

Wayne F Reed

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

111
papers

2,117
citations

26
h-index

39
g-index

114
ext. papers

2,234
ext. citations

3.5
avg, IF

4.72
L-index

#	Paper	IF	Citations
111	Dependence of polyelectrolyte apparent persistence lengths, viscosity, and diffusion on ionic strength and linear charge density. <i>Macromolecules</i> , 1991 , 24, 6189-6198	5.5	98
110	Absolute, On-Line Monitoring of Molar Mass during Polymerization Reactions. <i>Macromolecules</i> , 1998 , 31, 7226-7238	5.5	86
109	Apparent persistence lengths and diffusion behavior of high molecular weight hyaluronate. <i>Biopolymers</i> , 1990 , 30, 1101-1112	2.2	86
108	Kinetics and Mechanisms of Acrylamide Polymerization from Absolute, Online Monitoring of Polymerization Reaction. <i>Macromolecules</i> , 2001 , 34, 1180-1191	5.5	84
107	Monte Carlo study of titration of linear polyelectrolytes. <i>Journal of Chemical Physics</i> , 1992 , 96, 1609-1620	3.9	80
106	Online Monitoring of Controlled Radical Polymerization: Nitroxide-Mediated Gradient Copolymerization. <i>Macromolecules</i> , 2004 , 37, 966-975	5.5	64
105	Monte Carlo electrostatic persistence lengths compared with experiment and theory. <i>Journal of Chemical Physics</i> , 1991 , 94, 8479-8486	3.9	58
104	Surfactant/Polymer Assemblies. 1. Surfactant Binding Properties. <i>Macromolecules</i> , 1998 , 31, 2957-2965	5.5	54
103	Polyelectrolyte properties of proteoglycan monomers. <i>Journal of Chemical Physics</i> , 1991 , 94, 4568-4580	3.9	47
102	Kinetics and molecular weight evolution during controlled radical polymerization. <i>Macromolecular Chemistry and Physics</i> , 2002 , 203, 2029-2041	2.6	44
101	Aggregates and other particles as the origin of the extraordinary diffusional phase in polyelectrolyte solutions. <i>Biopolymers</i> , 1992 , 32, 1105-1122	2.2	43
100	Comparison of On-line Single-Capillary and Bridge Capillary Viscometric Detectors for Size Exclusion Chromatography. <i>International Journal of Polymer Analysis and Characterization</i> , 1997 , 4, 99-132	1.7	42
99	Electrostatic and Association Phenomena in Aggregates of Polymers and Micelles. <i>Langmuir</i> , 2002 , 18, 353-364	4	42
98	Automated batch characterization of polymer solutions by static light scattering and viscometry. <i>Journal of Applied Polymer Science</i> , 1999 , 73, 2359-2367	2.9	40
97	Data evaluation for unified multi-detector size exclusion chromatography [molar mass, viscosity and radius of gyration distributions]. <i>Macromolecular Chemistry and Physics</i> , 1995 , 196, 1539-1575	2.6	38
96	Electrostatically Enhanced Second and Third Virial Coefficients, Viscosity, and Interparticle Correlations for Linear Polyelectrolytes. <i>Macromolecules</i> , 2002 , 35, 5218-5227	5.5	34
95	Surfactant/Polymer Assemblies. 2. Polyelectrolyte Properties. <i>Macromolecules</i> , 1998 , 31, 2966-2971	5.5	34

94	The effects of pH on hyaluronate as observed by light scattering. <i>Biopolymers</i> , 1989 , 28, 1981-2000	2.2	34
93	Monitoring protein aggregation kinetics with simultaneous multiple sample light scattering. <i>Analytical Biochemistry</i> , 2013 , 437, 185-97	3.1	31
92	Dissolution kinetics of polymer powders. <i>AIChE Journal</i> , 2000 , 46, 1290-1299	3.6	31
91	Coupling of near infrared spectroscopy to automatic continuous online monitoring of polymerization reactions. <i>European Polymer Journal</i> , 2005 , 41, 535-545	5.2	29
90	Automatic continuous online monitoring of polymerization reactions (ACOMP). <i>Polymer International</i> , 2008 , 57, 390-396	3.3	28
89	A Method for Online Monitoring of Polydispersity during Polymerization Reactions. <i>Macromolecules</i> , 2000 , 33, 7165-7172	5.5	28
88	Fundamental Measurements in Online Polymerization Reaction Monitoring and Control with a Focus on ACOMP. <i>Macromolecular Reaction Engineering</i> , 2010 , 4, 470-485	1.5	26
87	Online Monitoring of Copolymerization Involving Comonomers of Similar Spectral Characteristics. <i>Macromolecules</i> , 2006 , 39, 5705-5713	5.5	26
86	Monte Carlo test of electrostatic persistence length for short polymers. <i>Journal of Chemical Physics</i> , 1990 , 92, 6916-6926	3.9	26
85	Static Light Scattering from Mixtures of Polyelectrolytes in Low Ionic Strength Solutions. <i>Macromolecules</i> , 1996 , 29, 4293-4304	5.5	25
84	High osmotic stress behavior of hyaluronate and heparin. <i>Biopolymers</i> , 1992 , 32, 219-38	2.2	24
83	Light scattering power of randomly cut random coils with application to the determination of depolymerization rates. <i>Journal of Chemical Physics</i> , 1989 , 91, 7193-7199	3.9	24
82	Evolution of composition, molar mass, and conductivity during the free radical copolymerization of polyelectrolytes. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 8560-6	3.4	23
81	Polydopamine particles as nontoxic, blood compatible, antioxidant and drug delivery materials. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018 , 172, 618-626	6	23
80	Simultaneous Monitoring of Polymer and Particle Characteristics during Emulsion Polymerization. <i>Macromolecules</i> , 2008 , 41, 2406-2414	5.5	22
79	Online monitoring of polymerization reactions in inverse emulsions. <i>Langmuir</i> , 2006 , 22, 831-40	4	22
78	Quantitative Contrasts in the Copolymerization of Acrylate- and Methacrylate-Based Comonomers. <i>Macromolecules</i> , 2006 , 39, 8283-8292	5.5	22
77	Automatic Control of Polymer Molecular Weight during Synthesis. <i>Macromolecules</i> , 2016 , 49, 7170-7183	5.5	22

76	Predictive control and verification of conversion kinetics and polymer molecular weight in semi-batch free radical homopolymer reactions. <i>European Polymer Journal</i> , 2009 , 45, 2288-2303	5.2	21
75	Determination of Molecular Mass during Online Monitoring of Copolymerization Reactions. <i>Macromolecules</i> , 2007 , 40, 8040-8049	5.5	21
74	Kinetics and Molar Mass Evolution during Atom Transfer Radical Polymerization of n-Butyl Acrylate Using Automatic Continuous Online Monitoring. <i>Macromolecules</i> , 2005 , 38, 9556-9563	5.5	21
73	Predictive Control of Average Composition and Molecular Weight Distributions in Semibatch Free Radical Copolymerization Reactions. <i>Macromolecules</i> , 2009 , 42, 5558-5565	5.5	20
72	Online Polymerization Monitoring in a Continuous Reactor. <i>Macromolecular Chemistry and Physics</i> , 2002 , 203, 586-597	2.6	20
71	Simultaneous in-situ monitoring of parallel polymerization reactions using light scattering; a new tool for high-throughput screening. <i>ACS Combinatorial Science</i> , 2004 , 6, 710-6		19
70	New evidence of the nonequilibrium nature of the "slow modes" of diffusion in polyelectrolyte solutions. <i>Biopolymers</i> , 2000 , 53, 19-39	2.2	19
69	New characteristic signatures from time-dependent static light scattering during polymer depolymerization, with application to proteoglycan subunit degradation. <i>Biopolymers</i> , 1995 , 35, 435-450 ^{2.2}		19
68	Identifying protein aggregation mechanisms and quantifying aggregation rates from combined monomer depletion and continuous scattering. <i>Analytical Biochemistry</i> , 2016 , 511, 80-91	3.1	19
67	In Situ Time-Dependent Signatures of Light Scattered from Solutions undergoing Polymerization Reactions. <i>Macromolecules</i> , 2004 , 37, 2578-2587	5.5	18
66	Online Monitoring of Chain Transfer in Free-Radical Polymerization. <i>Macromolecular Chemistry and Physics</i> , 2001 , 202, 2518-2524	2.6	18
65	Monte Carlo study of light scattering by linear polyelectrolytes. <i>Journal of Chemical Physics</i> , 1992 , 97, 7766-7776	3.9	18
64	Characterization of stability, aggregation, and equilibrium properties of modified natural products; The case of carboxymethylated chitosans. <i>Materials Science and Engineering C</i> , 2010 , 30, 34-41	8.3	17
63	Effect of Valence and Chemical Species of Added Electrolyte on Polyelectrolyte Conformations and Interactions. <i>Macromolecules</i> , 2004 , 37, 554-565	5.5	17
62	Automatic, simultaneous determination of differential refractive index of a polymer and its corresponding monomer. <i>Journal of Applied Polymer Science</i> , 2000 , 77, 3259-3262	2.9	17
61	Random coil scission rates determined by time-dependent total intensity light scattering: hyaluronate depolymerization by hyaluronidase. <i>Biopolymers</i> , 1990 , 30, 1073-82	2.2	17
60	Kinetic Trends in RAFT Homopolymerization from Online Monitoring. <i>Macromolecules</i> , 2008 , 41, 332-338	5.5	16
59	Simultaneous multiple sample light scattering for analysis of polymer solutions. <i>Journal of Applied Polymer Science</i> , 2004 , 92, 2724-2732	2.9	16

58	Online Monitoring of the Final, Divergent Growth Phase in the Step-Growth Polymerization of Polyamines. <i>Macromolecules</i> , 2005 , 38, 1148-1158	5.5	15
57	Real-time monitoring of enzymatic hydrolysis of galactomannans. <i>Biopolymers</i> , 2001 , 59, 226-42	2.2	15
56	Online Monitoring of Ring-Opening Metathesis Polymerization of Cyclooctadiene and a Functionalized Norbornene. <i>Macromolecules</i> , 2007 , 40, 444-451	5.5	14
55	Combining On-Line Characterization Tools with Modern Software Environments for Optimal Operation of Polymerization Processes. <i>Processes</i> , 2016 , 4, 5	2.9	13
54	Simultaneous continuous, nonchromatographic monitoring and discrete chromatographic monitoring of polymerization reactions. <i>Journal of Applied Polymer Science</i> , 2009 , 113, 190-198	2.9	13
53	Online Monitoring of Molecular Weight and Other Characteristics during Semibatch Emulsion Polymerization under Monomer Starved and Flooded Conditions. <i>Macromolecules</i> , 2009 , 42, 8093-8101	5.5	13
52	Time-dependent light scattering from singly and multiply stranded linear polymers undergoing random and endwise scission. <i>Journal of Chemical Physics</i> , 1995 , 103, 7576-7584	3.9	13
51	Recent Advances in Automatic Continuous Online Monitoring of Polymerization Reactions (ACOMP). <i>Macromolecular Symposia</i> , 2008 , 271, 15-25	0.8	12
50	Online Monitoring of the Evolution of Polyelectrolyte Characteristics during Postpolymerization Modification Processes. <i>Macromolecules</i> , 2007 , 40, 4409-4413	5.5	12
49	Absolute online monitoring of acrylic acid polymerization and the effect of salt and pH on reaction kinetics. <i>Journal of Applied Polymer Science</i> , 2004 , 91, 1352-1359	2.9	12
48	An Error-in-Variables Method for Determining Reactivity Ratios by On-Line Monitoring of Copolymerization Reactions. <i>Macromolecular Theory and Simulations</i> , 2004 , 13, 162-168	1.5	12
47	Absolute online monitoring of a stepwise polymerization reaction: Polyurethane synthesis. <i>Journal of Applied Polymer Science</i> , 2001 , 82, 2070-2077	2.9	12
46	Heterogeneous Time Dependent Static Light Scattering. <i>Macromolecules</i> , 1999 , 32, 7055-7063	5.5	12
45	Online Optimal Feedback Control of Polymerization Reactors: Application to Polymerization of Acrylamide/Water/Potassium Persulfate (KPS) System. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 7322-7335	3.9	11
44	Experimental observation of crossover from noncondensed to counterion condensed regimes during free radical polyelectrolyte copolymerization under high-composition drift conditions. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 8303-9	3.4	11
43	Phase behavior of aqueous gelatin/oligosaccharide mixtures. <i>Biopolymers</i> , 1997 , 41, 607-622	2.2	10
42	Automatic Synthesis of Multimodal Polymers. <i>Macromolecular Reaction Engineering</i> , 2017 , 11, 1600072	1.5	9
41	Online, continuous monitoring of the sensitivity of the LCST of NIPAM-Am copolymers to discrete and broad composition distributions. <i>Polymer</i> , 2014 , 55, 4899-4907	3.9	9

40	Simultaneous multiple sample light scattering detection of LCST during copolymer synthesis. <i>Polymer</i> , 2011 , 52, 4825-4833	3.9	9
39	Continuous Monitoring of the Effect of Changing Solvent Conditions on Polyelectrolyte Conformations and Interactions. <i>International Journal of Polymer Analysis and Characterization</i> , 2002 , 7, 1-18	1.7	9
38	Coupled Multiangle Light-Scattering and Viscosimetric Detectors for Size Exclusion Chromatography with Application to Polyelectrolyte Characterization. <i>ACS Symposium Series</i> , 1996 , 7-34 ^{0.4}	0.4	9
37	Light-Scattering Results on Polyelectrolyte Conformations, Diffusion, and Interparticle Interactions and Correlations. <i>ACS Symposium Series</i> , 1993 , 297-314	0.4	9
36	Direct Monitoring of the Cross-Over from Diffusion-Controlled to Decomposition-Controlled Initiation in Free Radical Polymerization. <i>Macromolecular Chemistry and Physics</i> , 2008 , 209, 2463-2474	2.6	8
35	Low cost, interferometric differential refractometer. <i>American Journal of Physics</i> , 1993 , 61, 1046-1048	0.7	8
34	Effect of polydispersity and second virial coefficient on light scattering by randomly cut random coils. <i>Journal of Chemical Physics</i> , 1990 , 93, 9069-9076	3.9	8
33	Enhanced surfactant supramicellar assembly by hydrophobic dopants. <i>Langmuir</i> , 2013 , 29, 10376-82	4	7
32	Online monitoring of the copolymerization of 2-(dimethylamino)ethyl acrylate with styrene by RAFT. Deviations from reaction control. <i>Polymer</i> , 2010 , 51, 4726-4734	3.9	7
31	Automatic, simultaneous control of polymer composition and molecular weight during free radical copolymer synthesis. <i>Polymer</i> , 2018 , 136, 235-247	3.9	6
30	Anion binding to ubiquitin and its relevance to the Hofmeister effects. <i>Chemical Science</i> , 2020 , 12, 320-330	3.0	5
29	Direct Measurement of Chain Transfer during Controlled Radical Polymerization. <i>Macromolecules</i> , 2006 , 39, 8213-8215	5.5	4
28	Feature Article: Automatic Continuous Online Monitoring of Polymerization Reactions (ACOMP). <i>Polymer News</i> , 2004 , 29, 271-279		4
27	Monitoring kinetic processes in polymer solutions with time dependent static light scattering (TDSLS). <i>Macromolecular Symposia</i> , 2002 , 190, 131-150	0.8	4
26	Automated Continuous Online Monitoring of Polymerization Reactions (ACOMP) and Related Techniques 2000 , 1-40		3
25	Toxicity assessment of a novel oil dispersant based on silica nanoparticles using Fathead minnow. <i>Aquatic Toxicology</i> , 2020 , 229, 105653	5.1	3
24	On the Reproducibility of Early-Stage Thermally Induced and Contact-Stir-Induced Protein Aggregation. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 9361-9372	3.4	3
23	Simultaneous Monitoring of the Effects of Multiple Ionic Strengths on Properties of Copolymeric Polyelectrolytes during Their Synthesis. <i>Processes</i> , 2017 , 5, 17	2.9	2

22	Infrared (MIR, NIR), Raman, and Other Spectroscopic Methods 2014 , 107-134		2
21	Online Monitoring, Control, and Optimization of Polymer Reactions and Processes. <i>Macromolecular Reaction Engineering</i> , 2017 , 11, 1700030	1.5	2
20	Simultaneous Multiple Sample Light Scattering (SMSLS) for Continuous Monitoring of Protein Aggregation. <i>ACS Symposium Series</i> , 2015 , 159-188	0.4	2
19	Fundamentals of Static Light Scattering and Viscometry in Size-Exclusion Chromatography and Related Methods. <i>ACS Symposium Series</i> , 2004 , 13-51	0.4	2
18	Time-dependent processes in polyelectrolyte solutions. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1996 , 100, 685-695		2
17	Kinetic analysis of continuous reaction data for RAFT and free radical copolymerization with acrylic and styrenic monomers. <i>Polymer</i> , 2021 , 226, 123798	3.9	2
16	Automatic Continuous Online Monitoring and Control of Polymerization Reactions and Related Methods 2019 , 1-55		2
15	Coupling of NMR to ACOMP for Terpolymerization Monitoring and Control. <i>Macromolecular Reaction Engineering</i> , 2019 , 13, 1900039	1.5	2
14	Online monitoring of dopamine particle formation via continuous light scattering intensity measurement. <i>European Polymer Journal</i> , 2019 , 112, 749-753	5.2	1
13	Filtrodynamics: Time Dependent Trans-Filter Pressure Signals for Early Detection and Monitoring of Particulates During Chemical Processing. <i>Macromolecular Reaction Engineering</i> , 2014 , 8, 186-192	1.5	1
12	Angle-dependent effects in DLS measurements of polydisperse particles. <i>Measurement Science and Technology</i> , 2022 , 33, 045202	2	0
11	Background and Principles of Automatic Continuous Online Monitoring of Polymerization Reactions (ACOMP) 2014 , 229-245		
10	Applications of ACOMP (I) 2014 , 247-270		
9	Applications of ACOMP (II) 2014 , 271-294		
8	Cognate Techniques to ACOMP 2014 , 295-312		
7	Calorimetry, Conductivity, Densimetry, and Rheological Measurements 2014 , 135-150		
6	Rubbers and Elastomers 2014 , 409-425		
5	Polymeric Suppression of Dopant-Enhanced Surfactant Supramicellar Assemblies. <i>Macromolecular Chemistry and Physics</i> , 2015 , 216, 205-210	2.6	

4 Polymers from Natural Products **2014**, 427-450

3 Filtrodynamics 2: Effects of Particle Size and Filter Type on Trans-Filter Time-Dependent Pressure Signals. *Macromolecular Reaction Engineering*, **2014**, 8, 529-542

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2 Smart manufacturing enabled by continuous monitoring and control of polymer characteristics **2020**, 257-308

1 A polarization sensitive light scattering unit for high throughput screening. *Review of Scientific Instruments*, **2018**, 89, 113109

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