# Wayne F Reed

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 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 | Angle-dependent effects in DLS measurements of polydisperse particles. *Measurement Science and Technology*, **2022**, 33, 045202 | 2 | 0 |
| 110 | Kinetic analysis of continuous reaction data for RAFT and free radical copolymerization with acrylic and styrenic monomers. *Polymer*, **2021**, 226, 123798 | 3.9 | 2 |
| 109 | Smart manufacturing enabled by continuous monitoring and control of polymer characteristics **2020**, 257-308 | | |
| 108 | Toxicity assessment of a novel oil dispersant based on silica nanoparticles using Fathead minnow. *Aquatic Toxicology*, **2020**, 229, 105653 | 5.1 | 3 |
| 107 | Anion binding to ubiquitin and its relevance to the Hofmeister effects. *Chemical Science*, **2020**, 12, 320-330 | 9.4 | 5 |
| 106 | Online monitoring of dopamine particle formation via continuous light scattering intensity measurement. *European Polymer Journal*, **2019**, 112, 749-753 | 5.2 | 1 |
| 105 | Automatic Continuous Online Monitoring and Control of Polymerization Reactions and Related Methods **2019**, 1-55 | | 2 |
| 104 | Coupling of NMR to ACOMP for Terpolymerization Monitoring and Control. *Macromolecular Reaction Engineering*, **2019**, 13, 1900039 | 1.5 | 2 |
| 103 | Automatic, simultaneous control of polymer composition and molecular weight during free radical copolymer synthesis. *Polymer*, **2018**, 136, 235-247 | 3.9 | 6 |
| 102 | A polarization sensitive light scattering unit for high throughput screening. *Review of Scientific Instruments*, **2018**, 89, 113109 | 1.7 | |
| 101 | Polydopamine particles as nontoxic, blood compatible, antioxidant and drug delivery materials. *Colloids and Surfaces B: Biointerfaces*, **2018**, 172, 618-626 | 6 | 23 |
| 100 | On the Reproducibility of Early-Stage Thermally Induced and Contact-Stir-Induced Protein Aggregation. *Journal of Physical Chemistry B*, **2018**, 122, 9361-9372 | 3.4 | 3 |
| 99 | Online Optimal Feedback Control of Polymerization Reactors: Application to Polymerization of Acrylamide/Water/Potassium Persulfate (KPS) System. *Industrial & Engineering Chemistry Research*, **2017**, 56, 7322-7335 | 3.9 | 11 |
| 98 | Automatic Synthesis of Multimodal Polymers. *Macromolecular Reaction Engineering*, **2017**, 11, 1600072 | 1.5 | 9 |
| 97 | Simultaneous Monitoring of the Effects of Multiple Ionic Strengths on Properties of Copolymeric Polyelectrolytes during Their Synthesis. *Processes*, **2017**, 5, 17 | 2.9 | 2 |
| 96 | Online Monitoring, Control, and Optimization of Polymer Reactions and Processes. *Macromolecular Reaction Engineering*, **2017**, 11, 1700030 | 1.5 | 2 |
| 95 | Combining On-Line Characterization Tools with Modern Software Environments for Optimal Operation of Polymerization Processes. *Processes*, **2016**, 4, 5 | 2.9 | 13 |

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| 94 | Automatic Control of Polymer Molecular Weight during Synthesis. *Macromolecules*, **2016**, 49, 7170-7183 | 5.5 | 22 |
| 93 | Identifying protein aggregation mechanisms and quantifying aggregation rates from combined monomer depletion and continuous scattering. *Analytical Biochemistry*, **2016**, 511, 80-91 | 3.1 | 19 |
| 92 | Polymeric Suppression of Dopant-Enhanced Surfactant Supramicellar Assemblies. *Macromolecular Chemistry and Physics*, **2015**, 216, 205-210 | 2.6 | |
| 91 | Simultaneous Multiple Sample Light Scattering (SMSLS) for Continuous Monitoring of Protein Aggregation. *ACS Symposium Series*, **2015**, 159-188 | 0.4 | 2 |
| 90 | Online, continuous monitoring of the sensitivity of the LCST of NIPAM-Am copolymers to discrete and broad composition distributions. *Polymer*, **2014**, 55, 4899-4907 | 3.9 | 9 |
| 89 | Infrared (MIR, NIR), Raman, and Other Spectroscopic Methods **2014**, 107-134 | | 2 |
| 88 | Background and Principles of Automatic Continuous Online Monitoring of Polymerization Reactions (ACOMP) **2014**, 229-245 | | |
| 87 | Applications of ACOMP (I) **2014**, 247-270 | | |
| 86 | Applications of ACOMP (II) **2014**, 271-294 | | |
| 85 | Cognate Techniques to ACOMP **2014**, 295-312 | | |
| 84 | Calorimetry, Conductivity, Densimetry, and Rheological Measurements **2014**, 135-150 | | |
| 83 | Rubbers and Elastomers **2014**, 409-425 | | |
| 82 | Polymers from Natural Products **2014**, 427-450 | | |
| 81 | Filtrodynamics 2: Effects of Particle Size and Filter Type on Trans-Filter Time-Dependent Pressure Signals. *Macromolecular Reaction Engineering*, **2014**, 8, 529-542 | 1.5 | |
| 80 | Filtrodynamics: Time Dependent Trans-Filter Pressure Signals for Early Detection and Monitoring of Particulates During Chemical Processing. *Macromolecular Reaction Engineering*, **2014**, 8, 186-192 | 1.5 | 1 |
| 79 | Monitoring protein aggregation kinetics with simultaneous multiple sample light scattering. *Analytical Biochemistry*, **2013**, 437, 185-97 | 3.1 | 31 |
| 78 | Enhanced surfactant supramicellar assembly by hydrophobic dopants. *Langmuir*, **2013**, 29, 10376-82 | 4 | 7 |
| 77 | Simultaneous multiple sample light scattering detection of LCST during copolymer synthesis. *Polymer*, **2011**, 52, 4825-4833 | 3.9 | 9 |

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| 76 | Fundamental Measurements in Online Polymerization Reaction Monitoring and Control with a Focus on ACOMP. *Macromolecular Reaction Engineering*, **2010**, 4, 470-485 | 1.5 | 26 |
| 75 | Online monitoring of the copolymerization of 2-(dimethylamino)ethyl acrylate with styrene by RAFT. Deviations from reaction control. *Polymer*, **2010**, 51, 4726-4734 | 3.9 | 7 |
| 74 | Characterization of stability, aggregation, and equilibrium properties of modified natural products; The case of carboxymethylated chitosans. *Materials Science and Engineering C*, **2010**, 30, 34-41 | 8.3 | 17 |
| 73 | Simultaneous continuous, nonchromatographic monitoring and discrete chromatographic monitoring of polymerization reactions. *Journal of Applied Polymer Science*, **2009**, 113, 190-198 | 2.9 | 13 |
| 72 | Predictive control and verification of conversion kinetics and polymer molecular weight in semi-batch free radical homopolymer reactions. *European Polymer Journal*, **2009**, 45, 2288-2303 | 5.2 | 21 |
| 71 | Predictive Control of Average Composition and Molecular Weight Distributions in Semibatch Free Radical Copolymerization Reactions. *Macromolecules*, **2009**, 42, 5558-5565 | 5.5 | 20 |
| 70 | Experimental observation of crossover from noncondensed to counterion condensed regimes during free radical polyelectrolyte copolymerization under high-composition drift conditions. *Journal of Physical Chemistry B*, **2009**, 113, 8303-9 | 3.4 | 11 |
| 69 | Online Monitoring of Molecular Weight and Other Characteristics during Semibatch Emulsion Polymerization under Monomer Starved and Flooded Conditions. *Macromolecules*, **2009**, 42, 8093-8101 | 5.5 | 13 |
| 68 | Kinetic Trends in RAFT Homopolymerization from Online Monitoring. *Macromolecules*, **2008**, 41, 332-338 | 5.5 | 16 |
| 67 | Simultaneous Monitoring of Polymer and Particle Characteristics during Emulsion Polymerization. *Macromolecules*, **2008**, 41, 2406-2414 | 5.5 | 22 |
| 66 | Recent Advances in Automatic Continuous Online Monitoring of Polymerization Reactions (ACOMP). *Macromolecular Symposia*, **2008**, 271, 15-25 | 0.8 | 12 |
| 65 | Automatic continuous online monitoring of polymerization reactions (ACOMP). *Polymer International*, **2008**, 57, 390-396 | 3.3 | 28 |
| 64 | Direct Monitoring of the Cross-Over from Diffusion-Controlled to Decomposition-Controlled Initiation in Free Radical Polymerization. *Macromolecular Chemistry and Physics*, **2008**, 209, 2463-2474 | 2.6 | 8 |
| 63 | Determination of Molecular Mass during Online Monitoring of Copolymerization Reactions. *Macromolecules*, **2007**, 40, 8040-8049 | 5.5 | 21 |
| 62 | Evolution of composition, molar mass, and conductivity during the free radical copolymerization of polyelectrolytes. *Journal of Physical Chemistry B*, **2007**, 111, 8560-6 | 3.4 | 23 |
| 61 | Online Monitoring of the Evolution of Polyelectrolyte Characteristics during Postpolymerization Modification Processes. *Macromolecules*, **2007**, 40, 4409-4413 | 5.5 | 12 |
| 60 | Online Monitoring of Ring-Opening Metathesis Polymerization of Cyclooctadiene and a Functionalized Norbornene. *Macromolecules*, **2007**, 40, 444-451 | 5.5 | 14 |
| 59 | Online monitoring of polymerization reactions in inverse emulsions. *Langmuir*, **2006**, 22, 831-40 | 4 | 22 |

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| 58 | Direct Measurement of Chain Transfer during Controlled Radical Polymerization. *Macromolecules*, **2006**, 39, 8213-8215 | 5.5 | 4 |
| 57 | Online Monitoring of Copolymerization Involving Comonomers of Similar Spectral Characteristics. *Macromolecules*, **2006**, 39, 5705-5713 | 5.5 | 26 |
| 56 | Quantitative Contrasts in the Copolymerization of Acrylate- and Methacrylate-Based Comonomers. *Macromolecules*, **2006**, 39, 8283-8292 | 5.5 | 22 |
| 55 | Online Monitoring of the Final, Divergent Growth Phase in the Step-Growth Polymerization of Polyamines. *Macromolecules*, **2005**, 38, 1148-1158 | 5.5 | 15 |
| 54 | Kinetics and Molar Mass Evolution during Atom Transfer Radical Polymerization of n-Butyl Acrylate Using Automatic Continuous Online Monitoring. *Macromolecules*, **2005**, 38, 9556-9563 | 5.5 | 21 |
| 53 | Coupling of near infrared spectroscopy to automatic continuous online monitoring of polymerization reactions. *European Polymer Journal*, **2005**, 41, 535-545 | 5.2 | 29 |
| 52 | Absolute online monitoring of acrylic acid polymerization and the effect of salt and pH on reaction kinetics. *Journal of Applied Polymer Science*, **2004**, 91, 1352-1359 | 2.9 | 12 |
| 51 | Simultaneous multiple sample light scattering for analysis of polymer solutions. *Journal of Applied Polymer Science*, **2004**, 92, 2724-2732 | 2.9 | 16 |
| 50 | An Error-in-Variables Method for Determining Reactivity Ratios by On-Line Monitoring of Copolymerization Reactions. *Macromolecular Theory and Simulations*, **2004**, 13, 162-168 | 1.5 | 12 |
| 49 | Simultaneous in-situ monitoring of parallel polymerization reactions using light scattering; a new tool for high-throughput screening. *ACS Combinatorial Science*, **2004**, 6, 710-6 | | 19 |
| 48 | Feature Article: Automatic Continuous Online Monitoring of Polymerization Reactions (ACOMP). *Polymer News*, **2004**, 29, 271-279 | | 4 |
| 47 | Online Monitoring of Controlled Radical Polymerization: Nitroxide-Mediated Gradient Copolymerization. *Macromolecules*, **2004**, 37, 966-975 | 5.5 | 64 |
| 46 | Effect of Valence and Chemical Species of Added Electrolyte on Polyelectrolyte Conformations and Interactions. *Macromolecules*, **2004**, 37, 554-565 | 5.5 | 17 |
| 45 | In Situ Time-Dependent Signatures of Light Scattered from Solutions undergoing Polymerization Reactions. *Macromolecules*, **2004**, 37, 2578-2587 | 5.5 | 18 |
| 44 | Fundamentals of Static Light Scattering and Viscometry in Size-Exclusion Chromatography and Related Methods. *ACS Symposium Series*, **2004**, 13-51 | 0.4 | 2 |
| 43 | Online Polymerization Monitoring in a Continuous Reactor. *Macromolecular Chemistry and Physics*, **2002**, 203, 586-597 | 2.6 | 20 |
| 42 | Kinetics and molecular weight evolution during controlled radical polymerization. *Macromolecular Chemistry and Physics*, **2002**, 203, 2029-2041 | 2.6 | 44 |
| 41 | Continuous Monitoring of the Effect of Changing Solvent Conditions on Polyelectrolyte Conformations and Interactions. *International Journal of Polymer Analysis and Characterization*, **2002**, 7, 1-18 | 1.7 | 9 |

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|---|---|---|---|
| 40 | Monitoring kinetic processes in polymer solutions with time dependent static light scattering (TDSLS). *Macromolecular Symposia*, **2002**, 190, 131-150 | 0.8 | 4 |
| 39 | Electrostatically Enhanced Second and Third Virial Coefficients, Viscosity, and Interparticle Correlations for Linear Polyelectrolytes. *Macromolecules*, **2002**, 35, 5218-5227 | 5.5 | 34 |
| 38 | Electrostatic and Association Phenomena in Aggregates of Polymers and Micelles. *Langmuir*, **2002**, 18, 353-364 | 4 | 42 |
| 37 | Real-time monitoring of enzymatic hydrolysis of galactomannans. *Biopolymers*, **2001**, 59, 226-42 | 2.2 | 15 |
| 36 | Absolute online monitoring of a stepwise polymerization reaction: Polyurethane synthesis. *Journal of Applied Polymer Science*, **2001**, 82, 2070-2077 | 2.9 | 12 |
| 35 | Online Monitoring of Chain Transfer in Free-Radical Polymerization. *Macromolecular Chemistry and Physics*, **2001**, 202, 2518-2524 | 2.6 | 18 |
| 34 | Kinetics and Mechanisms of Acrylamide Polymerization from Absolute, Online Monitoring of Polymerization Reaction. *Macromolecules*, **2001**, 34, 1180-1191 | 5.5 | 84 |
| 33 | Automated Continuous Online Monitoring of Polymerization Reactions (ACOMP) and Related Techniques **2000**, 1-40 | | 3 |
| 32 | New evidence of the nonequilibrium nature of the "slow modes" of diffusion in polyelectrolyte solutions. *Biopolymers*, **2000**, 53, 19-39 | 2.2 | 19 |
| 31 | Automatic, simultaneous determination of differential refractive index of a polymer and its corresponding monomer. *Journal of Applied Polymer Science*, **2000**, 77, 3259-3262 | 2.9 | 17 |
| 30 | Dissolution kinetics of polymer powders. *AICHE Journal*, **2000**, 46, 1290-1299 | 3.6 | 31 |
| 29 | A Method for Online Monitoring of Polydispersity during Polymerization Reactions. *Macromolecules* , **2000**, 33, 7165-7172 | 5.5 | 28 |
| 28 | Automated batch characterization of polymer solutions by static light scattering and viscometry. *Journal of Applied Polymer Science*, **1999**, 73, 2359-2367 | 2.9 | 40 |
| 27 | Heterogeneous Time Dependent Static Light Scattering. *Macromolecules*, **1999**, 32, 7055-7063 | 5.5 | 12 |
| 26 | Absolute, On-Line Monitoring of Molar Mass during Polymerization Reactions. *Macromolecules*, **1998**, 31, 7226-7238 | 5.5 | 86 |
| 25 | Surfactant/Polymer Assemblies. 2. Polyelectrolyte Properties. *Macromolecules*, **1998**, 31, 2966-2971 | 5.5 | 34 |
| 24 | Surfactant/Polymer Assemblies. 1. Surfactant Binding Properties. *Macromolecules*, **1998**, 31, 2957-2965 | 5.5 | 54 |
| 23 | Comparison of On-line Single-Capillary and Bridge Capillary Viscometric Detectors for Size Exclusion Chromatography. *International Journal of Polymer Analysis and Characterization*, **1997**, 4, 99-132 | 17 | 42 |

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|---|---|---|---|
| 22 | Phase behavior of aqueous gelatin/oligosaccharide mixtures. *Biopolymers*, **1997**, 41, 607-622 | 2.2 | 10 |
| 21 | Static Light Scattering from Mixtures of Polyelectrolytes in Low Ionic Strength Solutions. *Macromolecules*, **1996**, 29, 4293-4304 | 5.5 | 25 |
| 20 | Coupled Multiangle Light-Scattering and Viscosimetric Detectors for Size Exclusion Chromatography with Application to Polyelectrolyte Characterization. *ACS Symposium Series*, **1996**, 7-34 | 0.4 | 9 |
| 19 | Time-dependent processes in polyelectrolyte solutions. *Zeitschrift Fur Elektrotechnik Und Elektrochemie*, **1996**, 100, 685-695 | | 2 |
| 18 | Time-dependent light scattering from singly and multiply stranded linear polymers undergoing random and endwise scission. *Journal of Chemical Physics*, **1995**, 103, 7576-7584 | 3.9 | 13 |
| 17 | Data evaluation for unified multi-detector size exclusion chromatography molar mass, viscosity and radius of gyration distributions. *Macromolecular Chemistry and Physics*, **1995**, 196, 1539-1575 | 2.6 | 38 |
| 16 | New characteristic signatures from time-dependent static light scattering during polymer depolymerization, with application to proteoglycan subunit degradation. *Biopolymers*, **1995**, 35, 435-450 | 2.2 | 19 |
| 15 | Low cost, interferometric differential refractometer. *American Journal of Physics*, **1993**, 61, 1046-1048 | 0.7 | 8 |
| 14 | Light-Scattering Results on Polyelectrolyte Conformations, Diffusion, and Interparticle Interactions and Correlations. *ACS Symposium Series*, **1993**, 297-314 | 0.4 | 9 |
| 13 | Monte Carlo study of titration of linear polyelectrolytes. *Journal of Chemical Physics*, **1992**, 96, 1609-1620 | 3.9 | 80 |
| 12 | Monte Carlo study of light scattering by linear polyelectrolytes. *Journal of Chemical Physics*, **1992**, 97, 7766-7776 | 3.9 | 18 |
| 11 | High osmotic stress behavior of hyaluronate and heparin. *Biopolymers*, **1992**, 32, 219-38 | 2.2 | 24 |
| 10 | Aggregates and other particles as the origin of the extraordinary diffusional phase in polyelectrolyte solutions. *Biopolymers*, **1992**, 32, 1105-1122 | 2.2 | 43 |
| 9 | Monte Carlo electrostatic persistence lengths compared with experiment and theory. *Journal of Chemical Physics*, **1991**, 94, 8479-8486 | 3.9 | 58 |
| 8 | Polyelectrolyte properties of proteoglycan monomers. *Journal of Chemical Physics*, **1991**, 94, 4568-4580 | 3.9 | 47 |
| 7 | Dependence of polyelectrolyte apparent persistence lengths, viscosity, and diffusion on ionic strength and linear charge density. *Macromolecules*, **1991**, 24, 6189-6198 | 5.5 | 98 |
| 6 | Random coil scission rates determined by time-dependent total intensity light scattering: hyaluronate depolymerization by hyaluronidase. *Biopolymers*, **1990**, 30, 1073-82 | 2.2 | 17 |
| 5 | Apparent persistence lengths and diffusion behavior of high molecular weight hyaluronate. *Biopolymers*, **1990**, 30, 1101-1112 | 2.2 | 86 |

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| 4 | Effect of polydispersity and second virial coefficient on light scattering by randomly cut random coils. *Journal of Chemical Physics*, **1990**, 93, 9069-9076 | 3.9 | 8 |
| 3 | Monte Carlo test of electrostatic persistence length for short polymers. *Journal of Chemical Physics*, **1990**, 92, 6916-6926 | 3.9 | 26 |
| 2 | Light scattering power of randomly cut random coils with application to the determination of depolymerization rates. *Journal of Chemical Physics*, **1989**, 91, 7193-7199 | 3.9 | 24 |
| 1 | The effects of pH on hyaluronate as observed by light scattering. *Biopolymers*, **1989**, 28, 1981-2000 | 2.2 | 34 |