

Ricardo Ruiz

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3208608/publications.pdf>

Version: 2024-02-01

56
papers

5,821
citations

159585

30
h-index

197818

49
g-index

56
all docs

56
docs citations

56
times ranked

5881
citing authors

#	ARTICLE	IF	CITATIONS
1	Density Multiplication and Improved Lithography by Directed Block Copolymer Assembly. <i>Science</i> , 2008, 321, 936-939.	12.6	1,099
2	Pentacene Thin Film Growth. <i>Chemistry of Materials</i> , 2004, 16, 4497-4508.	6.7	588
3	Magnetic recording at 1.5 Å ² using an integrated plasmonic antenna. <i>Nature Photonics</i> , 2010, 4, 484-488.	31.4	412
4	Polymer self assembly in semiconductor microelectronics. <i>IBM Journal of Research and Development</i> , 2007, 51, 605-633.	3.1	397
5	Thickness Dependence of Mobility in Pentacene Thin-Film Transistors. <i>Advanced Materials</i> , 2005, 17, 1795-1798.	21.0	309
6	Nanoscale chemical imaging by photoinduced force microscopy. <i>Science Advances</i> , 2016, 2, e1501571.	10.3	228
7	Pentacene ultrathin film formation on reduced and oxidized Si surfaces. <i>Physical Review B</i> , 2003, 67, .	3.2	204
8	Directed Assembly of Lamellae-Forming Block Copolymers by Using Chemically and Topographically Patterned Substrates. <i>Advanced Materials</i> , 2007, 19, 607-611.	21.0	196
9	Bit-Patterned Magnetic Recording: Theory, Media Fabrication, and Recording Performance. <i>IEEE Transactions on Magnetics</i> , 2015, 51, 1-42.	2.1	179
10	Dynamic Scaling, Island Size Distribution, and Morphology in the Aggregation Regime of Submonolayer Pentacene Films. <i>Physical Review Letters</i> , 2003, 91, 136102.	7.8	172
11	Structure of pentacene thin films. <i>Applied Physics Letters</i> , 2004, 85, 4926-4928.	3.3	163
12	Control of Self-Assembly of Lithographically Patternable Block Copolymer Films. <i>ACS Nano</i> , 2008, 2, 1396-1402.	14.6	149
13	The Limits of Lamellae-Forming PS- <i>b</i> -PMMA Block Copolymers for Lithography. <i>ACS Nano</i> , 2015, 9, 7506-7514.	14.6	128
14	Induced Orientational Order in Symmetric Diblock Copolymer Thin Films. <i>Advanced Materials</i> , 2007, 19, 587-591.	21.0	124
15	Self-Assembly Based Plasmonic Arrays Tuned by Atomic Layer Deposition for Extreme Visible Light Absorption. <i>Nano Letters</i> , 2013, 13, 3352-3357.	9.1	118
16	Rectangular Patterns Using Block Copolymer Directed Assembly for High Bit Aspect Ratio Patterned Media. <i>ACS Nano</i> , 2011, 5, 79-84.	14.6	107
17	High-Resolution PFPE-based Molding Techniques for Nanofabrication of High-Pattern Density, Sub-20 nm Features: A Fundamental Materials Approach. <i>Nano Letters</i> , 2010, 10, 1421-1428.	9.1	96
18	Local Defectivity Control of 2D Self-Assembled Block Copolymer Patterns. <i>Advanced Materials</i> , 2007, 19, 2157-2162.	21.0	92

#	ARTICLE	IF	CITATIONS
19	Directed Self-Assembly of POSS Containing Block Copolymer on Lithographically Defined Chemical Template with Morphology Control by Solvent Vapor. <i>Macromolecules</i> , 2012, 45, 292-304.	4.8	91
20	Early stages of pentacene film growth on silicon oxide. <i>Organic Electronics</i> , 2004, 5, 257-263.	2.6	84
21	Bit Patterned Media at 1 Tdot/in ² and Beyond. <i>IEEE Transactions on Magnetics</i> , 2013, 49, 773-778.	2.1	75
22	Evolutionary Optimization of Directed Self-Assembly of Triblock Copolymers on Chemically Patterned Substrates. <i>ACS Macro Letters</i> , 2014, 3, 747-752.	4.8	64
23	Directed Self-Assembly of Triblock Copolymer on Chemical Patterns for Sub-10-nm Nanofabrication via Solvent Annealing. <i>ACS Nano</i> , 2016, 10, 7855-7865.	14.6	62
24	Strong Coupling of Plasmon and Nanocavity Modes for Dual-Band, Near-Perfect Absorbers and Ultrathin Photovoltaics. <i>ACS Photonics</i> , 2016, 3, 456-463.	6.6	61
25	Double-Patterned Sidewall Directed Self-Assembly and Pattern Transfer of Sub-10 nm PTMSS- <i>b</i> -PMOST. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 13476-13483.	8.0	60
26	Growth dynamics of pentacene thin films: Real-time synchrotron x-ray scattering study. <i>Physical Review B</i> , 2006, 73, .	3.2	56
27	Image quality and pattern transfer in directed self assembly with block-selective atomic layer deposition. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2012, 30, .	1.2	52
28	Topcoat Approaches for Directed Self-Assembly of Strongly Segregating Block Copolymer Thin Films. <i>Journal of Photopolymer Science and Technology</i> = [Fotoripima Konwakai Shi], 2013, 26, 55-58.	0.3	52
29	Nine-fold density multiplication of hcp lattice pattern by directed self-assembly of block copolymer. <i>Polymer</i> , 2009, 50, 4250-4256.	3.8	45
30	Heat-assisted magnetic recording media materials. <i>MRS Bulletin</i> , 2018, 43, 93-99.	3.5	32
31	Fabrication of templates with rectangular bits on circular tracks by combining block copolymer directed self-assembly and nanoimprint lithography. <i>Journal of Micro/ Nanolithography, MEMS, and MOEMS</i> , 2012, 11, 031405-1.	0.9	30
32	Template-polymer commensurability and directed self-assembly block copolymer lithography. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2015, 53, 595-603.	2.1	26
33	Ordering poly(trimethylsilyl styrene- <i>b</i> - <i>D,L</i> -lactide) block copolymers in thin films by solvent annealing using a mixture of domain-selective solvents. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014, 52, 36-45.	2.1	25
34	Rapid directed self assembly of lamellar microdomains from a block copolymer containing hybrid. <i>Applied Physics Letters</i> , 2007, 91, 143106.	3.3	24
35	20nm Pitch Directed Block Copolymer Assembly Using Solvent Annealing for Bit Patterned Media. <i>Journal of Photopolymer Science and Technology</i> = [Fotoripima Konwakai Shi], 2010, 23, 145-148.	0.3	22
36	Bit-Patterned Magnetic Recording: Nanoscale Magnetic Islands for Data Storage. , 2009, , 237-274.		22

#	ARTICLE	IF	CITATIONS
37	Self-Registered Self-Assembly of Block Copolymers. ACS Nano, 2017, 11, 7666-7673.	14.6	20
38	Transfer of self-aligned spacer patterns for single-digit nanofabrication. Nanotechnology, 2015, 26, 085304.	2.6	19
39	Directed self-assembly of high-chi block copolymer for nano fabrication of bit patterned media via solvent annealing. Nanotechnology, 2016, 27, 415601.	2.6	19
40	Line Roughness in Lamellae-Forming Block Copolymer Films. Macromolecules, 2017, 50, 1037-1046.	4.8	17
41	Fabrication of chevron patterns for patterned media with block copolymer directed assembly. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 06F204.	1.2	14
42	Self-Assembly and Directed Assembly of Polymer Grafted Nanocrystals via Solvent Annealing. Macromolecules, 2017, 50, 9636-9646.	4.8	14
43	Practical implementation of order parameter calculation for directed assembly of block copolymer thin films. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 2589-2603.	2.1	13
44	Impact of Out-of-Plane Translational Order in Block Copolymer Lithography. Macromolecules, 2011, 44, 9196-9204.	4.8	12
45	Bit patterned media optimization at 1 Tdot/in2 by post-annealing. Journal of Applied Physics, 2014, 116, .	2.5	12
46	Integration of Servo and High Bit Aspect Ratio Data Patterns on Nanoimprint Templates for Patterned Media. IEEE Transactions on Magnetics, 2012, 48, 2757-2760.	2.1	11
47	Self-assembly for electronics. MRS Bulletin, 2020, 45, 807-814.	3.5	10
48	Control of Morphology Orientation in Lithographically Patternable Diblock Copolymers. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2007, 20, 519-522.	0.3	4
49	Fabrication of templates with rectangular bits on circular tracks by combining block copolymer directed self-assembly and nanoimprint lithography. , 2012, , .		4
50	Path to Move Beyond the Resolution Limit with Directed Self-Assembly. ACS Applied Materials & Interfaces, 2019, 11, 20333-20340.	8.0	4
51	Pulsed laser deposition of conductive metallo-dielectric optical filters. Applied Physics A: Materials Science and Processing, 2002, 74, 307-310.	2.3	3
52	<title>Injection of light into a planar dielectric waveguide of metallic walls</title>. , 2001, , .		1
53	Growth and Morphology of Pentacene Films on Oxide Surfaces. Materials Research Society Symposia Proceedings, 2001, 708, 10541.	0.1	0
54	Special Section Guest Editorial: Alternative Lithographic Technologies. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2014, 13, 031301.	0.9	0

#	ARTICLE	IF	CITATIONS
55	Special Section Guest Editorial: Alternative Lithographic Technologies IV. Journal of Micro/Nanolithography, MEMS, and MOEMS, 2015, 14, 031201.	0.9	0
56	Special Section Guest Editorial: Alternative Lithographic Technologies V. Journal of Micro/Nanolithography, MEMS, and MOEMS, 2016, 15, 031601.	0.9	0