

Cian A Cummins

List of Publications by Year in descending order

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430754

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1107
citing authors

#	ARTICLE	IF	CITATIONS
1	Strategies for Inorganic Incorporation using Neat Block Copolymer Thin Films for Etch Mask Function and Nanotechnological Application. <i>Advanced Materials</i> , 2016, 28, 5586-5618.	11.1	135
2	Enabling future nanomanufacturing through block copolymer self-assembly: A review. <i>Nano Today</i> , 2020, 35, 100936.	6.2	134
3	Large Block Copolymer Self-Assembly for Fabrication of Subwavelength Nanostructures for Applications in Optics. <i>Nano Letters</i> , 2017, 17, 2973-2978.	4.5	72
4	Controlled solvent vapor annealing of a high χ block copolymer thin film. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 2805-2815.	1.3	48
5	Aligned silicon nanofins <i>via</i> the directed self-assembly of PS- <i>b</i> -P4VP block copolymer and metal oxide enhanced pattern transfer. <i>Nanoscale</i> , 2015, 7, 6712-6721.	2.8	47
6	Block Copolymer Directed Metamaterials and Metasurfaces for Novel Optical Devices. <i>Advanced Optical Materials</i> , 2021, 9, 2100175.	3.6	47
7	Electrochemical Sensing of Hydrogen Peroxide Using Block Copolymer Templated Iron Oxide Nanopatterns. <i>Analytical Chemistry</i> , 2018, 90, 1122-1128.	3.2	41
8	Using block copolymers as infiltration sites for development of future nanoelectronic devices: Achievements, barriers, and opportunities. <i>Microelectronic Engineering</i> , 2018, 195, 74-85.	1.1	39
9	Self-assembly of polystyrene-block-poly(4-vinylpyridine) block copolymer on molecularly functionalized silicon substrates: fabrication of inorganic nanostructured etchmask for lithographic use. <i>Journal of Materials Chemistry C</i> , 2013, 1, 7941.	2.7	34
10	Study of the Kinetics and Mechanism of Rapid Self-Assembly in Block Copolymer Thin Films during Solvo-Microwave Annealing. <i>Langmuir</i> , 2014, 30, 10728-10739.	1.6	34
11	A Novel Electrochemical Sensor Based on Metal Ion Infiltrated Block Copolymer Thin Films for Sensitive and Selective Determination of Dopamine. <i>ACS Applied Nano Materials</i> , 2019, 2, 7311-7318.	2.4	34
12	Solvothermal Vapor Annealing of Lamellar Poly(styrene)- <i>b</i> -poly(<i>d,l</i> -lactide) Block Copolymer Thin Films for Directed Self-Assembly Application. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 8295-8304.	4.0	29
13	Creating Active Device Materials for Nanoelectronics Using Block Copolymer Lithography. <i>Nanomaterials</i> , 2017, 7, 304.	1.9	25
14	Parallel Arrays of Sub-10 nm Aligned Germanium Nanofins from an In Situ Metal Oxide Hardmask using Directed Self-Assembly of Block Copolymers. <i>Chemistry of Materials</i> , 2015, 27, 6091-6096.	3.2	23
15	Optimization and Control of Large Block Copolymer Self-Assembly via Precision Solvent Vapor Annealing. <i>Macromolecules</i> , 2021, 54, 1203-1215.	2.2	22
16	Selective etching of polylactic acid in poly(styrene)- <i>b</i> -poly(<i>d,l</i> -lactide) diblock copolymer for nanoscale patterning. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	1.3	21
17	Optimizing Polymer Brush Coverage To Develop Highly Coherent Sub-5 nm Oxide Films by Ion Inclusion. <i>Chemistry of Materials</i> , 2019, 31, 9338-9345.	3.2	20
18	Morphological evolution of lamellar forming polystyrene-block-poly(4-vinylpyridine) copolymers under solvent annealing. <i>Soft Matter</i> , 2016, 12, 5429-5437.	1.2	19

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19	Nanopatterning via Self-Assembly of a Lamellar-Forming Polystyrene-block-Poly(dimethylsiloxane) Diblock Copolymer on Topographical Substrates Fabricated by Nanoimprint Lithography. <i>Nanomaterials</i> , 2018, 8, 32.	1.9	19
20	Enabling Large-Area Selective Deposition on Metal-Dielectric Patterns using Polymer Brush Deactivation. <i>Journal of Physical Chemistry C</i> , 2018, 122, 14698-14705.	1.5	19
21	Solvent Vapor Annealing of Block Copolymers in Confined Topographies: Commensurability Considerations for Nanolithography. <i>Macromolecular Rapid Communications</i> , 2015, 36, 762-767.	2.0	18
22	Formation of sub-7 nm feature size PS-b-P4VP block copolymer structures by solvent vapour process. <i>Proceedings of SPIE</i> , 2014, , .	0.8	17
23	Area Selective Polymer Brush Deposition. <i>Macromolecular Rapid Communications</i> , 2017, 38, 1700252.	2.0	17
24	Non-Native Block Copolymer Thin Film Nanostructures Derived from Iterative Self-Assembly Processes. <i>Advanced Materials Interfaces</i> , 2020, 7, 1901747.	1.9	17
25	Strategy for Enhancing Ultrahigh-Molecular-Weight Block Copolymer Chain Mobility to Access Large Period Sizes (>100 nm). <i>Langmuir</i> , 2020, 36, 13872-13880.	1.6	14
26	Precise Definition of a Monolayer Point in Polymer Brush Films for Fabricating Highly Coherent TiO ₂ Thin Films by Vapor-Phase Infiltration. <i>Langmuir</i> , 2020, 36, 12394-12402.	1.6	13
27	Engineering block copolymer materials for patterning ultra-low dimensions. <i>Molecular Systems Design and Engineering</i> , 2020, 5, 1642-1657.	1.7	12
28	Rapid Self-Assembly and Sequential Infiltration Synthesis of High-Fluorine-Containing Block Copolymers. <i>Macromolecules</i> , 2020, 53, 6246-6254.	2.2	10
29	Precise Synthesis and Thin Film Self-Assembly of PLLA-b-PS Bottlebrush Block Copolymers. <i>Molecules</i> , 2021, 26, 1412.	1.7	8
30	Nanoscale neuroelectrode modification via sub-20-nm silicon nanowires through self-assembly of block copolymers. <i>Journal of Materials Science: Materials in Medicine</i> , 2015, 26, 120.	1.7	5
31	Nanoporous membrane production via block copolymer lithography for high heat dissipation systems. , 2016, , .		5
32	Self-Assembled Nanofeatures in Complex Three-Dimensional Topographies via Nanoimprint and Block Copolymer Lithography Methods. <i>ACS Omega</i> , 2017, 2, 4417-4423.	1.6	5
33	Large area Al ₂ O ₃ -Au raspberry-like nanoclusters from iterative block-copolymer self-assembly. <i>RSC Advances</i> , 2020, 10, 41088-41097.	1.7	5
34	In-depth TEM characterization of block copolymer pattern transfer at germanium surfaces. <i>Nanotechnology</i> , 2016, 27, 484003.	1.3	4
35	Nanoscale silicon substrate patterns from self-assembly of cylinder forming poly(styrene)- <i>block</i> -poly(dimethylsiloxane) block copolymer on silane functionalized surfaces. <i>Nanotechnology</i> , 2017, 28, 044001.	1.3	4
36	An Ultra-Thin Near-Perfect Absorber via Block Copolymer Engineered Metasurfaces. <i>Journal of Colloid and Interface Science</i> , 2022, 609, 375-383.	5.0	4

#	ARTICLE	IF	CITATIONS
37	Block Copolymer Templated WO ₃ Surface Nanolines as Catalysts for Enhanced Epinephrine Sensing and the Oxygen Evolution Reaction. ChemElectroChem, 0, , .	1.7	1
38	Etchless transition metal dichalcogenide surface nanostructure definition using block copolymer templates. , 2018, , .		0
39	Defining Swelling Kinetics in Block Copolymer Thin Films: The Critical Role of Temperature and Vapour Pressure Ramp. Polymers, 2021, 13, 4238.	2.0	0