

Paul Braun

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213
papers

13,714
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114
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229
ext. papers

15,357
ext. citations

11.7
avg, IF

6.66
L-index

#	Paper	IF	Citations
213	Force-induced activation of covalent bonds in mechanoresponsive polymeric materials. <i>Nature</i> , 2009 , 459, 68-72	50.4	1211
212	Nanoscale thermal transport. II. 2003-2012. <i>Applied Physics Reviews</i> , 2014 , 1, 011305	17.3	1050
211	Three-dimensional bicontinuous ultrafast-charge and -discharge bulk battery electrodes. <i>Nature Nanotechnology</i> , 2011 , 6, 277-81	28.7	940
210	Bioresorbable silicon electronic sensors for the brain. <i>Nature</i> , 2016 , 530, 71-6	50.4	582
209	Self-Healing Polymer Coatings. <i>Advanced Materials</i> , 2009 , 21, 645-649	24	575
208	Semiconducting superlattices templated by molecular assemblies. <i>Nature</i> , 1996 , 380, 325-328	50.4	472
207	High-power lithium ion microbatteries from interdigitated three-dimensional bicontinuous nanoporous electrodes. <i>Nature Communications</i> , 2013 , 4, 1732	17.4	449
206	Electrochemically grown photonic crystals. <i>Nature</i> , 1999 , 402, 603-604	50.4	387
205	Fabricating complex three-dimensional nanostructures with high-resolution conformable phase masks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 12428-33	11.5	247
204	Embedded cavities and waveguides in three-dimensional silicon photonic crystals. <i>Nature Photonics</i> , 2008 , 2, 52-56	33.9	234
203	Three-dimensional metal scaffold supported bicontinuous silicon battery anodes. <i>Nano Letters</i> , 2012 , 12, 2778-83	11.5	229
202	Thermal conductivity of nanoparticle suspensions. <i>Journal of Applied Physics</i> , 2006 , 99, 084308	2.5	217
201	Force-induced redistribution of a chemical equilibrium. <i>Journal of the American Chemical Society</i> , 2010 , 132, 16107-11	16.4	213
200	Glucose-Sensitive Inverse Opal Hydrogels: Analysis of Optical Diffraction Response. <i>Langmuir</i> , 2004 , 20, 3096-3106	4	213
199	Cavity-enhanced localized plasmon resonance sensing. <i>Applied Physics Letters</i> , 2010 , 97, 253116	3.4	208
198	Three-dimensional self-assembled photonic crystals with high temperature stability for thermal emission modification. <i>Nature Communications</i> , 2013 , 4, 2630	17.4	166
197	Hydrothermal Synthesis of Er-Doped Luminescent TiO ₂ Nanoparticles. <i>Chemistry of Materials</i> , 2003 , 15, 1256-1263	9.6	157

196	Multidimensional architectures for functional optical devices. <i>Advanced Materials</i> , 2010 , 22, 1084-101	24	154
195	Conductivity and lithiophilicity gradients guide lithium deposition to mitigate short circuits. <i>Nature Communications</i> , 2019 , 10, 1896	17.4	150
194	Hydrogel-Based Glucose Sensors: Effects of Phenylboronic Acid Chemical Structure on Response. <i>Chemistry of Materials</i> , 2013 , 25, 3239-3250	9.6	146
193	Holographic patterning of high-performance on-chip 3D lithium-ion microbatteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 6573-8	11.5	144
192	Large-area MRI-compatible epidermal electronic interfaces for prosthetic control and cognitive monitoring. <i>Nature Biomedical Engineering</i> , 2019 , 3, 194-205	19	144
191	Selective wetting-induced micro-electrode patterning for flexible micro-supercapacitors. <i>Advanced Materials</i> , 2014 , 26, 5108-12	24	127
190	AuPd Metal Nanoparticles as Probes of Nanoscale Thermal Transport in Aqueous Solution. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 18870-18875	3.4	121
189	Protein adsorption on poly(N-isopropylacrylamide) brushes: dependence on grafting density and chain collapse. <i>Langmuir</i> , 2011 , 27, 8810-8	4	120
188	Exploiting Force Sensitive Spiropyranes as Molecular Level Probes. <i>Macromolecules</i> , 2013 , 46, 3746-3752	5.5	109
187	Interlayer Lithium Plating in Au Nanoparticles Pillared Reduced Graphene Oxide for Lithium Metal Anodes. <i>Advanced Functional Materials</i> , 2018 , 28, 1804133	15.6	105
186	Three-dimensional mesostructures as high-temperature growth templates, electronic cellular scaffolds, and self-propelled microrobots. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E9455-E9464	11.5	104
185	Mechanically and chemically robust sandwich-structured C@Si@C nanotube array Li-ion battery anodes. <i>ACS Nano</i> , 2015 , 9, 1985-94	16.7	103
184	Epitaxial growth of three-dimensionally architected optoelectronic devices. <i>Nature Materials</i> , 2011 , 10, 676-81	27	99
183	Nanoparticle-mediated epitaxial assembly of colloidal crystals on patterned substrates. <i>Langmuir</i> , 2004 , 20, 5262-70	4	94
182	Epitaxial Growth of High Dielectric Contrast Three-Dimensional Photonic Crystals. <i>Advanced Materials</i> , 2001 , 13, 721-724	24	93
181	Electrochemically tunable thermal conductivity of lithium cobalt oxide. <i>Nature Communications</i> , 2014 , 5, 4035	17.4	92
180	Extremely Durable, Flexible Supercapacitors with Greatly Improved Performance at High Temperatures. <i>ACS Nano</i> , 2015 , 9, 8569-77	16.7	87
179	Fabrication of Three-Dimensional Photonic Crystals Using Multibeam Interference Lithography and Electrodeposition. <i>Advanced Materials</i> , 2009 , 21, 3012-3015	24	87

178	Microcapsules containing suspensions of carbon nanotubes. <i>Journal of Materials Chemistry</i> , 2009 , 19, 6093		87
177	High energy flexible supercapacitors formed via bottom-up infilling of gel electrolytes into thick porous electrodes. <i>Nature Communications</i> , 2018 , 9, 2578	17.4	85
176	Optical diffraction and high-energy features in three-dimensional photonic crystals. <i>Physical Review B</i> , 2005 , 71,	3.3	82
175	Synergistically Enhanced Electrochemical Performance of Hierarchical MoS ₂ /TiNbO ₅ Hetero-nanostructures as Anode Materials for Li-Ion Batteries. <i>ACS Nano</i> , 2017 , 11, 1026-1033	16.7	80
174	3D Scaffolded Nickel-Tin Li-Ion Anodes with Enhanced Cyclability. <i>Advanced Materials</i> , 2016 , 28, 742-7	24	80
173	Interfacial thermal conductance in spun-cast polymer films and polymer brushes. <i>Applied Physics Letters</i> , 2010 , 97, 011908	3.4	79
172	Solvent Swelling Activation of a Mechanophore in a Polymer Network. <i>Macromolecules</i> , 2014 , 47, 2690-2694	25.4	78
171	Electrochemical Fabrication of 3D Microperiodic Porous Materials. <i>Advanced Materials</i> , 2001 , 13, 482-485	4	77
170	Unveiling surface redox charge storage of interacting two-dimensional heteronanoshets in hierarchical architectures. <i>Nano Letters</i> , 2015 , 15, 2269-77	11.5	73
169	Electrodeposited 3D Tungsten Photonic Crystals with Enhanced Thermal Stability. <i>Chemistry of Materials</i> , 2011 , 23, 4783-4788	9.6	73
168	Carboxyl functionalization of ultrasmall luminescent silicon nanoparticles through thermal hydrosilylation. <i>Journal of Materials Chemistry</i> , 2006 , 16, 1421		71
167	Functionalized Hydrogel on Plasmonic Nanoantennas for Noninvasive Glucose Sensing. <i>ACS Photonics</i> , 2015 , 2, 475-480	6.3	70
166	Graphene Sandwiched Mesostructured Li-Ion Battery Electrodes. <i>Advanced Materials</i> , 2016 , 28, 7696-7024	24	68
165	Lyotropic Liquid Crystals as Nanoreactors for Nanoparticle Synthesis. <i>Chemistry of Materials</i> , 2004 , 16, 2201-2207	9.6	68
164	Protein Adsorption Modes Determine Reversible Cell Attachment on Poly(N-isopropyl acrylamide) Brushes. <i>Advanced Functional Materials</i> , 2012 , 22, 2394-2401	15.6	66
163	Quasi-ballistic Electronic Thermal Conduction in Metal Inverse Opals. <i>Nano Letters</i> , 2016 , 16, 2754-61	11.5	65
162	Transparent Self-Healing Polymers Based on Encapsulated Plasticizers in a Thermoplastic Matrix. <i>Advanced Functional Materials</i> , 2011 , 21, 4705-4711	15.6	64
161	Polymer-Based and Polymer-Filled Nanocomposites 2003 , 77-153		62

160	High and low thermal conductivity of amorphous macromolecules. <i>Physical Review B</i> , 2017 , 95,	3.3	61
159	Three-Dimensionally Mesostructured Fe ₂ O ₃ Electrodes with Good Rate Performance and Reduced Voltage Hysteresis. <i>Chemistry of Materials</i> , 2015 , 27, 2803-2811	9.6	60
158	Improved synthesis of TiCT MXenes resulting in exceptional electrical conductivity, high synthesis yield, and enhanced capacitance. <i>Nanoscale</i> , 2021 , 13, 3572-3580	7.7	59
157	High Volumetric Capacity Three-Dimensionally Sphere-Caged Secondary Battery Anodes. <i>Nano Letters</i> , 2016 , 16, 4501-7	11.5	58
156	Interrelationship between Densification, Crystallization, and Chemical Evolution in Sol-Gel Titania Thin Films. <i>Journal of the American Ceramic Society</i> , 1994 , 77, 1592-1596	3.8	57
155	Light-triggered thermal conductivity switching in azobenzene polymers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 5973-5978	11.5	56
154	High-Performance Mesostructured Organic Hybrid Pseudocapacitor Electrodes. <i>Advanced Functional Materials</i> , 2016 , 26, 903-910	15.6	52
153	Thermally Functional Liquid Crystal Networks by Magnetic Field Driven Molecular Orientation. <i>ACS Macro Letters</i> , 2016 , 5, 955-960	6.6	47
152	Materials Chemistry in 3D Templates for Functional Photonics. <i>Chemistry of Materials</i> , 2014 , 26, 277-286	9.6	46
151	Hydrothermal fabrication of three-dimensional secondary battery anodes. <i>Advanced Materials</i> , 2014 , 26, 7096-101	24	46
150	Electroplating lithium transition metal oxides. <i>Science Advances</i> , 2017 , 3, e1602427	14.3	45
149	Three dimensional silicon photonic crystals fabricated by two photon phase mask lithography. <i>Applied Physics Letters</i> , 2009 , 94, 011101	3.4	44
148	Thin Film Condensation on Nanostructured Surfaces. <i>Advanced Functional Materials</i> , 2018 , 28, 1707000	15.6	42
147	Reduced Graphene Oxide/LiI Composite Lithium Ion Battery Cathodes. <i>Nano Letters</i> , 2017 , 17, 6893-6899	11.5	41
146	Self-Folded Gripper-Like Architectures from Stimuli-Responsive Bilayers. <i>Advanced Materials</i> , 2018 , 30, e1801669	24	41
145	Triangular Elastomeric Stamps for Optical Applications: Near-Field Phase Shift Photolithography, 3D Proximity Field Patterning, Embossed Antireflective Coatings, and SERS Sensing. <i>Advanced Functional Materials</i> , 2012 , 22, 2927-2938	15.6	41
144	Counterion Effects in Liquid Crystal Templating of Nanostructured CdS. <i>Chemistry of Materials</i> , 1997 , 9, 1495-1498	9.6	41
143	Three-Dimensional Single Gyroid Photonic Crystals with a Mid-Infrared Bandgap. <i>ACS Photonics</i> , 2016 , 3, 1131-1137	6.3	40

142	Effects of surface termination on the band gap of ultrabright Si ₂₉ nanoparticles: Experiments and computational models. <i>Physical Review B</i> , 2002 , 65,	3.3	39
141	Improved Performance in FeF ₂ Conversion Cathodes through Use of a Conductive 3D Scaffold and Al ₂ O ₃ ALD Coating. <i>Advanced Functional Materials</i> , 2017 , 27, 1702783	15.6	38
140	Molecular Variables in the Self-Assembly of Supramolecular Nanostructures. <i>Macromolecules</i> , 2000 , 33, 3550-3556	5.5	36
139	Revealing the role of the cathode-electrolyte interface on solid-state batteries. <i>Nature Materials</i> , 2021 , 20, 1392-1400	27	36
138	Flexible Transient Optical Waveguides and Surface-Wave Biosensors Constructed from Monocrystalline Silicon. <i>Advanced Materials</i> , 2018 , 30, e1801584	24	36
137	Programming structure into 3D nanomaterials. <i>Materials Today</i> , 2009 , 12, 28-35	21.8	35
136	Soft, skin-interfaced microfluidic systems with integrated immunoassays, fluorometric sensors, and impedance measurement capabilities. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 27906-27915	11.5	35
135	High Volumetric and Gravimetric Capacity Electrodeposited Mesoporous Sb O Sodium Ion Battery Anodes. <i>Small</i> , 2019 , 15, e1900258	11	34
134	Heat capacity measurements of two-dimensional self-assembled hexadecanethiol monolayers on polycrystalline gold. <i>Applied Physics Letters</i> , 2004 , 84, 5198-5200	3.4	34
133	Soft, skin-interfaced microfluidic systems with integrated enzymatic assays for measuring the concentration of ammonia and ethanol in sweat. <i>Lab on A Chip</i> , 2020 , 20, 84-92	7.2	34
132	Coherent phonon-grain boundary scattering in silicon inverse opals. <i>Nano Letters</i> , 2013 , 13, 618-24	11.5	33
131	Electrode architectures for high capacity multivalent conversion compounds: iron (II and III) fluoride. <i>RSC Advances</i> , 2014 , 4, 6730	3.7	32
130	Rational Design of Hierarchically Open-Porous Spherical Hybrid Architectures for Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2019 , 9, 1802816	21.8	32
129	Self-assembly of monodisperse starburst carbon spheres into hierarchically organized nanostructured supercapacitor electrodes. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 9128-33	9.5	30
128	Transfer-Printing of Tunable Porous Silicon Microcavities with Embedded Emitters. <i>ACS Photonics</i> , 2014 , 1, 1144-1150	6.3	30
127	Linear and nonlinear rheology and structural relaxation in dense glassy and jammed soft repulsive pNIPAM microgel suspensions. <i>Soft Matter</i> , 2019 , 15, 1038-1052	3.6	29
126	Holographically fabricated photonic crystals with large reflectance. <i>Applied Physics Letters</i> , 2007 , 91, 241103	3.4	29
125	High-Operating-Temperature Direct Ink Writing of Mesoscale Eutectic Architectures. <i>Advanced Materials</i> , 2017 , 29, 1604778	24	28

124	High strength metallic wood from nanostructured nickel inverse opal materials. <i>Scientific Reports</i> , 2019 , 9, 719	4.9	28
123	Tunable Visibly Transparent Optics Derived from Porous Silicon. <i>ACS Photonics</i> , 2017 , 4, 909-914	6.3	27
122	In Operando Strain Measurement of Bicontinuous Silicon-Coated Nickel Inverse Opal Anodes for Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2015 , 5, 1500466	21.8	27
121	Direct laser writing of volumetric gradient index lenses and waveguides. <i>Light: Science and Applications</i> , 2020 , 9, 196	16.7	27
120	Effects of Particle Size on Mg Ion Intercalation into EMnO Cathode Materials. <i>Nano Letters</i> , 2019 , 19, 4712-4720	11.5	26
119	Autonomic molecular transport by polymer films containing programmed chemical potential gradients. <i>Journal of the American Chemical Society</i> , 2015 , 137, 5066-73	16.4	26
118	Template-Directed Directionally Solidified 3D Mesostructured AgCl-KCl Eutectic Photonic Crystals. <i>Advanced Materials</i> , 2015 , 27, 4551-9	24	26
117	Flexible and Wearable Fiber Microsupercapacitors Based on Carbon Nanotube-Agarose Gel Composite Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 19925-19933	9.5	25
116	Tin Sulfide-Based Nanohybrid for High-Performance Anode of Sodium-Ion Batteries. <i>Small</i> , 2017 , 13, 1700767	11	25
115	Acid-Triggered, Acid-Generating, and Self-Amplifying Degradable Polymers. <i>Journal of the American Chemical Society</i> , 2019 , 141, 2838-2842	16.4	25
114	Millimeter-scale liquid metal droplet thermal switch. <i>Applied Physics Letters</i> , 2018 , 112, 063505	3.4	25
113	Modulating Noncovalent Cross-links with Molecular Switches. <i>Journal of the American Chemical Society</i> , 2019 , 141, 3597-3604	16.4	24
112	Enhanced Electrical and Mechanical Properties of Chemically Cross-Linked Carbon-Nanotube-Based Fibers and Their Application in High-Performance Supercapacitors. <i>ACS Nano</i> , 2020 , 14, 632-639	16.7	24
111	Thermal Conductivity of Graphite Thin Films Grown by Low Temperature Chemical Vapor Deposition on Ni (111). <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600234	4.6	24
110	Enhanced cycle stability of iron(II, III) oxide nanoparticles encapsulated with nitrogen-doped carbon and graphene frameworks for lithium battery anodes. <i>Carbon</i> , 2018 , 129, 621-630	10.4	22
109	Porous Silicon Gradient Refractive Index Micro-Optics. <i>Nano Letters</i> , 2016 , 16, 7402-7407	11.5	21
108	Integration of high capacity materials into interdigitated mesostructured electrodes for high energy and high power density primary microbatteries. <i>Journal of Power Sources</i> , 2016 , 315, 308-315	8.9	21
107	Resonant Mode Engineering of Photonic Crystal Sensors Clad with Ultralow Refractive Index Porous Silicon Dioxide. <i>Advanced Optical Materials</i> , 2017 , 5, 1700605	8.1	21

106	Colloidal Particles that Rapidly Change Shape via Elastic Instabilities. <i>Small</i> , 2015 , 11, 6051-7	11	21
105	Transfer of Preformed Three-Dimensional Photonic Crystals onto Dye-Sensitized Solar Cells. <i>Angewandte Chemie</i> , 2011 , 123, 5830-5833	3.6	21
104	Programmable shape transformation of elastic spherical domes. <i>Soft Matter</i> , 2016 , 12, 6184-95	3.6	21
103	Cationically Substituted BiFeOCl Nanosheets as Li Ion Battery Anodes. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 14187-14196	9.5	20
102	Hole-mask colloidal nanolithography combined with tilted-angle-rotation evaporation: A versatile method for fabrication of low-cost and large-area complex plasmonic nanostructures and metamaterials. <i>Beilstein Journal of Nanotechnology</i> , 2014 , 5, 577-86	3	20
101	Heteroepitaxial Growth of GaN on Unconventional Templates and Layer-Transfer Techniques for Large-Area, Flexible/Stretchable Light-Emitting Diodes. <i>Advanced Optical Materials</i> , 2016 , 4, 505-521	8.1	20
100	High-Performance Packaged 3D Lithium-Ion Microbatteries Fabricated Using Imprint Lithography. <i>Advanced Materials</i> , 2021 , 33, e2006229	24	20
99	Complex three-dimensional conformal surfaces formed by atomic layer deposition: computation and experimental verification. <i>Journal of Materials Chemistry</i> , 2009 , 19, 9126		18
98	Are artificial opals non-close-packed fcc structures?. <i>Applied Physics Letters</i> , 2007 , 90, 241905	3.4	17
97	Kirigami-Inspired Self-Assembly of 3D Structures. <i>Advanced Functional Materials</i> , 2020 , 30, 1909888	15.6	16
96	Soft Three-Dimensional Microscale Vibratory Platforms for Characterization of Nano-Thin Polymer Films. <i>ACS Nano</i> , 2019 , 13, 449-457	16.7	16
95	Reversible Conversion Reactions and Small First Cycle Irreversible Capacity Loss in Metal Sulfide-Based Electrodes Enabled by Solid Electrolytes. <i>Advanced Functional Materials</i> , 2019 , 29, 1901719	15.6	15
94	Template-Directed Solidification of Eutectic Optical Materials. <i>Advanced Optical Materials</i> , 2018 , 6, 1800871	11	15
93	Deterministic Design of Chemistry and Mesostructure in Li-Ion Battery Electrodes. <i>ACS Nano</i> , 2018 , 12, 3060-3064	16.7	15
92	Tuning coherent radiative thermal conductance in multilayer photonic crystals. <i>Applied Physics Letters</i> , 2008 , 92, 103106	3.4	15
91	An Integrated Liquid Metal Thermal Switch for Active Thermal Management of Electronics. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2019 , 9, 2341-2351	1.7	14
90	Monolithic mtesla-level magnetic induction by self-rolled-up membrane technology. <i>Science Advances</i> , 2020 , 6, eaay4508	14.3	14
89	Micromechanical devices with controllable stiffness fabricated from regular 3D porous materials. <i>Journal of Micromechanics and Microengineering</i> , 2014 , 24, 105006	2	14

88	Enabling New Classes of Templated Materials through Mesoporous Carbon Colloidal Crystals. <i>Advanced Optical Materials</i> , 2013 , 1, 300-304	8.1	14
87	Repetitive Hole-Mask Colloidal Lithography for the Fabrication of Large-Area Low-Cost Plasmonic Multishape Single-Layer Metasurfaces. <i>Advanced Optical Materials</i> , 2015 , 3, 680-686	8.1	14
86	Colloidal Metal-Organic Framework Hexapods Prepared from Postsynthesis Etching with Enhanced Catalytic Activity and Rollable Packing. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 40990-40995	9.5	14
85	General Method for Forming Micrometer-Scale Lateral Chemical Gradients in Polymer Brushes. <i>Chemistry of Materials</i> , 2014 , 26, 2678-2683	9.6	13
84	High Full-Electrode Basis Capacity Template-Free 3D Nanocomposite Secondary Battery Anodes. <i>Small</i> , 2015 , 11, 6265-71	11	13
83	Epitaxial Growth of Three-Dimensionally Mesostructured Single-Crystalline Cu ₂ O via Templated Electrodeposition. <i>Chemistry of Materials</i> , 2014 , 26, 7051-7058	9.6	13
82	Bulk Metal and Ceramics Nanocomposites 2003 , 1-75		13
81	A programmable soft chemo-mechanical actuator exploiting a catalyzed photochemical water-oxidation reaction. <i>Soft Matter</i> , 2017 , 13, 7312-7317	3.6	12
80	Metallic 1T phase MoS ₂ /MnO composites with improved cyclability for lithium-ion battery anodes. <i>Journal of Alloys and Compounds</i> , 2019 , 796, 25-32	5.7	12
79	A composite phase change material thermal buffer based on porous metal foam and low-melting-temperature metal alloy. <i>Applied Physics Letters</i> , 2020 , 116, 071901	3.4	12
78	Tunable Antireflection Coating to Remove Index-Matching Requirement for Interference Lithography. <i>Advanced Optical Materials</i> , 2018 , 6, 1701049	8.1	12
77	Facile fabrication of graphene composite microwires via drying-induced size reduction of hydrogel filaments. <i>RSC Advances</i> , 2014 , 4, 20927-20931	3.7	12
76	Polymer brushes patterned with micrometer-scale chemical gradients using laminar co-flow. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 14320-6	9.5	12
75	Electrodeposited high strength, thermally stable spectrally selective rhenium nickel inverse opals. <i>Nanoscale</i> , 2017 , 9, 11187-11194	7.7	12
74	Two-Dimensional Diffusion of Prodan on Self-Assembled Monolayers Studied by Fluorescence Recovery after Photobleaching. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 13764-13770	3.4	12
73	Dynamic Gradient Directed Molecular Transport and Concentration in Hydrogel Films. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 5001-5006	16.4	11
72	Archimedean lattices emerge in template-directed eutectic solidification. <i>Nature</i> , 2020 , 577, 355-358	50.4	11
71	Enhanced emission from fcc fluorescent photonic crystals. <i>Physical Review B</i> , 2008 , 77,	3.3	11

70	Functional materials and devices by self-assembly. <i>MRS Bulletin</i> , 2020 , 45, 799-806	3.2	11
69	Phase Change Material Heat Sink for Transient Cooling of High-Power Devices. <i>International Journal of Heat and Mass Transfer</i> , 2021 , 170, 121033	4.9	11
68	Pack Aluminization Assisted Enhancement of Thermo-mechanical Properties in Nickel Inverse Opal Structures. <i>Chemistry of Materials</i> , 2018 , 30, 1648-1654	9.6	10
67	Carbon-Free, High-Capacity and Long Cycle Life 1D-2D NiMoO Nanowires/Metallic 1T MoS Composite Lithium-Ion Battery Anodes. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 44593-44600	9.5	10
66	Bifurcation of self-folded polygonal bilayers. <i>Applied Physics Letters</i> , 2017 , 111, 104101	3.4	9
65	3D Holographic Photonic Crystals Containing Embedded Functional Features. <i>Advanced Optical Materials</i> , 2016 , 4, 1533-1540	8.1	9
64	Synthesis and Formation Mechanism of All-Organic Block Copolymer-Directed Templating of Laser-Induced Crystalline Silicon Nanostructures. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 42777-42789	9.5	9
63	Low-Temperature Hydrothermal Synthesis of Colloidal Crystal Templated Nanostructured Single-Crystalline ZnO. <i>Chemistry of Materials</i> , 2017 , 29, 9734-9741	9.6	8
62	Flexible Binder-Free CuS/Polydopamine-Coated Carbon Cloth for High Voltage Supercapacitors. <i>Energy Technology</i> , 2018 , 6, 1852-1858	3.5	8
61	Relationship between Water Desorption and Low-Temperature Densification of Colloidal Anatase Thin Films. <i>Journal of the American Ceramic Society</i> , 1993 , 76, 2529-2533	3.8	8
60	Polymer Composites Containing Phase-Change Microcapsules Displaying Deep Undercooling Exhibit Thermal History-Dependent Mechanical Properties. <i>Advanced Materials Technologies</i> , 2020 , 5, 2000286	6.8	8
59	Good Solid-State Electrolytes Have Low, Glass-Like Thermal Conductivity. <i>Small</i> , 2021 , 17, e2101693	11	8
58	Field Emitters Using Inverse Opal Structures. <i>Advanced Functional Materials</i> , 2019 , 29, 1808571	15.6	8
57	Amplified Detection of Chemical Warfare Agents Using Two-Dimensional Chemical Potential Gradients. <i>ACS Omega</i> , 2018 , 3, 14665-14670	3.9	8
56	Epitaxial growth of three dimensionally structured III-V photonic crystal via hydride vapor phase epitaxy. <i>Journal of Applied Physics</i> , 2015 , 118, 224303	2.5	7
55	Natural Nanobiocomposites, Biomimetic Nanocomposites, and Biologically Inspired Nanocomposites 2003 , 155-214		7
54	A Lamellar Yolk-Shell Lithium-Sulfur Battery Cathode Displaying Ultralong Cycling Life, High Rate Performance, and Temperature Tolerance. <i>Advanced Science</i> , 2021 , 9, e2103517	13.6	7
53	Reconfigurable nanoscale soft materials. <i>Current Opinion in Solid State and Materials Science</i> , 2019 , 23, 41-49	12	7

52	Integration of colloids into a semi-flexible network of fibrin. <i>Soft Matter</i> , 2017 , 13, 1430-1443	3.6	6
51	Dynamic Gradient Directed Molecular Transport and Concentration in Hydrogel Films. <i>Angewandte Chemie</i> , 2017 , 129, 5083-5088	3.6	6
50	Thermoresponsive Stiffening with Microgel Particles in a Semiflexible Fibrin Network. <i>Macromolecules</i> , 2019 , 52, 3029-3041	5.5	6
49	Force-Modulated Equilibria of Mechanophore-Metal Coordinate Bonds. <i>Chemistry of Materials</i> , 2020 , 32, 3869-3878	9.6	6
48	Molecular transport directed via patterned functionalized surfaces. <i>Advanced Materials</i> , 2011 , 23, 1739-1744	4.1	6
47	Template directed assembly of dynamic micellar nanoparticles. <i>Soft Matter</i> , 2011 , 7, 10252	3.6	6
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45	Directed Molecular Collection by E-Jet Printed Microscale Chemical Potential Wells in Hydrogel Films. <i>Advanced Materials</i> , 2018 , 30, e1803140	24	5
44	Processing-Dependent Microstructure of AgCl ₂ /AgCl ₂ Eutectic Photonic Crystals. <i>Advanced Optical Materials</i> , 2018 , 6, 1701316	8.1	5
43	Selective Autonomous Molecular Transport and Collection by Hydrogel-Embedded Supramolecular Chemical Gradients. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 18165-18170	16.4	5
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23	Control of lamellar eutectic orientation via template-directed solidification. <i>Acta Materialia</i> , 2019 , 166, 715-722	8.4	2
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