

Eric K Lin

List of Publications by Year in descending order

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99
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4,793
citations

76196

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95083

68
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99
all docs

99
docs citations

99
times ranked

4806
citing authors

#	ARTICLE	IF	CITATIONS
1	Photoresist Latent and Developer Images as Probed by Neutron Reflectivity Methods. <i>Advanced Materials</i> , 2011, 23, 388-408.	11.1	19
2	A Deformation Mechanism for Double- π -Network Hydrogels with Enhanced Toughness. <i>Macromolecular Symposia</i> , 2010, 291-292, 122-126.	0.4	15
3	Measuring the Extent of Phase Separation in Poly-3-Hexylthiophene/Phenyl-C ₆₁ -Butyric Acid Methyl Ester Photovoltaic Blends with ¹ H Spin Diffusion NMR Spectroscopy. <i>Chemistry of Materials</i> , 2010, 22, 2930-2936.	3.2	46
4	Thin-film solid-state proton NMR measurements using a synthetic mica substrate: Polymer blends. <i>Journal of Magnetic Resonance</i> , 2009, 201, 100-110.	1.2	10
5	Tuning block copolymer phase behavior with a selectively associating homopolymer additive. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2009, 47, 2083-2090.	2.4	13
6	Small angle X-ray scattering measurements of spatial dependent linewidth in dense nanoline gratings. <i>Thin Solid Films</i> , 2009, 517, 5844-5847.	0.8	14
7	Dynamics in Multicomponent Polyelectrolyte Solutions. <i>Macromolecules</i> , 2009, 42, 1293-1299.	2.2	11
8	Controlling the Orientation of Terraced Nanoscale π -Ribbons of a Poly(thiophene) Semiconductor. <i>ACS Nano</i> , 2009, 3, 780-787.	7.3	160
9	The Effect of Interfacial Roughness on the Thin Film Morphology and Charge Transport of High-Performance Polythiophenes. <i>Advanced Functional Materials</i> , 2008, 18, 742-750.	7.8	120
10	Well Ordered Polymer Melts from Blends of Disordered Triblock Copolymer Surfactants and Functional Homopolymers. <i>Advanced Materials</i> , 2008, 20, 1603-1608.	11.1	75
11	Self-Sealing of Nanoporous Low Dielectric Constant Patterns Fabricated by Nanoimprint Lithography. <i>Advanced Materials</i> , 2008, 20, 1934-1939.	11.1	16
12	Thermodynamic Interactions in Double-Network Hydrogels. <i>Journal of Physical Chemistry B</i> , 2008, 112, 3903-3909.	1.2	78
13	Molecular Model for Toughening in Double-Network Hydrogels. <i>Journal of Physical Chemistry B</i> , 2008, 112, 8024-8031.	1.2	50
14	Molecular Basis of Mesophase Ordering in a Thiophene-Based Copolymer. <i>Macromolecules</i> , 2008, 41, 5709-5715.	2.2	114
15	Effect of Porogen Molecular Architecture and Loading on Structure of Porous Thin Films. <i>Chemistry of Materials</i> , 2008, 20, 7390-7398.	3.2	5
16	Well-Ordered Polymer Melts with 5 nm Lamellar Domains from Blends of a Disordered Block Copolymer and a Selectively Associating Homopolymer of Low or High Molar Mass. <i>Macromolecules</i> , 2008, 41, 7978-7985.	2.2	51
17	Manipulation of the Asymmetric Swelling Fronts of Photoresist Polyelectrolyte Gradient Thin Films. <i>Journal of Physical Chemistry B</i> , 2008, 112, 15628-15635.	1.2	6
18	Lateral length scales of latent image roughness as determined by off-specular neutron reflectivity. <i>Applied Physics Letters</i> , 2008, 92, 064106.	1.5	10

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19	Porosity characteristics of ultra-low dielectric insulator films directly patterned by nano-imprint lithography. Proceedings of SPIE, 2008, , .	0.8	1
20	Influence of base additives on the reaction-diffusion front of model chemically amplified photoresists. Journal of Vacuum Science & Technology B, 2007, 25, 175.	1.3	26
21	Direct measurement of the spatial extent of the in situ developed latent image by neutron reflectivity. Journal of Vacuum Science & Technology B, 2007, 25, 2514.	1.3	5
22	Characterization of correlated line edge roughness of nanoscale line gratings using small angle x-ray scattering. Journal of Applied Physics, 2007, 102, .	1.1	45
23	Small angle x-ray scattering measurements of lithographic patterns with sidewall roughness from vertical standing waves. Applied Physics Letters, 2007, 90, 193122.	1.5	46
24	Nonuniform structural degradation in porous organosilicate films exposed to plasma, etching, and ashing as characterized by x-ray porosimetry. Applied Physics Letters, 2007, 91, .	1.5	11
25	Identifying materials limits of chemically amplified photoresists. , 2007, , .		7
26	Direct measurement of the in-situ developed latent image: the residual swelling fraction. , 2007, , .		3
27	FTIR measurements of compositional heterogeneities. , 2007, , .		0
28	Evaluation of the 3D compositional heterogeneity effect on line-edge-roughness. , 2007, , .		0
29	Combinatorial screening of the effect of temperature on the microstructure and mobility of a high performance polythiophene semiconductor. Applied Physics Letters, 2007, 90, 012112.	1.5	27
30	Characterization of Compositional Heterogeneity in Chemically Amplified Photoresist Polymer Thin Films with Infrared Spectroscopy. Macromolecules, 2007, 40, 1497-1503.	2.2	19
31	Mesoporous Silica Films with Long-Range Order Prepared from Strongly Segregated Block Copolymer/Homopolymer Blend Templates. Chemistry of Materials, 2007, 19, 5868-5874.	3.2	45
32	Measuring Molecular Order in Poly(3-alkylthiophene) Thin Films with Polarizing Spectroscopies. Langmuir, 2007, 23, 834-842.	1.6	216
33	The molecular origin of enhanced toughness in double-network hydrogels: A neutron scattering study. Polymer, 2007, 48, 7449-7454.	1.8	75
34	Critical Role of Side-Chain Attachment Density on the Order and Device Performance of Polythiophenes. Macromolecules, 2007, 40, 7960-7965.	2.2	321
35	Significant dependence of morphology and charge carrier mobility on substrate surface chemistry in high performance polythiophene semiconductor films. Applied Physics Letters, 2007, 90, 062117.	1.5	136
36	Effects of humidity on unencapsulated poly(thiophene) thin-film transistors. Applied Physics Letters, 2006, 88, 113514.	1.5	61

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37	Real-Time Shape Evolution of Nanoimprinted Polymer Structures during Thermal Annealing. Nano Letters, 2006, 6, 1723-1728.	4.5	74
38	Measurements of the Reaction-Diffusion Front of Model Chemically Amplified Photoresists with Varying Photoacid Size. Macromolecules, 2006, 39, 8311-8317.	2.2	32
39	Effect of Deprotection Extent on Swelling and Dissolution Regimes of Thin Polymer Films. Langmuir, 2006, 22, 10009-10015.	1.6	23
40	Correlating Molecular Design to Microstructure in Thermally Convertible Oligothiophenes: The Effect of Branched versus Linear End Groups. Journal of Physical Chemistry B, 2006, 110, 10645-10650.	1.2	21
41	Dissolution fundamentals of 193-nm methacrylate based photoresists. , 2006, , .		3
42	Fundamentals of the reaction-diffusion process in model EUV photoresists. , 2006, , .		5
43	The deprotection reaction front profile in model 193nm methacrylate-based chemically amplified photoresists. , 2006, 6153, 398.		19
44	Advanced metrology needs for nanoelectronics lithography. Comptes Rendus Physique, 2006, 7, 931-941.	0.3	11
45	Effect of copolymer composition on acid-catalyzed deprotection reaction kinetics in model photoresists. Polymer, 2006, 47, 6293-6302.	1.8	38
46	Exposure dose effects on the reaction-diffusion process in model extreme ultraviolet photoresists. Journal of Vacuum Science & Technology B, 2006, 24, 3044.	1.3	8
47	Structural characteristics of methylsilsesquioxane based porous low-k thin films fabricated with increasing cross-linked particle porogen loading. Journal of Applied Physics, 2006, 100, 064104.	1.1	10
48	Water distribution within immersed polymer films. , 2005, , .		4
49	Moisture absorption into ultrathin hydrophilic polymer films on different substrate surfaces. Polymer, 2005, 46, 1635-1642.	1.8	104
50	Effect of initial resist thickness on residual layer thickness of nanoimprinted structures. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 3023.	1.6	41
51	X-ray and neutron reflectivity measurements of moisture transport through model multilayered barrier films for flexible displays. Journal of Applied Physics, 2005, 97, 114509.	1.1	31
52	Nanoimprint pattern transfer quality from specular x-ray reflectivity. Applied Physics Letters, 2005, 87, 263111.	1.5	26
53	Direct Measurement of the Counterion Distribution within Swollen Polyelectrolyte Films. Langmuir, 2005, 21, 6647-6651.	1.6	33
54	X-ray Absorption Spectroscopy To Probe Surface Composition and Surface Deprotection in Photoresist Films. Langmuir, 2005, 21, 4007-4015.	1.6	28

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55	Control of Moisture at Buried Polymer/Alumina Interfaces through Substrate Surface Modification. Langmuir, 2005, 21, 2460-2464.	1.6	25
56	Influence of a Water Rinse on the Structure and Properties of Poly(3,4-ethylene Terephthalate) Overlaid with Poly(dioxethylene) Thin Films. Journal of Applied Physics, 2005, 98, 104701.	1.6	78
57	Characterization of Ordered Mesoporous Silica Films Using Small-Angle Neutron Scattering and X-ray Porosimetry. Chemistry of Materials, 2005, 17, 1398-1408.	3.2	44
58	Self-Assembly, Molecular Ordering, and Charge Mobility in Solution-Processed Ultrathin Oligothiophene Films. Chemistry of Materials, 2005, 17, 6033-6041.	3.2	65
59	Variations in Semiconducting Polymer Microstructure and Hole Mobility with Spin-Coating Speed. Chemistry of Materials, 2005, 17, 5610-5612.	3.2	217
60	Structural characterization of porous low-k thin films prepared by different techniques using x-ray porosimetry. Journal of Applied Physics, 2004, 95, 2355-2359.	1.1	55
61	Small angle x-ray scattering metrology for sidewall angle and cross section of nanometer scale line gratings. Journal of Applied Physics, 2004, 96, 1983-1987.	1.1	68
62	Formation of deprotected fuzzy blobs in chemically amplified resists. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 3063-3069.	2.4	7
63	Interfacial Effects on Moisture Absorption in Thin Polymer Films. Langmuir, 2004, 20, 5285-5290.	1.6	74
64	Effect of Film Thickness on the Validity of the Sauerbrey Equation for Hydrated Polyelectrolyte Films. Journal of Physical Chemistry B, 2004, 108, 12685-12690.	1.2	223
65	Moisture Absorption and Absorption Kinetics in Polyelectrolyte Films: Influence of Film Thickness. Langmuir, 2004, 20, 1453-1458.	1.6	132
66	Correlation of the Reaction Front with Roughness in Chemically Amplified Photoresists. ACS Symposium Series, 2004, , 86-97.	0.5	4
67	Resolution limitations in chemically amplified photoresist systems. , 2004, 5376, 333.		28
68	Characterization of chemical-vapor-deposited low-k thin films using x-ray porosimetry. Applied Physics Letters, 2003, 82, 1084-1086.	1.5	19
69	Incoherent neutron scattering and the dynamics of thin film photoresist polymers. Journal of Applied Physics, 2003, 93, 1978-1986.	1.1	17
70	Small angle x-ray scattering for sub-100 nm pattern characterization. Applied Physics Letters, 2003, 83, 4059-4061.	1.5	81
71	Polyelectrolyte effects in model photoresist developer solutions. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1403.	1.6	6
72	Deprotection volume characteristics and line-edge morphology in chemically amplified resists. , 2003, , .		1

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73	Subnanometer wavelength metrology of lithographically prepared structures: a comparison of neutron and X-ray scattering. , 2003, , .		1
74	Polymer dynamics and diffusive properties in ultrathin photoresist films. , 2003, , .		6
75	Structural characterization of a porous low-dielectric-constant thin film with a non-uniform depth profile. Applied Physics Letters, 2002, 81, 607-609.	1.5	13
76	Direct Measurement of the Reaction Front in Chemically Amplified Photoresists. Science, 2002, 297, 372-375.	6.0	77
77	Probing surface and bulk chemistry in resist films using near edge x-ray absorption fine structure. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 2920.	1.6	25
78	Combinatorial methodologies offer potential for rapid research of photoresist materials and formulations. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 704.	1.6	3
79	Chain conformation in ultrathin polymer films. , 2002, 4690, 342.		4
80	Structural characterization of deep-submicron lithographic structures using small-angle neutron scattering. , 2002, , .		1
81	Nanoporous Ultralow Dielectric Constant Organosilicates Templated by Triblock Copolymers. Chemistry of Materials, 2002, 14, 369-374.	3.2	130
82	Structural Comparison of Hydrogen Silsesquioxane Based Porous Low-kThin Films Prepared with Varying Process Conditions. Chemistry of Materials, 2002, 14, 1845-1852.	3.2	73
83	Molecular Templating of Nanoporous Ultralow Dielectric Constant (~ 1.5) Organosilicates by Tailoring the Microphase Separation of Triblock Copolymers. Chemistry of Materials, 2001, 13, 2762-2764.	3.2	98
84	Thermal Expansion of Supported Thin Polymer Films: A Direct Comparison of Free Surface vs Total Confinement. Macromolecules, 2001, 34, 3041-3045.	2.2	61
85	Structure and property characterization of low-k dielectric porous thin films. Journal of Electronic Materials, 2001, 30, 304-308.	1.0	17
86	Confinement effects on the spatial extent of the reaction front in ultrathin chemically amplified photoresists. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 2699.	1.6	33
87	Thin film confinement effects on the thermal properties of model photoresist polymers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 2690.	1.6	35
88	Neutron Reflectivity Measurements of Molecular Weight Effects on Polymer Mobility near the Polymer/Solid Interface. Materials Research Society Symposia Proceedings, 2000, 629, 1.	0.1	1
89	Structure and Property Characterization of Porous Low-k Dielectric Constant Thin Films using X-ray Reflectivity and Small Angle Neutron Scattering. Materials Research Society Symposia Proceedings, 2000, 612, 411.	0.1	6
90	A Three-phase Model for the Structure of Porous Thin Films Determined by X-ray Reflectivity and Small-Angle Neutron Scattering. Materials Research Society Symposia Proceedings, 2000, 612, 5222.	0.1	4

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91	Properties of nanoporous silica thin films determined by high-resolution x-ray reflectivity and small-angle neutron scattering. <i>Journal of Applied Physics</i> , 2000, 87, 1193-1200.	1.1	133
92	Small angle neutron scattering measurements of nanoscale lithographic features. <i>Journal of Applied Physics</i> , 2000, 88, 7298-7303.	1.1	7
93	Enhanced Polymer Segment Exchange Kinetics Due to an Applied Shear Field. <i>Macromolecules</i> , 1999, 32, 4741-4744.	2.2	4
94	Reduced Polymer Mobility near the Polymer/Solid Interface as Measured by Neutron Reflectivity. <i>Macromolecules</i> , 1999, 32, 3753-3757.	2.2	157
95	Polymer Interdiffusion near an Attractive Solid Substrate. <i>Macromolecules</i> , 1997, 30, 7224-7231.	2.2	109
96	Semicrystalline Diblock Copolymer Platelets in Dilute Solution. <i>Macromolecules</i> , 1996, 29, 4432-4441.	2.2	120
97	Self Consistent Field Calculations of Interactions between Chains Tethered to Spherical Interfaces. <i>Macromolecules</i> , 1996, 29, 390-397.	2.2	81
98	Effect of Short Diblock Copolymers at Internal Interfaces of Large Diblock Copolymer Mesophases. <i>Macromolecules</i> , 1996, 29, 5920-5925.	2.2	33
99	Structure and interactions in tethered-chain systems. <i>Faraday Discussions</i> , 1994, 98, 121.	1.6	49