Rob G H Lammertink

List of Publications by Year
in descending order

150	6,380	66343	82547
papers	citations	42 h-index	72 g-index

152	152	152	6665
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Membranes and microfluidics: a review. Lab on A Chip, 2006, 6, 1125.	6.0	414
2	Produced water treatment by membranes: A review from a colloidal perspective. Journal of Colloid and Interface Science, 2017, 487, 523-534.	9.4	320
3	Direct Observation of a Nonequilibrium Electro-Osmotic Instability. Physical Review Letters, 2008, 101, 236101.	7.8	260
4	Evaporation-Triggered Wetting Transition for Water Droplets upon Hydrophobic Microstructures. Physical Review Letters, 2010, 104, 116102.	7.8	187
5	Morphology and Microtopology of Cation-Exchange Polymers and the Origin of the Overlimiting Current. Journal of Physical Chemistry B, 2007, 111, 2152-2165.	2.6	174
6	Quantifying effective slip length over micropatterned hydrophobic surfaces. Physics of Fluids, 2009, 21, .	4.0	162
7	Control of slippage with tunable bubble mattresses. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8422-8426.	7.1	157
8	Spontaneous Breakdown of Superhydrophobicity. Physical Review Letters, 2007, 99, 156001.	7.8	142
9	One-step fabrication of porous micropatterned scaffolds to control cell behavior. Biomaterials, 2007, 28, 1998-2009.	11.4	138
10	Electrical Switching of Wetting States on Superhydrophobic Surfaces: A Route Towards Reversible Cassie-to-Wenzel Transitions. Physical Review Letters, 2011, 106, 014501.	7.8	137
11	Phase Separation Micromolding: A New Generic Approach for Microstructuring Various Materials. Small, 2005, 1, 645-655.	10.0	118
12	Assembly of an Artificial Protein Hydrogel through Leucine Zipper Aggregation and Disulfide Bond Formation. Macromolecules, 2005, 38, 3909-3916.	4.8	116
13	Poly(ferrocenyldimethylsilanes) for Reactive Ion Etch Barrier Applications. Chemistry of Materials, 2001, 13, 429-434.	6.7	96
14	Surface Nano- and Microstructuring with Organometallic Polymers. Advances in Polymer Science, 2005, , 91-117.	0.8	91
15	Superhydrophobic Surfaces Having Two-Fold Adjustable Roughness Prepared in a Single Step. Langmuir, 2006, 22, 3125-3130.	3.5	84
16	Cassie-Baxter to Wenzel state wetting transition: Scaling of the front velocity. European Physical Journal E, 2009, 29, 391-397.	1.6	81
17	Polymeric microsieves produced by phase separation micromolding. Journal of Membrane Science, 2006, 283, 411-424.	8.2	78
18	Microstructured hollow fibers for ultrafiltration. Journal of Membrane Science, 2010, 347, 32-41.	8.2	78

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19	Controlled formation of anatase and rutile TiO2 thin films by reactive magnetron sputtering. AIP Advances, 2015, 5, .	1.3	75
20	Crystallization and Melting Behavior of Poly(ferrocenyldimethylsilanes) Obtained by Anionic Polymerization. Macromolecules, 1998, 31, 795-800.	4.8	71
21	Periodic organic-organometallic microdomain structures in poly(styrene-block-ferrocenyldimethylsilane) copolymers and blends with corresponding homopolymers. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 1009-1021.	2.1	67
22	Dynamics of microvortices induced by ion concentration polarization. Physical Review E, 2015, 92, 031003.	2.1	66
23	Modeling intrinsic kinetics in immobilized photocatalytic microreactors. Applied Catalysis B: Environmental, 2014, 150-151, 93-100.	20.2	64
24	Microcontact Printing of Dendrimers, Proteins, and Nanoparticles by Porous Stamps. Journal of the American Chemical Society, 2009, 131, 797-803.	13.7	63
25	Electrochemistry of Surface-Grafted Stimulus-Responsive Monolayers of Poly(ferrocenyldimethylsilane) on Gold. Langmuir, 2005, 21, 5115-5123.	3.5	62
26	Porous Photocatalytic Membrane Microreactor (P2M2): A new reactor concept for photochemistry. Journal of Photochemistry and Photobiology A: Chemistry, 2011, 225, 36-41.	3.9	61
27	Fouling Behavior of Microstructured Hollow Fiber Membranes in Dead-End Filtrations: Critical Flux Determination and NMR Imaging of Particle Deposition. Langmuir, 2011, 27, 1643-1652.	3.5	60
28	Photocatalytic Reactor Design: Guidelines for Kinetic Investigation. Industrial & Engineering Chemistry Research, 2019, 58, 5349-5357.	3.7	59
29	Tailoring the interface layer of the bipolar membrane. Journal of Membrane Science, 2010, 365, 389-398.	8.2	57
30	Visualization and characterization of interfacial polymerization layer formation. Lab on A Chip, 2015, 15, 575-580.	6.0	56
31	Fabrication of nanoporous graphene/polymer composite membranes. Nanoscale, 2017, 9, 10487-10493.	5.6	55
32	Morphology and Surface Relief Structures of Asymmetric Poly(styrene-block-ferrocenylsilane) Thin Films. Macromolecules, 2001, 34, 942-950.	4.8	54
33	Effect of temperature gradients in (reverse) electrodialysis in the Ohmic regime. Journal of Membrane Science, 2018, 548, 421-428.	8.2	53
34	Multiple time scale dynamics in the breakdown of superhydrophobicity. Europhysics Letters, 2008, 81, 66002.	2.0	52
35	Hollow fiber ultrafiltration membranes with microstructured inner skin. Journal of Membrane Science, 2011, 369, 221-227.	8.2	50
36	Organometallic Polyelectrolytes: Synthesis, Characterization and Layer-By-Layer Deposition of Cationic Poly(ferrocenyl(3-ammoniumpropyl)-methylsilane). Macromolecular Rapid Communications, 2001, 22, 30-33.	3.9	49

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37	Porous ceramic mesoreactors: A new approach for gasâ€“liquid contacting in multiphase microreaction technology. Chemical Engineering Journal, 2011, 169, 239-246.	12.7	48
38	Nanowire and Mesh Conformations of Diblock Copolymer Blends at the Air/Water Interface. Nano Letters, 2004, 4, 483-486.	9.1	47
39	Fouling behavior of microstructured hollow fibers in cross-flow filtrations: Critical flux determination and direct visual observation of particle deposition. Journal of Membrane Science, 2011, 372, 210-218.	8.2	47
40	Interfacial aspects of water drop formation at micro-engineered orifices. Journal of Colloid and Interface Science, 2007, 312, 460-469.	9.4	46
41	Confined Electroconvective Vortices at Structured Ion Exchange Membranes. Langmuir, 2018, 34, 2455-2463.	3.5	46
42	Micropatterned Polymer Films by Vapor-Induced Phase Separation Using Permeable Molds. ACS Applied Materials & Interfaces, 2009, 1, 2856-2861.	8.0	43
43	Side-Chain Liquid-Crystalline Polysiloxanes via Anionic Polymerization:â€‰ (n-Undecyloxy)arenecarboxylic Acid Mesogens Linked to Poly(dimethylsiloxane-co-methylvinylsiloxane). Macromolecules, 1997, 30, 266-272.	4.8	42
44	New replication technique for the fabrication of thin polymeric microfluidic devices with tunable porosity. Lab on A Chip, 2005, 5, 1240.	6.0	42
45	Association of hard segments in gas separation through polyurethane membranes with aromatic bulky chain extenders. Journal of Membrane Science, 2019, 574, 136-146.	8.2	42
46	Use of Particle Imaging Velocimetry to measure liquid velocity profiles in liquid and liquid/gas flows through spacer filled channels. Journal of Membrane Science, 2010, 362, 143-153.	8.2	41
47	Geometrical influence on mixing in helical porous membrane microcontactors. Journal of Membrane Science, 2011, 378, 351-358.	8.2	41
48	Dimensionally stable multication-crosslinked poly(arylene piperidinium) membranes for water electrolysis. Journal of Materials Chemistry A, 2022, 10, 8401-8412.	10.3	41
49	The role of wetting on the water flux performance of microsieve membranes. Journal of Membrane Science, 2005, 259, 55-64.	8.2	40
50	Disposable Attenuated Total Reflection-Infrared Crystals from Silicon Wafer: A Versatile Approach to Surface Infrared Spectroscopy. Analytical Chemistry, 2013, 85, 33-38.	6.5	39
51	Towards supported bolaamphiphile membranes for water filtration: Roles of lipid and substrate. Journal of Membrane Science, 2014, 457, 50-61.	8.2	39
52	Particle deposition and biofilm formation on microstructured membranes. Journal of Membrane Science, 2010, 364, 43-51.	8.2	37
53	Fouling behavior of microstructured hollow fiber membranes in submerged and aerated filtrations. Water Research, 2011, 45, 1865-1871.	11.3	37
54	Inelastic non-Newtonian flow over heterogeneously slippery surfaces. Physical Review E, 2017, 95, 023105.	2.1	37

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55	Liquidâ€“liquid displacement in slippery liquid-infused membranes (SLIMs). Soft Matter, 2018, 14, 1780-1788.	2.7	37
56	Porous Multilayer-Coated AFM Tips for Dip-Pen Nanolithography of Proteins. Journal of the American Chemical Society, 2009, 131, 7526-7527.	13.7	36
57	A microfluidic membrane chip for in situ fouling characterization. Journal of Membrane Science, 2010, 346, 202-207.	8.2	36
58	Morphology and Crystallization of Thin Films of Asymmetric Organicâ”Organometallic Diblock Copolymers of Isoprene and Ferrocenyldimethylsilane. Langmuir, 2000, 16, 6245-6252.	3.5	35
59	Tailoring surface properties for controlling droplet formation at microsieve membranes. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 292, 224-235.	4.7	34
60	Bubbles in spacers: Direct observation of bubble behavior in spacer filled membrane channels. Journal of Membrane Science, 2009, 333, 38-44.	8.2	34
61	Polymeric microsieves via phase separation microfabrication: Process and design optimization. Journal of Membrane Science, 2010, 347, 93-100.	8.2	34
62	Hierarchically Structured Assembly of Polymer Microsieves, made by a Combination of Phase Separation Micromolding and Floatâ€€casting. Advanced Materials, 2012, 24, 1551-1557.	21.0	34
63	Surfactant specific ionic strength effects on membrane fouling during produced water treatment. Journal of Colloid and Interface Science, 2019, 556, 12-23.	9.4	34
64	Magnetic properties of large-area particle arrays fabricated using block copolymer lithography. IEEE Transactions on Magnetics, 2002, 38, 2541-2543.	2.1	33
65	Improved performance of thin-film composite forward osmosis membrane with click modified polysulfone substrate. Desalination, 2020, 496, 114731.	8.2	33
66	Protein aggregate deposition and fouling reduction strategies with high-flux silicon nitride microsieves. Journal of Membrane Science, 2006, 273, 68-76.	8.2	32
67	Vibrating polymeric microsieves: Antifouling strategies for microfiltration. Journal of Membrane Science, 2006, 285, 323-333.	8.2	32
68	Performance study of pervaporation in a microfluidic system for the removal of acetone from water. Chemical Engineering Journal, 2016, 284, 1342-1347.	12.7	32
69	Adhesion of emulsified oil droplets to hydrophilic and hydrophobic surfaces â€“ effect of surfactant charge, surfactant concentration and ionic strength. Soft Matter, 2018, 14, 5452-5460.	2.7	32
70	On the Gating Mechanism of Slippery Liquid Infused Porous Membranes. Advanced Materials Interfaces, 2016, 3, 1600025.	3.7	31
71	Comparing flat and micro-patterned surfaces: Gas permeation and tensile stress measurements. Journal of Membrane Science, 2008, 320, 173-178.	8.2	30
72	Shrinkage effects during polymer phase separation on microfabricated molds. Journal of Membrane Science, 2010, 347, 141-149.	8.2	29

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73	Chemical and Thermal Stability of Alkylsilane Based Coatings for Membrane Emulsification. Advanced Engineering Materials, 2004, 6, 749-754.	3.5	28
74	Micro-fabricated metal nozzle plates used for water-in-oil and oil-in-water emulsification. Journal of Membrane Science, 2008, 310, 374-383.	8.2	28
75	On image pre-processing for PIV of single- and two-phase flows over reflecting objects. Experiments in Fluids, 2010, 49, 525-530.	2.4	28
76	CO₂Nucleation in Membrane Spacer Channels Remove Biofilms and Fouling Deposits. Industrial & Engineering Chemistry Research, 2010, 49, 10034-10039.	3.7	28
77	Carbon nanofibers in catalytic membrane microreactors. Journal of Membrane Science, 2011, 381, 244-250.	8.2	27
78	Momentum and mass transport over a bubble mattress: the influence of interface geometry. Soft Matter, 2013, 9, 8949.	2.7	27
79	Intrinsic Photocatalytic Assessment of Reactively Sputtered TiO₂ Films. ACS Applied Materials & Interfaces, 2015, 7, 8727-8732.	8.0	27
80	Porous Multilayer-Coated PDMS Stamps for Protein Printing. Langmuir, 2009, 25, 13972-13977.	3.5	26
81	Desalination by Electrodialysis Using a Stack of Patterned Ionâ€Selective Hydrogels on a Microfluidic Device. Advanced Functional Materials, 2016, 26, 8685-8693.	14.9	26
82	Anion exchange membranes with twisted poly(terphenylene) backbone: Effect of the N-cyclic cations. Journal of Membrane Science, 2021, 635, 119525.	8.2	26
83	Electro-osmotically controllable multi-flow microreactor. Microfluidics and Nanofluidics, 2005, 1, 242-248.	2.2	24
84	Influence of geometrical and operational parameters on the performance of porous catalytic membrane reactors. Chemical Engineering Journal, 2012, 207-208, 814-821.	12.7	24
85	Liquid-Infused Membranes with Oil-in-Water Emulsions. Langmuir, 2019, 35, 9513-9520.	3.5	24
86	Facile Hydrophilic Surface Modification of Poly(tetrafluoroethylene) Using Fluoroalkyl-Terminated Poly(ethylene glycol)s. Advanced Materials, 2003, 15, 66-69.	21.0	23
87	Temperature effects on the electrohydrodynamic and electrokinetic behaviour of ion-selective nanochannels. Journal of Physics Condensed Matter, 2016, 28, 114002.	1.8	23
88	Influence of Rayleigh-BÃ©nard convection on electrokinetic instability in overlimiting current conditions. Physical Review Fluids, 2017, 2, .	2.5	23
89	Synthesis, characterization and thin film formation of end-functionalized organometallic polymers. Chemical Communications, 1999, , 359-360.	4.1	22
90	Microfluidic NF/RO separation: Cell design, performance and application. Journal of Membrane Science, 2012, 396, 67-73.	8.2	22

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91	Influence of temperature gradients on charge transport in asymmetric nanochannels. Physical Chemistry Chemical Physics, 2017, 19, 28232-28238.	2.8	22
92	Flux stabilization of silicon nitride microsieves by backpulsing and surface modification with PEG moieties. Journal of Colloid and Interface Science, 2006, 299, 831-840.	9.4	21
93	Porous Microfluidic Devices â€“ Fabrication and Applications. Chemical Engineering and Technology, 2007, 30, 309-315.	1.5	21
94	Ion Transport through Perforated Graphene. Journal of Physical Chemistry Letters, 2018, 9, 6339-6344.	4.6	21
95	Influence of temperature gradients on mono- and divalent ion transport in electrodialysis at limiting currents. Desalination, 2018, 443, 62-69.	8.2	21
96	Generation of Local Concentration Gradients by Gasâ^'Liquid Contacting. Analytical Chemistry, 2008, 80, 3190-3197.	6.5	20
97	Measurement of biofilm growth and local hydrodynamics using optical coherence tomography. Biomedical Optics Express, 2016, 7, 3508.	2.9	20
98	Why bumpy is better: The role of the dissipation distribution in slip flow over a bubble mattress. Physical Review Fluids, 2016, 1, .	2.5	20
99	Well-defined side-chain liquid-crystalline polysiloxanes. Macromolecular Rapid Communications, 1996, 17, 299-303.	3.9	19
100	Bridging the gap between lab-scale and commercial dimensions of hollow fiber nanofiltration membranes. Journal of Membrane Science, 2021, 624, 119100.	8.2	19
101	Recirculation of Nanoliter Volumes within Microfluidic Channels. Analytical Chemistry, 2004, 76, 3018-3022.	6.5	18
102	Elucidating the effect of chain extenders substituted by aliphatic side chains on morphology and gas separation of polyurethanes. European Polymer Journal, 2020, 122, 109346.	5.4	18
103	Egg-shell membrane reactors for nitrite hydrogenation: Manipulating kinetics and selectivity. Applied Catalysis B: Environmental, 2018, 224, 276-282.	20.2	17
104	Bubbly drag reduction using a hydrophobic inner cylinder in Taylorâ€“Couette turbulence. Journal of Fluid Mechanics, 2020, 883, .	3.4	17
105	The Graetzâ€“Nusselt problem extended to continuum flows with finite slip. Journal of Fluid Mechanics, 2015, 764, .	3.4	16
106	Visual characterization of fouling with bidisperse solution. Journal of Membrane Science, 2011, 368, 110-115.	8.2	15
107	Understanding Mono- and Bivalent Ion Selectivities of Nanoporous Graphene Using Ionic and Bi-ionic Potentials. Langmuir, 2020, 36, 7400-7407.	3.5	15
108	Application of liquid-infused membranes to mitigate biofouling. Environmental Science: Water Research and Technology, 2021, 7, 68-77.	2.4	15

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109	Electroosmotic guiding of sample flows in a laminar flow chamber. Electrophoresis, 2004, 25, 3705-3711.	2.4	14
110	Heat and mass transfer over slippery, superhydrophobic surfaces. Physics of Fluids, 2016, 28, 042002.	4.0	14
111	ATR-IR spectroscopic cell for in situ studies at solid-liquid interface at elevated temperatures and pressures. Catalysis Today, 2017, 283, 185-194.	4.4	14
112	Enhanced ion transport using geometrically structured charge selective interfaces. Lab on A Chip, 2018, 18, 1652-1660.	6.0	14
113	Rate of gas absorption on a slippery bubble mattress. Soft Matter, 2013, 9, 11098.	2.7	13
114	Altering Emulsion Stability with Heterogeneous Surface Wettability. Scientific Reports, 2016, 6, 26953.	3.3	13
115	Carbon nano-fiber based membrane reactor for selective nitrite hydrogenation. Catalysis Today, 2016, 273, 50-61.	4.4	13
116	Poly(ferrocenylsilanes) as etch barriers in nano and microlithographic applications. Macromolecular Symposia, 2003, 196, 45-56.	0.7	12
117	A microgrooved membrane based gasâ€“liquid contactor. Microfluidics and Nanofluidics, 2012, 13, 499-509.	2.2	12
118	Modeling of gasâ€“liquid reactions in porous membrane microreactors. Journal of Membrane Science, 2012, 419-420, 57-64.	8.2	12
119	Oxygenation by a superhydrophobic slip G/L contactor. Lab on A Chip, 2012, 12, 2922.	6.0	12
120	Observation and experimental investigation of confinement effects on ion transport and electrokinetic flows at the microscale. Scientific Reports, 2016, 6, 37236.	3.3	12
121	Enhanced CO2 capture through bulky poly(urethane-urea)-based MMMs containing hyperbranched triazine based silica nanoparticles. Separation and Purification Technology, 2020, 241, 116734.	7.9	12
122	Connecting experimental degradation kinetics to theoretical models for photocatalytic reactors: The influence of mass transport limitations. Chemical Engineering Science, 2021, 245, 116835.	3.8	12
123	Crystallization kinetics and morphology of poly(ferrocenyldimethylsilane). Macromolecular Chemistry and Physics, 1998, 199, 2141-2145.	2.2	11
124	Polymer-in-a-Silica-Crust Membranes:â€‰ Macroporous Materials with Tunable Surface Functionality. Langmuir, 2006, 22, 5459-5468.	3.5	11
125	Water hammer reduces fouling during natural water ultrafiltration. Water Research, 2012, 46, 1113-1120.	11.3	11
126	Spatial Site-Patterning of Wettability in a Microcapillary Tube. ACS Applied Materials & Interfaces, 2016, 8, 10657-10660.	8.0	11

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127	Partially hydrophobized catalyst particles for aqueous nitrite hydrogenation. Applied Catalysis B: Environmental, 2014, 156-157, 166-172.	20.2	10
128	Morphology control of organometallic domains in phase-separated poly(styrene-block-ferrocenyldimethylsilanes). Journal of Polymer Science Part A, 1998, 36, 2147-2150.	2.3	9
129	Electrochemical AFM on surface grafted poly(ferrocenylsilanes). Macromolecular Symposia, 2001, 167, 285-296.	0.7	9
130	Predictive model for convective flows induced by surface reactivity contrast. Physical Review Fluids, 2018, 3, .	2.5	9
131	Transport and surface reaction model of a photocatalytic membrane during the radical filtration of methylene blue. Chemical Engineering Science, 2022, 254, 117617.	3.8	9
132	Reaction induced diffusio-phoresis of ordinary catalytic particles. Reaction Chemistry and Engineering, 2019, 4, 1439-1446.	3.7	8
133	Bacteria Delay the Jamming of Particles at Microchannel Bottlenecks. Scientific Reports, 2016, 6, 31471.	3.3	7
134	Determination of Binding Constants of Polyethylene Glycol Vancomycin Derivatives to Peptide Ligands Using Affinity Capillary Electrophoresis. Chromatographia, 2007, 65, 299-303.	1.3	5
135	Tunable Microstructured Membranes in Organs-on-Chips to Monitor Transendothelial Hydraulic Resistance. Tissue Engineering - Part A, 2019, 25, 1635-1645.	3.1	5
136	Membrane Filtration of Anionic Surfactant Stabilized Emulsions: Effect of Ionic Strength on Fouling and Droplet Adhesion. Colloids and Interfaces, 2019, 3, 9.	2.1	5
137	Electrocatalytic reaction-driven flow. Physical Review Fluids, 2021, 6, .	2.5	5
138	Comparative assessment of hydrocarbon separation performance of bulky poly(urethane-urea)s toward rubbery membranes. Journal of Natural Gas Science and Engineering, 2022, 98, 104356.	4.4	5
139	Fructose dehydration to hydroxyl-methylfurfural in an immobilized catalytic microreactor. Journal of Flow Chemistry, 2020, 10, 461-468.	1.9	4
140	Electrocatalytic Reaction Driven Flow: Role of pH in Flow Reversal. Journal of Physical Chemistry C, 2021, 125, 24876-24886.	3.1	4
141	Network Formation and Sieving Performance of Self-Assembling Hydrogels. Macromolecules, 2003, 36, 9154-9161.	4.8	2
142	Charge Regulation at a Nanoporous Two-Dimensional Interface. ACS Omega, 2021, 6, 2487-2493.	3.5	2
143	Electrocatalytic Reaction Induced Colloidal Accumulation: The Role of Dielectrophoresis. Langmuir, 2022, 38, 3040-3050.	3.5	2
144	Crystallization and melting behaviour of poly(ferrocenylsilanes). Macromolecular Symposia, 1998, 127, 161-163.	0.7	1

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145	Surface texturing inside ceramic macro/micro channels. Journal of the European Ceramic Society, 2010, 30, 1345-1350.	5.7	1
146	Magnetic-controlled membrane transport. National Science Review, 2021, 8, nwab062.	9.5	1
147	Reaction and diffusion dynamics in a microfluidic format. Materials Research Society Symposia Proceedings, 2004, 820, 79.	0.1	0
148	Hybrid silica â€“ polymer macroporous membranes with tunable surface functionality. Desalination, 2006, 199, 296-298.	8.2	0
149	A novel method for the fabrication of freestanding PZT features on substrates. Journal of the European Ceramic Society, 2009, 29, 3227-3233.	5.7	0
150	Crystallization kinetics and morphology of poly(ferrocenyldimethylsilane). Macromolecular Chemistry and Physics, 1998, 199, 2141-2145.	2.2	0