends in Modular Self-Oscillating Gels Crosslinked by Redox-Active Metal Bipyridine Complexes. <i>Advanced Functional Materials</i> , 2018 , 28, 1704205	15.6	5

25	Harnessing Cooperative Interactions between Thermo-responsive Aptamers and Gels To Trap and Release Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 30475-30483	9.5	5
24	Dilute Pd-in-Au alloy RCT-SiO ₂ catalysts for enhanced oxidative methanol coupling. <i>Journal of Catalysis</i> , 2021 ,	7.3	5
23	Microstructural design for mechanical-optical multifunctionality in the exoskeleton of the flower beetle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	5
22	Microscopic origins of the crystallographically preferred growth in evaporation-induced colloidal crystals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	5
21	Biomimetic Nanostructured Surfaces with Designer Mechanics and Geometry for Broad Applications. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1236, 1		4
20	Silica/TiO ₂ hybrids for structurally robust inverse opals with controllable refractive index. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 109-116	7.1	4
19	Patterning non-equilibrium morphologies in stimuli-responsive gels through topographical confinement. <i>Soft Matter</i> , 2020 , 16, 1463-1472	3.6	4
18	Controlling Liquid Crystal Orientations for Programmable Anisotropic Transformations in Cellular Microstructures. <i>Advanced Materials</i> , 2021 , 33, e2105024	24	4
17	Beyond biotemplating: multiscale porous inorganic materials with high catalytic efficiency. <i>Chemical Communications</i> , 2020 , 56, 3389-3392	5.8	3
16	Patterned crystal growth and heat wave generation in hydrogels.. <i>Nature Communications</i> , 2022 , 13, 259	17.4	3
15	Enhanced condensation heat transfer using porous silica inverse opal coatings on copper tubes. <i>Scientific Reports</i> , 2021 , 11, 10675	4.9	3
14	On the Origin of Sinter-Resistance and Catalyst Accessibility in Raspberry-Colloid-Templated Catalyst Design. <i>Advanced Functional Materials</i> , 2106876	15.6	3
13	Tunable Long-Range Interactions between Self-Trapped Beams driven by the Thermal Response of Photoresponsive Hydrogels. <i>Chemistry of Materials</i> , 2020 , 32, 10594-10600	9.6	2
12	Homeostasis: Viewpoint: Homeostasis as Inspiration Toward Interactive Materials (Adv. Mater. 20/2020). <i>Advanced Materials</i> , 2020 , 32, 2070159	24	2
11	Dynamic Self-Repairing Hybrid Liquid-in-Solid Protective Barrier for Cementitious Materials. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 31922-31932	9.5	2
10	Stable Liquid Jets Bouncing off Soft Gels. <i>Physical Review Letters</i> , 2018 , 120, 028006	7.4	2
9	Inverse Opal Films for Medical Sensing: Application in Diagnosis of Neonatal Jaundice. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2001326	10.1	2
8	Finite-difference Time-domain (FDTD) Optical Simulations: A Primer for the Life Sciences and Bio-Inspired Engineering. <i>Micron</i> , 2021 , 151, 103160	2.3	2

7	Opal Crystals: Patterning Hierarchy in Direct and Inverse Opal Crystals (Small 12/2012). <i>Small</i> , 2012 , 8, 1798-1798	11	1
6	Quantifying oxygen induced surface enrichment of a dilute PdAu alloy catalyst. <i>Catalysis Science and Technology</i> ,	5.5	0
5	Controllable growth of interpenetrating or random copolymer networks. <i>Soft Matter</i> , 2021 , 17, 7177-7187	9.7	0
4	Photonic Microbricks: Fabrication of Photonic Microbricks via Crack Engineering of Colloidal Crystals (Adv. Funct. Mater. 26/2020). <i>Advanced Functional Materials</i> , 2020 , 30, 2070172	15.6	
3	New Architectures for Designed Catalysts: Selective Oxidation using AgAu Nanoparticles on Colloid-Templated Silica. <i>Chemistry - A European Journal</i> , 2018 , 24, 1743-1743	4.8	
2	Mapping blood biochemistry by Raman spectroscopy at the cellular level.. <i>Chemical Science</i> , 2021 , 13, 133-140	9.4	
1	Droplet Dynamics: Dynamically Actuated Liquid-Infused Poroelastic Film with Precise Control over Droplet Dynamics (Adv. Funct. Mater. 39/2018). <i>Advanced Functional Materials</i> , 2018 , 28, 1870277	15.6	