Cian A Cummins

List of Publications by Year
in descending order

39	1,021	430754	434063
papers	citations	18 h-index	31 g-index

39	39	39	1107
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An Ultra-Thin Near-Perfect Absorber via Block Copolymer Engineered Metasurfaces. Journal of Colloid and Interface Science, 2022, 609, 375-383.	5.0	4
2	Optimization and Control of Large Block Copolymer Self-Assembly via Precision Solvent Vapor Annealing. Macromolecules, 2021, 54, 1203-1215.	2.2	22
3	Precise Synthesis and Thin Film Self-Assembly of PLLA-b-PS Bottlebrush Block Copolymers. Molecules, 2021, 26, 1412.	1.7	8
4	Block Copolymer Directed Metamaterials and Metasurfaces for Novel Optical Devices. Advanced Optical Materials, 2021, 9, 2100175.	3.6	47
5	Defining Swelling Kinetics in Block Copolymer Thin Films: The Critical Role of Temperature and Vapour Pressure Ramp. Polymers, 2021, 13, 4238.	2.0	0
6	Nonâ€Native Block Copolymer Thin Film Nanostructures Derived from Iterative Selfâ€Assembly Processes. Advanced Materials Interfaces, 2020, 7, 1901747.	1.9	17
7	Precise Definition of a â€œMonolayer Pointâ€•in Polymer Brush Films for Fabricating Highly Coherent TiO₂ Thin Films by Vapor-Phase Infiltration. Langmuir, 2020, 36, 12394-12402.	1.6	13
8	Rapid Self-Assembly and Sequential Infiltration Synthesis of High Ï‡ Fluorine-Containing Block Copolymers. Macromolecules, 2020, 53, 6246-6254.	2.2	10
9	Large area Al₂O₃â€“Au raspberry-like nanoclusters from iterative block-copolymer self-assembly. RSC Advances, 2020, 10, 41088-41097.	1.7	5
10	Strategy for Enhancing Ultrahigh-Molecular-Weight Block Copolymer Chain Mobility to Access Large Period Sizes (>100 nm). Langmuir, 2020, 36, 13872-13880.	1.6	14
11	Enabling future nanomanufacturing through block copolymer self-assembly: A review. Nano Today, 2020, 35, 100936.	6.2	134
12	Engineering block copolymer materials for patterning ultra-low dimensions. Molecular Systems Design and Engineering, 2020, 5, 1642-1657.	1.7	12
13	A Novel Electrochemical Sensor Based on Metal Ion Infiltrated Block Copolymer Thin Films for Sensitive and Selective Determination of Dopamine. ACS Applied Nano Materials, 2019, 2, 7311-7318.	2.4	34
14	Optimizing Polymer Brush Coverage To Develop Highly Coherent Sub-5 nm Oxide Films by Ion Inclusion. Chemistry of Materials, 2019, 31, 9338-9345.	3.2	20
15	Using block copolymers as infiltration sites for development of future nanoelectronic devices: Achievements, barriers, and opportunities. Microelectronic Engineering, 2018, 195, 74-85.	1.1	39
16	Electrochemical Sensing of Hydrogen Peroxide Using Block Copolymer Templated Iron Oxide Nanopatterns. Analytical Chemistry, 2018, 90, 1122-1128.	3.2	41
17	Etchless transition metal dichalcogenide surface nanostructure definition using block copolymer templates. , 2018, , .		0
18	Nanopatterning via Self-Assembly of a Lamellar-Forming Polystyrene-block-Poly(dimethylsiloxane) Diblock Copolymer on Topographical Substrates Fabricated by Nanoimprint Lithography. Nanomaterials, 2018, 8, 32.	1.9	19

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19	Enabling Large-Area Selective Deposition on Metal-Dielectric Patterns using Polymer Brush Deactivation. Journal of Physical Chemistry C, 2018, 122, 14698-14705.	1.5	19
20	Controlled solvent vapor annealing of a high Ï‡ block copolymer thin film. Physical Chemistry Chemical Physics, 2017, 19, 2805-2815.	1.3	48
21	Large Block Copolymer Self-Assembly for Fabrication of Subwavelength Nanostructures for Applications in Optics. Nano Letters, 2017, 17, 2973-2978.	4.5	72
22	Nanoscale silicon substrate patterns from self-assembly of cylinder forming poly(styrene)-block-poly(dimethylsiloxane) block copolymer on silane functionalized surfaces. Nanotechnology, 2017, 28, 044001.	1.3	4
23	Area Selective Polymer Brush Deposition. Macromolecular Rapid Communications, 2017, 38, 1700252.	2.0	17
24	Self-Assembled Nanofeatures in Complex Three-Dimensional Topographies via Nanoimprint and Block Copolymer Lithography Methods. ACS Omega, 2017, 2, 4417-4423.	1.6	5
25	Creating Active Device Materials for Nanoelectronics Using Block Copolymer Lithography. Nanomaterials, 2017, 7, 304.	1.9	25
26	Morphological evolution of lamellar forming polystyrene-block-poly(4-vinylpyridine) copolymers under solvent annealing. Soft Matter, 2016, 12, 5429-5437.	1.2	19
27	Nanoporous membrane production via block copolymer lithography for high heat dissipation systems. , 2016, , .		5
28	In-depth TEM characterization of block copolymer pattern transfer at germanium surfaces. Nanotechnology, 2016, 27, 484003.	1.3	4
29	Strategies for Inorganic Incorporation using Neat Block Copolymer Thin Films for Etch Mask Function and Nanotechnological Application. Advanced Materials, 2016, 28, 5586-5618.	11.1	135
30	Solvothermal Vapor Annealing of Lamellar Poly(styrene)-block-poly(<scp>d</scp>,<scp>l</scp>-lactide) Block Copolymer Thin Films for Directed Self-Assembly Application. ACS Applied Materials & Interfaces, 2016, 8, 8295-8304.	4.0	29
31	Solvent Vapor Annealing of Block Copolymers in Confined Topographies: Commensurability Considerations for Nanolithography. Macromolecular Rapid Communications, 2015, 36, 762-767.	2.0	18
32	Aligned silicon nanofins via the directed self-assembly of PS-b-P4VP block copolymer and metal oxide enhanced pattern transfer. Nanoscale, 2015, 7, 6712-6721.	2.8	47
33	Nanoscale neuroelectrode modification via sub-20Ânm silicon nanowires through self-assembly of block copolymers. Journal of Materials Science: Materials in Medicine, 2015, 26, 120.	1.7	5
34	Parallel Arrays of Sub-10 nm Aligned Germanium Nanofins from an In Situ Metal Oxide Hardmask using Directed Self-Assembly of Block Copolymers. Chemistry of Materials, 2015, 27, 6091-6096.	3.2	23
35	Formation of sub-7 nm feature size PS-b-P4VP block copolymer structures by solvent vapour process. Proceedings of SPIE, 2014, , .	0.8	17
36	Selective etching of polylactic acid in poly(styrene)â€blockâ€poly(<scp>d,l</scp>)lactide diblock copolymer for nanoscale patterning. Journal of Applied Polymer Science, 2014, 131, .	1.3	21

#	Article	IF	Citations
37	Study of the Kinetics and Mechanism of Rapid Self-Assembly in Block Copolymer Thin Films during Solvo-Microwave Annealing. Langmuir, 2014, 30, 10728-10739.	1.6	34
38	Self-assembly of polystyrene-block-poly(4-vinylpyridine) block copolymer on molecularly functionalized silicon substrates: fabrication of inorganic nanostructured etchmask for lithographic use. Journal of Materials Chemistry C, 2013, 1, 7941.	2.7	34
39	Block Copolymer Templated WO3 Surface Nanolines as Catalysts for Enhanced Epinephrine Sensing and the Oxygen Evolution Reaction. ChemElectroChem, 0, , .	1.7	1