Rob G H Lammertink

List of Publications by Year
in descending order

149 papers	6,380 citations	66234 42 h-index	82410 72 g-index
152 all docs	152 docs citations	152 times ranked	6665 citing authors

#	Article	IF	Citations
1	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.	2.1	5
2	Dimensionally stable multication-crosslinked poly(arylene piperidinium) membranes for water electrolysis. Journal of Materials Chemistry A, 2022, 10, 8401-8412.	5.2	41
3	Electrocatalytic Reaction Induced Colloidal Accumulation: The Role of Dielectrophoresis. Langmuir, 2022, 38, 3040-3050.	1.6	2
4	Transport and surface reaction model of a photocatalytic membrane during the radical filtration of methylene blue. Chemical Engineering Science, 2022, 254, 117617.	1.9	9
5	Application of liquid-infused membranes to mitigate biofouling. Environmental Science: Water Research and Technology, 2021, 7, 68-77.	1.2	15
6	Charge Regulation at a Nanoporous Two-Dimensional Interface. ACS Omega, 2021, 6, 2487-2493.	1.6	2
7	Electrocatalytic reaction-driven flow. Physical Review Fluids, 2021, 6, .	1.0	5
8	Magnetic-controlled membrane transport. National Science Review, 2021, 8, nwab062.	4.6	1
9	Bridging the gap between lab-scale and commercial dimensions of hollow fiber nanofiltration membranes. Journal of Membrane Science, 2021, 624, 119100.	4.1	19
10	Anion exchange membranes with twisted poly(terphenylene) backbone: Effect of the N-cyclic cations. Journal of Membrane Science, 2021, 635, 119525.	4.1	26
11	Connecting experimental degradation kinetics to theoretical models for photocatalytic reactors: The influence of mass transport limitations. Chemical Engineering Science, 2021, 245, 116835.	1.9	12
12	Electrocatalytic Reaction Driven Flow: Role of pH in Flow Reversal. Journal of Physical Chemistry C, 2021, 125, 24876-24886.	1.5	4
13	Elucidating the effect of chain extenders substituted by aliphatic side chains on morphology and gas separation of polyurethanes. European Polymer Journal, 2020, 122, 109346.	2.6	18
14	Bubbly drag reduction using a hydrophobic inner cylinder in Taylorâ€“Couette turbulence. Journal of Fluid Mechanics, 2020, 883, .	1.4	17
15	Improved performance of thin-film composite forward osmosis membrane with click modified polysulfone substrate. Desalination, 2020, 496, 114731.	4.0	33
16	Understanding Mono- and Bivalent Ion Selectivities of Nanoporous Graphene Using Ionic and Bi-ionic Potentials. Langmuir, 2020, 36, 7400-7407.	1.6	15
17	Fructose dehydration to hydroxyl-methylfurfural in an immobilized catalytic microreactor. Journal of Flow Chemistry, 2020, 10, 461-468.	1.2	4
18	Enhanced CO2 capture through bulky poly(urethane-urea)-based MMMs containing hyperbranched triazine based silica nanoparticles. Separation and Purification Technology, 2020, 241, 116734.	3.9	12

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19	Surfactant specific ionic strength effects on membrane fouling during produced water treatment. Journal of Colloid and Interface Science, 2019, 556, 12-23.	5.0	34
20	Liquid-Infused Membranes with Oil-in-Water Emulsions. Langmuir, 2019, 35, 9513-9520.	1.6	24
21	Reaction induced diffusio-phoresis of ordinary catalytic particles. Reaction Chemistry and Engineering, 2019, 4, 1439-1446.	1.9	8
22	Photocatalytic Reactor Design: Guidelines for Kinetic Investigation. Industrial & Engineering Chemistry Research, 2019, 58, 5349-5357.	1.8	59
23	Tunable Microstructured Membranes in Organs-on-Chips to Monitor Transendothelial Hydraulic Resistance. Tissue Engineering - Part A, 2019, 25, 1635-1645.	1.6	5
24	Membrane Filtration of Anionic Surfactant Stabilized Emulsions: Effect of Ionic Strength on Fouling and Droplet Adhesion. Colloids and Interfaces, 2019, 3, 9.	0.9	5
25	Association of hard segments in gas separation through polyurethane membranes with aromatic bulky chain extenders. Journal of Membrane Science, 2019, 574, 136-146.	4.1	42
26	Confined Electroconvective Vortices at Structured Ion Exchange Membranes. Langmuir, 2018, 34, 2455-2463.	1.6	46
27	Liquidâ€“liquid displacement in slippery liquid-infused membranes (SLIMs). Soft Matter, 2018, 14, 1780-1788.	1.2	37
28	Egg-shell membrane reactors for nitrite hydrogenation: Manipulating kinetics and selectivity. Applied Catalysis B: Environmental, 2018, 224, 276-282.	10.8	17
29	Effect of temperature gradients in (reverse) electrodialysis in the Ohmic regime. Journal of Membrane Science, 2018, 548, 421-428.	4.1	53
30	Ion Transport through Perforated Graphene. Journal of Physical Chemistry Letters, 2018, 9, 6339-6344.	2.1	21
31	Enhanced ion transport using geometrically structured charge selective interfaces. Lab on A Chip, 2018, 18, 1652-1660.	3.1	14
32	Influence of temperature gradients on mono- and divalent ion transport in electrodialysis at limiting currents. Desalination, 2018, 443, 62-69.	4.0	21
33	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.	1.2	32
34	Predictive model for convective flows induced by surface reactivity contrast. Physical Review Fluids, 2018, 3, .	1.0	9
35	ATR-IR spectroscopic cell for in situ studies at solid-liquid interface at elevated temperatures and pressures. Catalysis Today, 2017, 283, 185-194.	2.2	14
36	Inelastic non-Newtonian flow over heterogeneously slippery surfaces. Physical Review E, 2017, 95, 023105.	0.8	37

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37	Influence of temperature gradients on charge transport in asymmetric nanochannels. Physical Chemistry Chemical Physics, 2017, 19, 28232-28238.	1.3	22
38	Fabrication of nanoporous graphene/polymer composite membranes. Nanoscale, 2017, 9, 10487-10493.	2.8	55
39	Produced water treatment by membranes: A review from a colloidal perspective. Journal of Colloid and Interface Science, 2017, 487, 523-534.	5.0	320
40	Influence of Rayleigh-BÃ©nard convection on electrokinetic instability in overlimiting current conditions. Physical Review Fluids, 2017, 2, .	1.0	23
41	On the Gating Mechanism of Slippery Liquid Infused Porous Membranes. Advanced Materials Interfaces, 2016, 3, 1600025.	1.9	31
42	Heat and mass transfer over slippery, superhydrophobic surfaces. Physics of Fluids, 2016, 28, 042002.	1.6	14
43	Spatial Site-Patterning of Wettability in a Microcapillary Tube. ACS Applied Materials & Interfaces, 2016, 8, 10657-10660.	4.0	11
44	Measurement of biofilm growth and local hydrodynamics using optical coherence tomography. Biomedical Optics Express, 2016, 7, 3508.	1.5	20
45	Observation and experimental investigation of confinement effects on ion transport and electrokinetic flows at the microscale. Scientific Reports, 2016, 6, 37236.	1.6	12
46	Altering Emulsion Stability with Heterogeneous Surface Wettability. Scientific Reports, 2016, 6, 26953.	1.6	13
47	Bacteria Delay the Jamming of Particles at Microchannel Bottlenecks. Scientific Reports, 2016, 6, 31471.	1.6	7
48	Desalination by Electrodialysis Using a Stack of Patterned Ionâ€Selective Hydrogels on a Microfluidic Device. Advanced Functional Materials, 2016, 26, 8685-8693.	7.8	26
49	Carbon nano-fiber based membrane reactor for selective nitrite hydrogenation. Catalysis Today, 2016, 273, 50-61.	2.2	13
50	Temperature effects on the electrohydrodynamic and electrokinetic behaviour of ion-selective nanochannels. Journal of Physics Condensed Matter, 2016, 28, 114002.	0.7	23
51	Performance study of pervaporation in a microfluidic system for the removal of acetone from water. Chemical Engineering Journal, 2016, 284, 1342-1347.	6.6	32
52	Why bumpy is better: The role of the dissipation distribution in slip flow over a bubble mattress. Physical Review Fluids, 2016, 1, .	1.0	20
53	Dynamics of microvortices induced by ion concentration polarization. Physical Review E, 2015, 92, 031003.	0.8	66
54	Controlled formation of anatase and rutile TiO2 thin films by reactive magnetron sputtering. AIP Advances, 2015, 5, .	0.6	75

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55	The Graetzâ€“Nusselt problem extended to continuum flows with finite slip. Journal of Fluid Mechanics, 2015, 764, .	1.4	16
56	Intrinsic Photocatalytic Assessment of Reactively Sputtered TiO₂ Films. ACS Applied Materials & Interfaces, 2015, 7, 8727-8732.	4.0	27
57	Visualization and characterization of interfacial polymerization layer formation. Lab on A Chip, 2015, 15, 575-580.	3.1	56
58	Towards supported bolaamphiphile membranes for water filtration: Roles of lipid and substrate. Journal of Membrane Science, 2014, 457, 50-61.	4.1	39
59	Modeling intrinsic kinetics in immobilized photocatalytic microreactors. Applied Catalysis B: Environmental, 2014, 150-151, 93-100.	10.8	64
60	Partially hydrophobized catalyst particles for aqueous nitrite hydrogenation. Applied Catalysis B: Environmental, 2014, 156-157, 166-172.	10.8	10
61	Momentum and mass transport over a bubble mattress: the influence of interface geometry. Soft Matter, 2013, 9, 8949.	1.2	27
62	Rate of gas absorption on a slippery bubble mattress. Soft Matter, 2013, 9, 11098.	1.2	13
63	Disposable Attenuated Total Reflection-Infrared Crystals from Silicon Wafer: A Versatile Approach to Surface Infrared Spectroscopy. Analytical Chemistry, 2013, 85, 33-38.	3.2	39
64	Control of slippage with tunable bubble mattresses. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8422-8426.	3.3	157
65	A microgrooved membrane based gasâ€“liquid contactor. Microfluidics and Nanofluidics, 2012, 13, 499-509.	1.0	12
66	Influence of geometrical and operational parameters on the performance of porous catalytic membrane reactors. Chemical Engineering Journal, 2012, 207-208, 814-821.	6.6	24
67	Water hammer reduces fouling during natural water ultrafiltration. Water Research, 2012, 46, 1113-1120.	5.3	11
68	Modeling of gasâ€“liquid reactions in porous membrane microreactors. Journal of Membrane Science, 2012, 419-420, 57-64.	4.1	12
69	Oxygenation by a superhydrophobic slip G/L contactor. Lab on A Chip, 2012, 12, 2922.	3.1	12
70	Microfluidic NF/RO separation: Cell design, performance and application. Journal of Membrane Science, 2012, 396, 67-73.	4.1	22
71	Hierarchically Structured Assembly of Polymer Microsieves, made by a Combination of Phase Separation Micromolding and Floatâ€Casting. Advanced Materials, 2012, 24, 1551-1557.	11.1	34
72	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.	1.6	60

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73	Fouling behavior of microstructured hollow fiber membranes in submerged and aerated filtrations. Water Research, 2011, 45, 1865-1871.	5.3	37
74	Carbon nanofibers in catalytic membrane microreactors. Journal of Membrane Science, 2011, 381, 244-250.	4.1	27
75	Porous Photocatalytic Membrane Microreactor (P2M2): A new reactor concept for photochemistry. Journal of Photochemistry and Photobiology A: Chemistry, 2011, 225, 36-41.	2.0	61
76	Porous ceramic mesoreactors: A new approach for gasâ€“liquid contacting in multiphase microreaction technology. Chemical Engineering Journal, 2011, 169, 239-246.	6.6	48
77	Visual characterization of fouling with bidisperse solution. Journal of Membrane Science, 2011, 368, 110-115.	4.1	15
78	Hollow fiber ultrafiltration membranes with microstructured inner skin. Journal of Membrane Science, 2011, 369, 221-227.	4.1	50
79	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.	4.1	47
80	Geometrical influence on mixing in helical porous membrane microcontactors. Journal of Membrane Science, 2011, 378, 351-358.	4.1	41
81	Electrical Switching of Wetting States on Superhydrophobic Surfaces: A Route Towards Reversible Cassie-to-Wenzel Transitions. Physical Review Letters, 2011, 106, 014501.	2.9	137
82	On image pre-processing for PIV of single- and two-phase flows over reflecting objects. Experiments in Fluids, 2010, 49, 525-530.	1.1	28
83	Particle deposition and biofilm formation on microstructured membranes. Journal of Membrane Science, 2010, 364, 43-51.	4.1	37
84	Surface texturing inside ceramic macro/micro channels. Journal of the European Ceramic Society, 2010, 30, 1345-1350.	2.8	1
85	Microstructured hollow fibers for ultrafiltration. Journal of Membrane Science, 2010, 347, 32-41.	4.1	78
86	Polymeric microsieves via phase separation microfabrication: Process and design optimization. Journal of Membrane Science, 2010, 347, 93-100.	4.1	34
87	Shrinkage effects during polymer phase separation on microfabricated molds. Journal of Membrane Science, 2010, 347, 141-149.	4.1	29
88	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.	4.1	41
89	Tailoring the interface layer of the bipolar membrane. Journal of Membrane Science, 2010, 365, 389-398.	4.1	57
90	A microfluidic membrane chip for in situ fouling characterization. Journal of Membrane Science, 2010, 346, 202-207.	4.1	36

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91	Evaporation-Triggered Wetting Transition for Water Droplets upon Hydrophobic Microstructures. Physical Review Letters, 2010, 104, 116102.	2.9	187
92	CO₂Nucleation in Membrane Spacer Channels Remove Biofilms and Fouling Deposits. Industrial & Engineering Chemistry Research, 2010, 49, 10034-10039.	1.8	28
93	Quantifying effective slip length over micropatterned hydrophobic surfaces. Physics of Fluids, 2009, 21, .	1.6	162
94	Bubbles in spacers: Direct observation of bubble behavior in spacer filled membrane channels. Journal of Membrane Science, 2009, 333, 38-44.	4.1	34
95	A novel method for the fabrication of freestanding PZT features on substrates. Journal of the European Ceramic Society, 2009, 29, 3227-3233.	2.8	0
96	Cassie-Baxter to Wenzel state wetting transition: Scaling of the front velocity. European Physical Journal E, 2009, 29, 391-397.	0.7	81
97	Micropatterned Polymer Films by Vapor-Induced Phase Separation Using Permeable Molds. ACS Applied Materials & Interfaces, 2009, 1, 2856-2861.	4.0	43
98	Porous Multilayer-Coated PDMS Stamps for Protein Printing. Langmuir, 2009, 25, 13972-13977.	1.6	26
99	Porous Multilayer-Coated AFM Tips for Dip-Pen Nanolithography of Proteins. Journal of the American Chemical Society, 2009, 131, 7526-7527.	6.6	36
100	Microcontact Printing of Dendrimers, Proteins, and Nanoparticles by Porous Stamps. Journal of the American Chemical Society, 2009, 131, 797-803.	6.6	63
101	Comparing flat and micro-patterned surfaces: Gas permeation and tensile stress measurements. Journal of Membrane Science, 2008, 320, 173-178.	4.1	30
102	Micro-fabricated metal nozzle plates used for water-in-oil and oil-in-water emulsification. Journal of Membrane Science, 2008, 310, 374-383.	4.1	28
103	Generation of Local Concentration Gradients by Gasâ^'Liquid Contacting. Analytical Chemistry, 2008, 80, 3190-3197.	3.2	20
104	Multiple time scale dynamics in the breakdown of superhydrophobicity. Europhysics Letters, 2008, 81, 66002.	0.7	52
105	Direct Observation of a Nonequilibrium Electro-Osmotic Instability. Physical Review Letters, 2008, 101, 236101.	2.9	260
106	Spontaneous Breakdown of Superhydrophobicity. Physical Review Letters, 2007, 99, 156001.	2.9	142
107	Morphology and Microtopology of Cation-Exchange Polymers and the Origin of the Overlimiting Current. Journal of Physical Chemistry B, 2007, 111, 2152-2165.	1.2	174
108	Porous Microfluidic Devices â€“ Fabrication and Applications. Chemical Engineering and Technology, 2007, 30, 309-315.	0.9	21

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109	Tailoring surface properties for controlling droplet formation at microsieve membranes. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 292, 224-235.	2.3	34
110	One-step fabrication of porous micropatterned scaffolds to control cell behavior. Biomaterials, 2007, 28, 1998-2009.	5.7	138
111	Interfacial aspects of water drop formation at micro-engineered orifices. Journal of Colloid and Interface Science, 2007, 312, 460-469.	5.0	46
112	Determination of Binding Constants of Polyethylene Glycol Vancomycin Derivatives to Peptide Ligands Using Affinity Capillary Electrophoresis. Chromatographia, 2007, 65, 299-303.	0.7	5
113	Membranes and microfluidics: a review. Lab on A Chip, 2006, 6, 1125.	3.1	414
114	Polymer-in-a-Silica-Crust Membranes:â€‰ Macroporous Materials with Tunable Surface Functionality. Langmuir, 2006, 22, 5459-5468.	1.6	11
115	Superhydrophobic Surfaces Having Two-Fold Adjustable Roughness Prepared in a Single Step. Langmuir, 2006, 22, 3125-3130.	1.6	84
116	Hybrid silica â€“ polymer macroporous membranes with tunable surface functionality. Desalination, 2006, 199, 296-298.	4.0	0
117	Flux stabilization of silicon nitride microsieves by backpulsing and surface modification with PEG moieties. Journal of Colloid and Interface Science, 2006, 299, 831-840.	5.0	21
118	Protein aggregate deposition and fouling reduction strategies with high-flux silicon nitride microsieves. Journal of Membrane Science, 2006, 273, 68-76.	4.1	32
119	Polymeric microsieves produced by phase separation micromolding. Journal of Membrane Science, 2006, 283, 411-424.	4.1	78
120	Vibrating polymeric microsieves: Antifouling strategies for microfiltration. Journal of Membrane Science, 2006, 285, 323-333.	4.1	32
121	The role of wetting on the water flux performance of microsieve membranes. Journal of Membrane Science, 2005, 259, 55-64.	4.1	40
122	Surface Nano- and Microstructuring with Organometallic Polymers. Advances in Polymer Science, 2005, , 91-117.	0.4	91
123	Electro-osmotically controllable multi-flow microreactor. Microfluidics and Nanofluidics, 2005, 1, 242-248.	1.0	24
124	Phase Separation Micromolding: A New Generic Approach for Microstructuring Various Materials. Small, 2005, 1, 645-655.	5.2	118
125	Electrochemistry of Surface-Grafted Stimulus-Responsive Monolayers of Poly(ferrocenyldimethylsilane) on Gold. Langmuir, 2005, 21, 5115-5123.	1.6	62
126	New replication technique for the fabrication of thin polymeric microfluidic devices with tunable porosity. Lab on A Chip, 2005, 5, 1240.	3.1	42

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127	Assembly of an Artificial Protein Hydrogel through Leucine Zipper Aggregation and Disulfide Bond Formation. Macromolecules, 2005, 38, 3909-3916.	2.2	116
128	Reaction and diffusion dynamics in a microfluidic format. Materials Research Society Symposia Proceedings, 2004, 820, 79.	0.1	0
129	Chemical and Thermal Stability of Alkylsilane Based Coatings for Membrane Emulsification. Advanced Engineering Materials, 2004, 6, 749-754.	1.6	28
130	Electroosmotic guiding of sample flows in a laminar flow chamber. Electrophoresis, 2004, 25, 3705-3711.	1.3	14
131	Nanowire and Mesh Conformations of Diblock Copolymer Blends at the Air/Water Interface. Nano Letters, 2004, 4, 483-486.	4.5	47
132	Recirculation of Nanoliter Volumes within Microfluidic Channels. Analytical Chemistry, 2004, 76, 3018-3022.	3.2	18
133	Facile Hydrophilic Surface Modification of Poly(tetrafluoroethylene) Using Fluoroalkyl-Terminated Poly(ethylene glycol)s. Advanced Materials, 2003, 15, 66-69.	11.1	23
134	Network Formation and Sieving Performance of Self-Assembling Hydrogels. Macromolecules, 2003, 36, 9154-9161.	2.2	2
135	Poly(ferrocenylsilanes) as etch barriers in nano and microlithographic applications. Macromolecular Symposia, 2003, 196, 45-56.	0.4	12
136	Magnetic properties of large-area particle arrays fabricated using block copolymer lithography. IEEE Transactions on Magnetics, 2002, 38, 2541-2543.	1.2	33
137	Morphology and Surface Relief Structures of Asymmetric Poly(styrene-block-ferrocenylsilane) Thin Films. Macromolecules, 2001, 34, 942-950.	2.2	54
138	Poly(ferrocenyldimethylsilanes) for Reactive Ion Etch Barrier Applications. Chemistry of Materials, 2001, 13, 429-434.	3.2	96
139	Electrochemical AFM on surface grafted poly(ferrocenylsilanes). Macromolecular Symposia, 2001, 167, 285-296.	0.4	9
140	Organometallic Polyelectrolytes: Synthesis, Characterization and Layer-By-Layer Deposition of Cationic Poly(ferrocenyl(3-ammoniumpropyl)-methylsilane). Macromolecular Rapid Communications, 2001, 22, 30-33.	2.0	49
141	Morphology and Crystallization of Thin Films of Asymmetric Organicâ"Organometallic Diblock Copolymers of Isoprene and Ferrocenyldimethylsilane. Langmuir, 2000, 16, 6245-6252.	1.6	35
142	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.	2.4	67
143	Synthesis, characterization and thin film formation of end-functionalized organometallic polymers. Chemical Communications, 1999, , 359-360.	2.2	22
144	Morphology control of organometallic domains in phase-separated poly(styrene-block-ferrocenyldimethylsilanes). Journal of Polymer Science Part A, 1998, 36, 2147-2150.	2.5	9

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145	Crystallization kinetics and morphology of poly(ferrocenyldimethylsilane). Macromolecular Chemistry and Physics, 1998, 199, 2141-2145.	1.1	11
146	Crystallization and Melting Behavior of Poly(ferrocenyldimethylsilanes) Obtained by Anionic Polymerization. Macromolecules, 1998, 31, 795-800.	2.2	71
147	Crystallization and melting behaviour of poly(ferrocenylsilanes). Macromolecular Symposia, 1998, 127, 161-163.	0.4	1
148	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.	2.2	42
149	Well-defined side-chain liquid-crystalline polysiloxanes. Macromolecular Rapid Communications, 1996, 17, 299-303.	2.0	19