

Eric K Lin

List of Publications by Year in descending order

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99
papers

4,793
citations

76196

40
h-index

95083

68
g-index

99
all docs

99
docs citations

99
times ranked

4806
citing authors

#	ARTICLE	IF	CITATIONS
1	Critical Role of Side-Chain Attachment Density on the Order and Device Performance of Polythiophenes. <i>Macromolecules</i> , 2007, 40, 7960-7965.	2.2	321
2	Effect of Film Thickness on the Validity of the Sauerbrey Equation for Hydrated Polyelectrolyte Films. <i>Journal of Physical Chemistry B</i> , 2004, 108, 12685-12690.	1.2	223
3	Variations in Semiconducting Polymer Microstructure and Hole Mobility with Spin-Coating Speed. <i>Chemistry of Materials</i> , 2005, 17, 5610-5612.	3.2	217
4	Measuring Molecular Order in Poly(3-alkylthiophene) Thin Films with Polarizing Spectroscopies. <i>Langmuir</i> , 2007, 23, 834-842.	1.6	216
5	Controlling the Orientation of Terraced Nanoscale "Ribbons" of a Poly(thiophene) Semiconductor. <i>ACS Nano</i> , 2009, 3, 780-787.	7.3	160
6	Reduced Polymer Mobility near the Polymer/Solid Interface as Measured by Neutron Reflectivity. <i>Macromolecules</i> , 1999, 32, 3753-3757.	2.2	157
7	Significant dependence of morphology and charge carrier mobility on substrate surface chemistry in high performance polythiophene semiconductor films. <i>Applied Physics Letters</i> , 2007, 90, 062117.	1.5	136
8	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
9	Moisture Absorption and Absorption Kinetics in Polyelectrolyte Films: Influence of Film Thickness. <i>Langmuir</i> , 2004, 20, 1453-1458.	1.6	132
10	Nanoporous Ultralow Dielectric Constant Organosilicates Templated by Triblock Copolymers. <i>Chemistry of Materials</i> , 2002, 14, 369-374.	3.2	130
11	Semicrystalline Diblock Copolymer Platelets in Dilute Solution. <i>Macromolecules</i> , 1996, 29, 4432-4441.	2.2	120
12	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
13	Molecular Basis of Mesophase Ordering in a Thiophene-Based Copolymer. <i>Macromolecules</i> , 2008, 41, 5709-5715.	2.2	114
14	Polymer Interdiffusion near an Attractive Solid Substrate. <i>Macromolecules</i> , 1997, 30, 7224-7231.	2.2	109
15	Moisture absorption into ultrathin hydrophilic polymer films on different substrate surfaces. <i>Polymer</i> , 2005, 46, 1635-1642.	1.8	104
16	Molecular Templating of Nanoporous Ultralow Dielectric Constant (~ 1.5) Organosilicates by Tailoring the Microphase Separation of Triblock Copolymers. <i>Chemistry of Materials</i> , 2001, 13, 2762-2764.	3.2	98
17	Self Consistent Field Calculations of Interactions between Chains Tethered to Spherical Interfaces. <i>Macromolecules</i> , 1996, 29, 390-397.	2.2	81
18	Small angle x-ray scattering for sub-100 nm pattern characterization. <i>Applied Physics Letters</i> , 2003, 83, 4059-4061.	1.5	81

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19	Influence of a Water Rinse on the Structure and Properties of Poly(3,4-ethylene Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50,742 Td (1.6	78
20	Thermodynamic Interactions in Double-Network Hydrogels. <i>Journal of Physical Chemistry B</i> , 2008, 112, 3903-3909.	1.2	78
21	Direct Measurement of the Reaction Front in Chemically Amplified Photoresists. <i>Science</i> , 2002, 297, 372-375.	6.0	77
22	The molecular origin of enhanced toughness in double-network hydrogels: A neutron scattering study. <i>Polymer</i> , 2007, 48, 7449-7454.	1.8	75
23	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
24	Interfacial Effects on Moisture Absorption in Thin Polymer Films. <i>Langmuir</i> , 2004, 20, 5285-5290.	1.6	74
25	Real-Time Shape Evolution of Nanoimprinted Polymer Structures during Thermal Annealing. <i>Nano Letters</i> , 2006, 6, 1723-1728.	4.5	74
26	Structural Comparison of Hydrogen Silsesquioxane Based Porous Low-kThin Films Prepared with Varying Process Conditions. <i>Chemistry of Materials</i> , 2002, 14, 1845-1852.	3.2	73
27	Small angle x-ray scattering metrology for sidewall angle and cross section of nanometer scale line gratings. <i>Journal of Applied Physics</i> , 2004, 96, 1983-1987.	1.1	68
28	Self-Assembly, Molecular Ordering, and Charge Mobility in Solution-Processed Ultrathin Oligothiophene Films. <i>Chemistry of Materials</i> , 2005, 17, 6033-6041.	3.2	65
29	Thermal Expansion of Supported Thin Polymer Films: A Direct Comparison of Free Surface vs Total Confinement. <i>Macromolecules</i> , 2001, 34, 3041-3045.	2.2	61
30	Effects of humidity on unencapsulated poly(thiophene) thin-film transistors. <i>Applied Physics Letters</i> , 2006, 88, 113514.	1.5	61
31	Structural characterization of porous low-kthin films prepared by different techniques using x-ray porosimetry. <i>Journal of Applied Physics</i> , 2004, 95, 2355-2359.	1.1	55
32	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
33	Molecular Model for Toughening in Double-Network Hydrogels. <i>Journal of Physical Chemistry B</i> , 2008, 112, 8024-8031.	1.2	50
34	Structure and interactions in tethered-chain systems. <i>Faraday Discussions</i> , 1994, 98, 121.	1.6	49
35	Small angle x-ray scattering measurements of lithographic patterns with sidewall roughness from vertical standing waves. <i>Applied Physics Letters</i> , 2007, 90, 193122.	1.5	46
36	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

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37	Characterization of correlated line edge roughness of nanoscale line gratings using small angle x-ray scattering. <i>Journal of Applied Physics</i> , 2007, 102, .	1.1	45
38	Mesoporous Silica Films with Long-Range Order Prepared from Strongly Segregated Block Copolymer/Homopolymer Blend Templates. <i>Chemistry of Materials</i> , 2007, 19, 5868-5874.	3.2	45
39	Characterization of Ordered Mesoporous Silica Films Using Small-Angle Neutron Scattering and X-ray Porosimetry. <i>Chemistry of Materials</i> , 2005, 17, 1398-1408.	3.2	44
40	Effect of initial resist thickness on residual layer thickness of nanoimprinted structures. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2005, 23, 3023.	1.6	41
41	Effect of copolymer composition on acid-catalyzed deprotection reaction kinetics in model photoresists. <i>Polymer</i> , 2006, 47, 6293-6302.	1.8	38
42	Thin film confinement effects on the thermal properties of model photoresist polymers. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001, 19, 2690.	1.6	35
43	Effect of Short Diblock Copolymers at Internal Interfaces of Large Diblock Copolymer Mesophases. <i>Macromolecules</i> , 1996, 29, 5920-5925.	2.2	33
44	Confinement effects on the spatial extent of the reaction front in ultrathin chemically amplified photoresists. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001, 19, 2699.	1.6	33
45	Direct Measurement of the Counterion Distribution within Swollen Polyelectrolyte Films. <i>Langmuir</i> , 2005, 21, 6647-6651.	1.6	33
46	Measurements of the Reaction-Diffusion Front of Model Chemically Amplified Photoresists with Varying Photoacid Size. <i>Macromolecules</i> , 2006, 39, 8311-8317.	2.2	32
47	X-ray and neutron reflectivity measurements of moisture transport through model multilayered barrier films for flexible displays. <i>Journal of Applied Physics</i> , 2005, 97, 114509.	1.1	31
48	Resolution limitations in chemically amplified photoresist systems. , 2004, 5376, 333.		28
49	X-ray Absorption Spectroscopy To Probe Surface Composition and Surface Deprotection in Photoresist Films. <i>Langmuir</i> , 2005, 21, 4007-4015.	1.6	28
50	Combinatorial screening of the effect of temperature on the microstructure and mobility of a high performance polythiophene semiconductor. <i>Applied Physics Letters</i> , 2007, 90, 012112.	1.5	27
51	Nanoimprint pattern transfer quality from specular x-ray reflectivity. <i>Applied Physics Letters</i> , 2005, 87, 263111.	1.5	26
52	Influence of base additives on the reaction-diffusion front of model chemically amplified photoresists. <i>Journal of Vacuum Science & Technology B</i> , 2007, 25, 175.	1.3	26
53	Probing surface and bulk chemistry in resist films using near edge x-ray absorption fine structure. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2002, 20, 2920.	1.6	25
54	Control of Moisture at Buried Polymer/Alumina Interfaces through Substrate Surface Modification. <i>Langmuir</i> , 2005, 21, 2460-2464.	1.6	25

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55	Effect of Deprotection Extent on Swelling and Dissolution Regimes of Thin Polymer Films. <i>Langmuir</i> , 2006, 22, 10009-10015.	1.6	23
56	Correlating Molecular Design to Microstructure in Thermally Convertible Oligothiophenes: The Effect of Branched versus Linear End Groups. <i>Journal of Physical Chemistry B</i> , 2006, 110, 10645-10650.	1.2	21
57	Characterization of chemical-vapor-deposited low-k thin films using x-ray porosimetry. <i>Applied Physics Letters</i> , 2003, 82, 1084-1086.	1.5	19
58	The deprotection reaction front profile in model 193nm methacrylate-based chemically amplified photoresists. , 2006, 6153, 398.		19
59	Characterization of Compositional Heterogeneity in Chemically Amplified Photoresist Polymer Thin Films with Infrared Spectroscopy. <i>Macromolecules</i> , 2007, 40, 1497-1503.	2.2	19
60	Photoresist Latent and Developer Images as Probed by Neutron Reflectivity Methods. <i>Advanced Materials</i> , 2011, 23, 388-408.	11.1	19
61	Structure and property characterization of low-k dielectric porous thin films. <i>Journal of Electronic Materials</i> , 2001, 30, 304-308.	1.0	17
62	Incoherent neutron scattering and the dynamics of thin film photoresist polymers. <i>Journal of Applied Physics</i> , 2003, 93, 1978-1986.	1.1	17
63	Self-Sealing of Nanoporous Low Dielectric Constant Patterns Fabricated by Nanoimprint Lithography. <i>Advanced Materials</i> , 2008, 20, 1934-1939.	11.1	16
64	A Deformation Mechanism for Double-Network Hydrogels with Enhanced Toughness. <i>Macromolecular Symposia</i> , 2010, 291-292, 122-126.	0.4	15
65	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
66	Structural characterization of a porous low-dielectric-constant thin film with a non-uniform depth profile. <i>Applied Physics Letters</i> , 2002, 81, 607-609.	1.5	13
67	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
68	Advanced metrology needs for nanoelectronics lithography. <i>Comptes Rendus Physique</i> , 2006, 7, 931-941.	0.3	11
69	Nonuniform structural degradation in porous organosilicate films exposed to plasma, etching, and ashing as characterized by x-ray porosimetry. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	11
70	Dynamics in Multicomponent Polyelectrolyte Solutions. <i>Macromolecules</i> , 2009, 42, 1293-1299.	2.2	11
71	Structural characteristics of methylsilsesquioxane based porous low-k thin films fabricated with increasing cross-linked particle porogen loading. <i>Journal of Applied Physics</i> , 2006, 100, 064104.	1.1	10
72	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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73	Thin-film solid-state proton NMR measurements using a synthetic mica substrate: Polymer blends. Journal of Magnetic Resonance, 2009, 201, 100-110.	1.2	10
74	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
75	Small angle neutron scattering measurements of nanoscale lithographic features. Journal of Applied Physics, 2000, 88, 7298-7303.	1.1	7
76	Formation of deprotected fuzzy blobs in chemically amplified resists. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 3063-3069.	2.4	7
77	Identifying materials limits of chemically amplified photoresists. , 2007, , .		7
78	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
79	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
80	Polymer dynamics and diffusive properties in ultrathin photoresist films. , 2003, , .		6
81	Manipulation of the Asymmetric Swelling Fronts of Photoresist Polyelectrolyte Gradient Thin Films. Journal of Physical Chemistry B, 2008, 112, 15628-15635.	1.2	6
82	Fundamentals of the reaction-diffusion process in model EUV photoresists. , 2006, , .		5
83	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
84	Effect of Porogen Molecular Architecture and Loading on Structure of Porous Thin Films. Chemistry of Materials, 2008, 20, 7390-7398.	3.2	5
85	Enhanced Polymer Segment Exchange Kinetics Due to an Applied Shear Field. Macromolecules, 1999, 32, 4741-4744.	2.2	4
86	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
87	Chain conformation in ultrathin polymer films. , 2002, 4690, 342.		4
88	Correlation of the Reaction Front with Roughness in Chemically Amplified Photoresists. ACS Symposium Series, 2004, , 86-97.	0.5	4
89	Water distribution within immersed polymer films. , 2005, , .		4
90	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

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91	Dissolution fundamentals of 193-nm methacrylate based photoresists. , 2006, , .		3
92	Direct measurement of the in-situ developed latent image: the residual swelling fraction. , 2007, , .		3
93	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
94	Structural characterizatoin of deep-submicron lithographic structures using small-angle neutron scattering. , 2002, , .		1
95	Deprotection volume characteristics and line-edge morphology in chemcially amplified resists. , 2003, , .		1
96	Subnanometer wavelength metrology of lithographically prepraed structures: a comparison of neutron and X-ray scattering.. , 2003, , .		1
97	Porosity characteristics of ultra-low dielectric insulator films directly patterned by nano-imprint lithography. Proceedings of SPIE, 2008, , .	0.8	1
98	FTIR measurements of compositional heterogeneities. , 2007, , .		0
99	Evaluation of the 3D compositional heterogeneity effect on line-edge-roughness. , 2007, , .		0