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List of Publications by Year in descending order

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59
papers

1,677
citations

361296

20
h-index

289141

40
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60
all docs

60
docs citations

60
times ranked

2550
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly Tunable Self-Assembled Nanostructures from a Poly(2-vinylpyridine- <i>b</i> -dimethylsiloxane) Block Copolymer. <i>Nano Letters</i> , 2011, 11, 4095-4101.	4.5	202
2	Uniform Graphene Quantum Dots Patterned from Self-Assembled Silica Nanodots. <i>Nano Letters</i> , 2012, 12, 6078-6083.	4.5	186
3	Reliable Control of Filament Formation in Resistive Memories by Self-Assembled Nanoinsulators Derived from a Block Copolymer. <i>ACS Nano</i> , 2014, 8, 9492-9502.	7.3	93
4	Nanotransfer Printing with sub-10 nm Resolution Realized using Directed Self-Assembly. <i>Advanced Materials</i> , 2012, 24, 3526-3531.	11.1	91
5	Self-Assembly-Induced Formation of High-Density Silicon Oxide Memristor Nanostructures on Graphene and Metal Electrodes. <i>Nano Letters</i> , 2012, 12, 1235-1240.	4.5	89
6	Directed Self-Assembly with Sub-100 Degrees Celsius Processing Temperature, Sub-10 Nanometer Resolution, and Sub-1 Minute Assembly Time. <i>Small</i> , 2012, 8, 3762-3768.	5.2	81
7	Self-Assembled Incorporation of Modulated Block Copolymer Nanostructures in Phase-Change Memory for Switching Power Reduction. <i>ACS Nano</i> , 2013, 7, 2651-2658.	7.3	74
8	Flexible One Diode-One Phase Change Memory Array Enabled by Block Copolymer Self-Assembly. <i>ACS Nano</i> , 2015, 9, 4120-4128.	7.3	74
9	Proximity Injection of Plasticizing Molecules to Self-Assembling Polymers for Large-Area, Ultrafast Nanopatterning in the Sub-10-nm Regime. <i>ACS Nano</i> , 2013, 7, 6747-6757.	7.3	70
10	Eliminating the Trade-Off between the Throughput and Pattern Quality of Sub-15 nm Directed Self-Assembly via Warm Solvent Annealing. <i>Advanced Functional Materials</i> , 2015, 25, 306-315.	7.8	49
11	Deep-Nanoscale Pattern Engineering by Immersion-Induced Self-Assembly. <i>ACS Nano</i> , 2014, 8, 10009-10018.	7.3	46
12	Charge gradient microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 6566-6569.	3.3	44
13	Dual spectra band emissive Eu ²⁺ /Mn ²⁺ -co-activated alkaline earth phosphates for indoor plant growth novel phosphor converted-LEDs. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 11111-11119.	1.3	38
14	Improved formaldehyde gas sensing properties of well-controlled Au nanoparticle-decorated In ₂ O ₃ nanofibers integrated on low power MEMS platform. <i>Journal of Materials Science and Technology</i> , 2020, 38, 56-63.	5.6	38
15	Thermally assisted nanotransfer printing with sub-20-nm resolution and 8-inch wafer scalability. <i>Science Advances</i> , 2020, 6, eabb6462.	4.7	35
16	Host-Guest Self-assembly in Block Copolymer Blends. <i>Scientific Reports</i> , 2013, 3, 3190.	1.6	34
17	Area-Selective Lift-Off Mechanism Based on Dual-Triggered Interfacial Adhesion Switching: Highly Facile Fabrication of Flexible Nanomesh Electrode. <i>ACS Nano</i> , 2017, 11, 3506-3516.	7.3	33
18	Tunable and rapid self-assembly of block copolymers using mixed solvent vapors. <i>Nanoscale</i> , 2014, 6, 15216-15221.	2.8	27

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19	Thermodynamic and Kinetic Tuning of Block Copolymer Based on Random Copolymerization for High-Quality Sub-6 nm Pattern Formation. <i>Advanced Functional Materials</i> , 2018, 28, 1800765.	7.8	23
20	Hierarchical multi-level block copolymer patterns by multiple self-assembly. <i>Nanoscale</i> , 2019, 11, 8433-8441.	2.8	22
21	Mechanical Removal and Rescreening of Local Screening Charges at Ferroelectric Surfaces. <i>Physical Review Applied</i> , 2015, 3, .	1.5	21
22	Folic Acid Functionalized Carbon Dot/Polypyrrole Nanoparticles for Specific Bioimaging and Photothermal Therapy. <i>ACS Applied Bio Materials</i> , 2021, 4, 3453-3461.	2.3	21
23	Improved Moisture Stability of Perovskite Solar Cells with a Surface-Treated PCBM Layer. <i>Solar Rrl</i> , 2019, 3, 1800289.	3.1	20
24	Bipolar resistance switching in Pt/CuOx/Pt via local electrochemical reduction. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	19
25	Surface-Shielding Nanostructures Derived from Self-Assembled Block Copolymers Enable Reliable Plasma Doping for Few-Layer Transition Metal Dichalcogenides. <i>Advanced Functional Materials</i> , 2016, 26, 5631-5640.	7.8	19
26	Enhancing the Directed Self-assembly Kinetics of Block Copolymers Using Binary Solvent Mixtures. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 25843-25850.	4.0	18
27	Localized surface plasmon-enhanced nanosensor platform using dual-responsive polymer nanocomposites. <i>Nanoscale</i> , 2013, 5, 7403.	2.8	16
28	Preparation of Water-Soluble CsPbBr ₃ Perovskite Quantum Dot Nanocomposites via Encapsulation into Amphiphilic Copolymers. <i>ChemistrySelect</i> , 2018, 3, 11320-11325.	0.7	16
29	Pattern formation of metal-oxide hybrid nanostructures via the self-assembly of di-block copolymer blends. <i>Nanoscale</i> , 2019, 11, 18559-18567.	2.8	15
30	Eu ²⁺ -Activated Phase-Pure Oxonitridosilicate Phosphor in a Ba-Si-O-N System via Facile Silicate-Assisted Routes Designed by First-Principles Thermodynamic Simulation. <i>Inorganic Chemistry</i> , 2016, 55, 8750-8757.	1.9	14
31	Individual Confinement of Block Copolymer Microdomains in Nanoscale Crossbar Templates. <i>Advanced Functional Materials</i> , 2019, 29, 1805795.	7.8	12
32	Spatially Ordered Poly(3-hexylthiophene) Fibril Nanostructures via Controlled Evaporative Self-Assembly. <i>Advanced Materials Technologies</i> , 2019, 4, 1800554.	3.0	12
33	Hierarchically Self-Assembled Block Copolymer Blends for Templating Hollow Phase-Change Nanostructures with an Extremely Low Switching Current. <i>Chemistry of Materials</i> , 2015, 27, 2673-2677.	3.2	11
34	Rapid and Cyclable Morphology Transition of High- χ Block Copolymers via Solvent Vapor-Immersion Annealing for Nanoscale Lithography. <i>ACS Applied Nano Materials</i> , 2019, 2, 1294-1301.	2.4	11
35	Molecular imprinting of hemispherical pore-structured thin films via colloidal lithography for gaseous formaldehyde Gravimetric sensing. <i>Applied Surface Science</i> , 2021, 570, 151161.	3.1	11
36	Ring Contact Electrode Process for High Density Phase Change Random Access Memory. <i>Japanese Journal of Applied Physics</i> , 2007, 46, 2001-2005.	0.8	10

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37	Extreme-Pressure Imprint Lithography for Heat and Ultraviolet-Free Direct Patterning of Rigid Nanoscale Features. ACS Nano, 2021, 15, 10464-10471.	7.3	10
38	Current density enhancement nano-contact phase-change memory for low writing current. Applied Physics Letters, 2013, 103, .	1.5	8
39	Synchronized-pressing fabrication of cost-efficient crystalline perovskite solar cells <i>via</i> intermediate engineering. Nanoscale, 2018, 10, 9628-9633.	2.8	8
40	Circular Double-€Patterning Lithography Using a Block Copolymer Template and Atomic Layer Deposition. Advanced Materials Interfaces, 2018, 5, 1800054.	1.9	8
41	Electrical properties of copper-nickel manganite thin films prepared by metal-organic decomposition. Ceramics International, 2017, 43, 9291-9295.	2.3	6
42	Enabling the Selective Detection of Endocrine-Disrupting Chemicals via Molecularly Surface-Imprinted "Coffee Rings". Biomacromolecules, 2021, 22, 1523-1531.	2.6	6
43	Rotating Cylinder-€Assisted Nanoimprint Lithography for Enhanced Chemisorbable Filtration Complemented by Molecularly Imprinted Polymers. Small, 2021, 17, e2105733.	5.2	6
44	Ultra-rapid pattern formation of block copolymers with a high- χ parameter in immersion annealing induced by a homopolymer. RSC Advances, 2016, 6, 21105-21110.	1.7	5
45	Assembly Mechanism and the Morphological Analysis of the Robust Superhydrophobic Surface. Coatings, 2019, 9, 472.	1.2	5
46	Topographically designed hybrid nanostructures<i>via</i> nanotransfer printing and block copolymer self-assembly. Nanoscale, 2021, 13, 11161-11168.	2.8	5
47	Switching-€Modulated Phase Change Memory Realized by Si-€Containing Block Copolymers. Small, 2021, 17, e2105078.	5.2	5
48	Controlled self-assembly of block copolymers in printed sub-20 nm cross-bar structures. Nanoscale Advances, 2021, 3, 5083-5089.	2.2	4
49	Optical analysis of a transparent slippery surface by controlling the refractive index of the porous structure. Journal of Applied Physics, 2019, 126, .	1.1	2
50	Effect of ozone pulse time on the properties of the thin-film amorphous-silicon solar cell with atomic-layer-deposited V2O5-x films as the hole-transporting layer. Current Applied Physics, 2016, 16, 245-250.	1.1	1
51	Enhanced self-assembly of block copolymers by surface modification of a guiding template. Polymer Journal, 2018, 50, 221-229.	1.3	1
52	Hierarchically ordered hybrid nanostructures via spontaneous self-assembly of block copolymer blends. Thin Solid Films, 2020, 701, 137928.	0.8	1
53	Pattern Transfer Printing by Controlling the Deposition Angle to Form Various Patterns. Journal of Korean Institute of Metals and Materials, 2020, 58, 145-150.	0.4	1
54	Low Power Phase Change Memory via Block Copolymer Self-assembly Technology. Materials Research Society Symposia Proceedings, 2013, 1556, 1.	0.1	0

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55	Atomic Layer Deposition: Circular Double-Patterning Lithography Using a Block Copolymer Template and Atomic Layer Deposition (Adv. Mater. Interfaces 16/2018). Advanced Materials Interfaces, 2018, 5, 1870078.	1.9	0
56	Lithography-Free Route to Hierarchical Structuring of High- κ Block Copolymers on a Gradient Patterned Surface. Materials, 2020, 13, 304.	1.3	0
57	Formation of Li ₂ CO ₃ Nanostructures for Lithium-Ion Battery Anode Application by Nanotransfer Printing. Materials, 2021, 14, 1585.	1.3	0
58	Current-Voltage and Impedance Characteristics of ZnO-Zn ₂ BiVO ₆ -Co ₃ O ₄ Varistor with Temperature. Journal of Sensor Science and Technology, 2016, 25, 440-446.	0.1	0
59	Formation of Surface-Wrinkled Metal Nanosheets via Thermally Assisted Nanotransfer Printing. Journal of Korean Institute of Metals and Materials, 2021, 59, 880-885.	0.4	0