

Lian R. Hutchings

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Neutron-Mapping Polymer Flow: Scattering, Flow Visualization, and Molecular Theory. <i>Science</i> , 2003, 301, 1691-1695.	6.0	164
2	Electrospinning Superhydrophobic Fibers Using Surface Segregating End-Functionalized Polymer Additives. <i>Macromolecules</i> , 2011, 44, 6461-6470.	2.2	115
3	HyperMacs: Highly Branched Polymers Prepared by the Polycondensation of AB ₂ Macromonomers, Synthesis and Characterization. <i>Macromolecules</i> , 2005, 38, 5970-5980.	2.2	95
4	HyperMacs to HyperBlocks: A Novel Class of Branched Thermoplastic Elastomer. <i>Macromolecules</i> , 2009, 42, 8675-8687.	2.2	78
5	Monomer Sequence Control via Living Anionic Copolymerization: Synthesis of Alternating, Statistical, and Telechelic Copolymers and Sequence Analysis by MALDI ToF Mass Spectrometry. <i>Macromolecules</i> , 2015, 48, 610-628.	2.2	77
6	DendriMacs. Well-Defined Dendritically Branched Polymers Synthesized by an Iterative Convergent Strategy Involving the Coupling Reaction of AB ₂ Macromonomers. <i>Macromolecules</i> , 2006, 39, 2144-2152.	2.2	75
7	Constriction flows of monodisperse linear entangled polymers: Multiscale modeling and flow visualization. <i>Journal of Rheology</i> , 2005, 49, 501-522.	1.3	72
8	DendriMacs and HyperMacs “emerging as more than just model branched polymers.. <i>Soft Matter</i> , 2008, 4, 2150.	1.2	70
9	HyperMacs “long chain hyperbranched polymers: A dramatically improved synthesis and qualitative rheological analysis. <i>European Polymer Journal</i> , 2008, 44, 665-676.	2.6	56
10	Synthesis and Dynamic Rheological Behavior of Polybutadiene Star Polymers. <i>Macromolecules</i> , 1996, 29, 5717-5722.	2.2	55
11	Kinetic Control of Monomer Sequence Distribution in Living Anionic Copolymerisation. <i>Macromolecular Rapid Communications</i> , 2011, 32, 233-237.	2.0	54
12	Neutron Reflectivity Studies at Liquid~Liquid Interfaces: Methodology and Analysis. <i>Langmuir</i> , 2001, 17, 140-145.	1.6	53
13	Synthesis of Block Copolymers by Changing Living Anionic Polymerization into Living Ring Opening Metathesis Polymerization. <i>Macromolecules</i> , 2004, 37, 2035-2040.	2.2	50
14	Measuring and Predicting the Dynamics of Linear Monodisperse Entangled Polymers in Rapid Flow through an Abrupt Contraction. A Small Angle Neutron Scattering Study. <i>Macromolecules</i> , 2006, 39, 2700-2709.	2.2	50
15	Towards bio-based tapered block copolymers: the behaviour of myrcene in the statistical anionic copolymerisation. <i>Polymer Chemistry</i> , 2019, 10, 1213-1220.	1.9	49
16	Modifying and managing the surface properties of polymers. <i>Polymer International</i> , 2008, 57, 163-170.	1.6	47
17	Rouse and Reptation Dynamics of Linear Polybutadiene Chains Studied by ² H NMR Transverse Relaxation. <i>Macromolecules</i> , 1998, 31, 8871-8877.	2.2	44
18	Multi-End-Functionalized Polymers: Additives to Modify Polymer Properties at Surfaces and Interfaces. <i>Macromolecules</i> , 2007, 40, 1969-1980.	2.2	39

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19	Dynamics of Star Polymers in Fast Extensional Flow and Stress Relaxation. <i>Macromolecules</i> , 2016, 49, 6694-6699.	2.2	36
20	Synthesis and characterisation of poly(sodium 4-styrenesulfonate) combs. <i>Polymer</i> , 2006, 47, 3455-3463.	1.8	35
21	In Silico Molecular Design, Synthesis, Characterization, and Rheology of Dendritically Branched Polymers: Closing the Design Loop. <i>ACS Macro Letters</i> , 2012, 1, 404-408.	2.3	35
22	Self-Diffusion and Viscoelastic Measurements of Polystyrene Star Polymers. <i>Macromolecules</i> , 2006, 39, 1290-1296.	2.2	33
23	Rheological properties of HyperMacs [®] long [®] chain branched analogues of hyperbranched polymers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2007, 45, 2762-2769.	2.4	33
24	Complex Branched Polymers for Structure [®] Property Correlation Studies: The Case for Temperature Gradient Interaction Chromatography Analysis. <i>Macromolecules</i> , 2012, 45, 5621-5639.	2.2	33
25	A Facile Route to Synthesize Well [®] Defined Polybutadiene DendriMacs. <i>Macromolecular Rapid Communications</i> , 2008, 29, 633-637.	2.0	32
26	The generation of end group information from poly(styrene)s by means of matrix-assisted laser desorption/ionisation-collision induced dissociation. <i>Polymer</i> , 2000, 41, 7437-7450.	1.8	31
27	HyperMacs. Long Chain Branched Analogues of Hyperbranched Polymers Prepared by the Polycondensation of AB ₂ Macromonomers. <i>Macromolecular Symposia</i> , 2006, 240, 56-67.	0.4	31
28	Influence of Architecture on Arm Dimensions and Interaction Parameters in Polybutadiene Star Polymers. <i>Macromolecules</i> , 1999, 32, 880-891.	2.2	30
29	Solvent Accelerated Polymer Diffusion in Thin Films. <i>Macromolecules</i> , 2005, 38, 4339-4344.	2.2	30
30	A Deuterium NMR Study of Selectively Labeled Polybutadiene Star Polymers. <i>Macromolecules</i> , 2000, 33, 7101-7106.	2.2	29
31	Structure of a Spread Film of a Polybutadiene [®] Poly(ethylene oxide) Linear Diblock Copolymer at the Air [®] Water Interface As Determined by Neutron Reflectometry. <i>Langmuir</i> , 2001, 17, 131-139.	1.6	27
32	Surface-active fluorocarbon end-functionalized polylactides. <i>Polymer</i> , 2006, 47, 8116-8122.	1.8	26
33	Aggregation, Adsorption, and Surface Properties of Multiply End-Functionalized Polystyrenes. <i>Langmuir</i> , 2007, 23, 4405-4413.	1.6	26
34	Chain Architecture as an Orthogonal Parameter To Influence Block Copolymer Morphology. Synthesis and Characterization of Hyperbranched Block Copolymers: HyperBlocks. <i>Macromolecules</i> , 2015, 48, 8806-8822.	2.2	26
35	The long-chain dynamics in a model homopolymer blend under strong flow: small-angle neutron scattering and theory. <i>Soft Matter</i> , 2009, 5, 2383.	1.2	25
36	Monomer Sequencing in Living Anionic Polymerization Using Kinetic Control. <i>Macromolecular Symposia</i> , 2013, 323, 42-50.	0.4	25

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37	Roles of Chain Length, Chain Architecture, and Time in the Initiation of Visible Crazes in Polystyrene. <i>Macromolecules</i> , 2008, 41, 4484-4491.	2.2	23
38	Synthesis and surface activity of high and low surface energy multi-end functional polybutadiene additives. <i>Soft Matter</i> , 2012, 8, 3487.	1.2	23
39	Surface Modification of Polyethylene with Multi-End-Functional Polyethylene Additives. <i>Langmuir</i> , 2012, 28, 5125-5137.	1.6	22
40	Multi-end functionalised polymer additives synthesised by living anionic polymerisation—the impact of additive molecular structure upon surface properties. <i>Polymer Chemistry</i> , 2011, 2, 851.	1.9	21
41	Discussion on “Aperiodic Copolymers”. <i>ACS Macro Letters</i> , 2016, 5, 1-3.	2.3	21
42	Fire and Forget! One-Shot Synthesis and Characterization of Block-Like Statistical Terpolymers via Living Anionic Polymerization. <i>Journal of Polymer Science Part A</i> , 2019, 57, 382-394.	2.5	21
43	The metathetic degradation of polyisoprene and polybutadiene in block copolymers using Grubbs second generation catalyst. <i>Polymer Degradation and Stability</i> , 2011, 96, 1074-1080.	2.7	20
44	Novel multi end-functionalised polymers. Additives to modify polymer properties at surfaces and interfaces. <i>Soft Matter</i> , 2006, 2, 126-128.	1.2	19
45	Synthesis of deuterobutadiene-butadiene AB 2 and AB 3 miktoarm star copolymers. <i>Polymer Bulletin</i> , 1998, 41, 283-289.	1.7	17
46	Block Copolymers by the Conversion of Living Lithium Initiated Anionic Polymerization into Living Ruthenium ROMP. <i>Macromolecules</i> , 2006, 39, 5639-5645.	2.2	16
47	Recoverable surface modification using dendritically fluorocarbon-functionalized poly(methyl methacrylate) (PMMA) overlock 10 T	1.5	16
48	Neutron reflectometry investigation of polymer-polymer reactions at the interface between immiscible polymers. <i>Polymer</i> , 2003, 44, 7689-7700.	1.8	15
49	Understanding copolymerisation kinetics for the design of functional copolymers via free radical polymerisation. <i>Polymer Chemistry</i> , 2019, 10, 5665-5675.	1.9	15
50	Synthesis and temperature gradient interaction chromatography of model asymmetric star polymers by the “macromonomer” approach. <i>European Polymer Journal</i> , 2013, 49, 2769-2784.	2.6	14
51	Suspension polymerization of poly(methyl methacrylate)/clay nanocomposites. <i>Journal of Applied Polymer Science</i> , 2009, 113, 1307-1315.	1.3	13
52	pH-Controlled Polymer Surface Segregation. <i>Langmuir</i> , 2009, 25, 3184-3188.	1.6	13
53	HyperMacs – Highly Branched Network Precursors or Semi-Interpenetrating Networks?. <i>Macromolecular Symposia</i> , 2010, 291-292, 26-35.	0.4	13
54	Neutron flow-mapping: Multiscale modelling opens a new experimental window. <i>Soft Matter</i> , 2009, 5, 4426.	1.2	12

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55	Synthesis and characterisation of end-functionalised poly(N-vinylpyrrolidone) additives by reversible addition-fragmentation transfer polymerisation. <i>Polymer Chemistry</i> , 2013, 4, 2815.	1.9	12
56	Modifying polyester surfaces with incompatible polymer additives. <i>Reactive and Functional Polymers</i> , 2015, 89, 40-48.	2.0	12
57	Capillary Wave Properties of a Spread Film of a Polybutadiene-Poly(ethylene oxide) Block Copolymer: 1. Air-Water Interface. <i>Langmuir</i> , 2001, 17, 5297-5304.	1.6	11
58	Surface adsorption of polar end-functionalised polystyrenes. <i>Soft Matter</i> , 2006, 2, 981.	1.2	11
59	Film thickness effects on the distribution of high-molecular-weight heterotelechelic polymers. <i>European Physical Journal E</i> , 2002, 8, 121-128.	0.7	10
60	Synthesis of well-defined graft co-polymers via coupled living anionic and living ring-opening metathesis polymerisation. <i>Designed Monomers and Polymers</i> , 2004, 7, 619-632.	0.7	10
61	Multihydroxyl End Functional Polyethylenes: Synthesis, Bulk and Interfacial Properties of Polymer Surfactants. <i>Macromolecules</i> , 2014, 47, 2062-2071.	2.2	10
62	Capillary Wave Properties of a Spread Film of a Polybutadiene-Poly(ethylene oxide) Block Copolymer: 2. Cyclohexane-Water Interface. <i>Langmuir</i> , 2001, 17, 5305-5313.	1.6	9
63	Interface development in polycarbonate/poly(methyl methacrylate) bilayer films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2001, 39, 2351-2362.	2.4	9
64	The Roles of Blending and of Molecular Weight Distribution on Craze Initiation. <i>Macromolecules</i> , 2017, 50, 9507-9514.	2.2	9
65	Partitioning of a heterotelechelic polystyrene to separate interfaces of thin films. <i>European Physical Journal E</i> , 2001, 5, 451-464.	0.7	8
66	End-Functionalized Chains via Anionic Polymerization: Can the Problems with Using Diphenylethylene Derivatives be Solved by using Bisphenol F?. <i>Macromolecular Chemistry and Physics</i> , 2018, 219, 1700386.	1.1	8
67	Normal-phase (temperature gradient) interaction chromatography - A powerful tool for the characterisation of high molecular weight chain-end functionalised polymers. <i>European Polymer Journal</i> , 2015, 73, 105-115.	2.6	7
68	The self-assembly and thermoresponsivity of poly(isoprene-b-methyl methacrylate) copolymers in non-polar solvents. <i>European Polymer Journal</i> , 2021, 156, 110631.	2.6	6
69	Chain Deformation in Entangled Polymer Melts at Re-entrant Corners. <i>Macromolecules</i> , 2010, 43, 1539-1542.	2.2	5
70	Tales of the unexpected. The non-random statistical copolymerisation of myrcene and styrene in the presence of a polar modifier. <i>Polymer Chemistry</i> , 2020, 11, 7020-7025.	1.9	5
71	Synthesis and characterisation of a mussel-inspired hydrogel film coating for biosensors. <i>European Polymer Journal</i> , 2021, 153, 110503.	2.6	5
72	Small-Angle Neutron Scattering from Single Arm Labeled Polybutadiene Star Polymers in Dilute Solution. <i>Macromolecules</i> , 2001, 34, 5571-5578.	2.2	4

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73	Polymer Blends in a Contraction-Expansion Flow. <i>Macromolecules</i> , 2006, 39, 7607-7616.	2.2	4
74	Temperature Gradient Interaction Chromatography: A Perspective. <i>Chromatographia</i> , 2021, 84, 813-818.	0.7	4
75	Synthesis of \pm -macrozwitterionic polymers. End group analysis by SEC. <i>Polymer</i> , 2000, 41, 8175-8182.	1.8	3
76	Macromolecular engineering: a synthetic perspective. <i>Plastics, Rubber and Composites</i> , 2006, 35, 403-409.	0.9	3
77	Spontaneous Nanoparticle Dispersal in Polybutadiene by Brush-Forming End-Functional Polymers. <i>Macromolecules</i> , 2016, 49, 1434-1443.	2.2	3
78	Synthesis and coupling of AB _x polysiloxane macromonomers to form highly branched polysiloxanes. <i>European Polymer Journal</i> , 2019, 113, 254-259.	2.6	3
79	Structure of flexible telechelic zwitterions in solutions. <i>Physica B: Condensed Matter</i> , 2004, 350, E975-E977.	1.3	2
80	Nonsolvent Annealing Polymer Films with Ionic Liquids. <i>Langmuir</i> , 2010, 26, 15486-15493.	1.6	2
81	Hyperbranched Polymers. Synthesis, Properties, and Applications. Herausgegeben von Deyue Yan, Chao Gao und Holger Frey.. <i>Angewandte Chemie</i> , 2012, 124, 2593-2593.	1.6	1
82	A Novel Method of Extraction of Blend Component Structure from SANS Measurements of Homopolymer Bimodal Blends. <i>Macromolecular Chemistry and Physics</i> , 2014, 215, 859-866.	1.1	1
83	Rheological Properties of HyperMacs™ Long Chain Branched Analogues of Hyperbranched Polymers. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	0
84	Neutron Flow-Mapping of Controlled-Architecture Polymer Melts. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	0
85	Romp: The Method of Choice for Precise Macromolecular Engineering and Synthesis of Smart Materials. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , 2009, , 223-236.	0.5	0