Christopher B Whitehead

List of Publications by Year in Descending Order

10 papers	175 citations	7 h-index	10 g-index
10 ext. papers	237 ext. citations	6.5 avg, IF	4.1 L-index

#	Paper	IF	Citations
10	Estimating reaction parameters in mechanism-enabled population balance models of nanoparticle size distributions: A Bayesian inverse problem approach. *Journal of Computational Chemistry*, **2022**, 43, 43-56	3.5	2
9	Nanoparticle Formation Kinetics, Mechanisms, and Accurate Rate Constants: Examination of a Second-Generation Ir(0)n Particle Formation System by Five Monitoring Methods Plus Initial Mechanism-Enabled Population Balance Modeling. *Journal of Physical Chemistry C*, **2021**, 125, 13449-13476	3.8	4
8	LaMer's 1950 model of particle formation: a review and critical analysis of its classical nucleation and fluctuation theory basis, of competing models and mechanisms for phase-changes and particle formation, and then of its application to silver halide, semiconductor, metal, and metal-oxide nanoparticles. *Materials Advances*, **2021**, 2, 186-235	3.3	20
7	Particle Size Distributions via Mechanism-Enabled Population Balance Modeling. *Journal of Physical Chemistry C*, **2020**, 124, 4852-4880	3.8	19
6	Response to "Particle Size Is a Primary Determinant for Sigmoidal Kinetics of Nanoparticle Formation: A Disproof of the Finke-Watzky (F-W) Nanoparticle Nucleation and Growth Mechanism". *Chemistry of Materials*, **2020**, 32, 3657-3672	9.6	13
5	"Burst Nucleation" vs Autocatalytic, "Burst" Growth in Near-Monodisperse Particle-Formation Reactions. *Journal of Physical Chemistry C*, **2020**, 124, 24543-24554	3.8	8
4	LaMer's 1950 Model for Particle Formation of Instantaneous Nucleation and Diffusion-Controlled Growth: A Historical Look at the Model's Origins, Assumptions, Equations, and Underlying Sulfur Sol Formation Kinetics Data. *Chemistry of Materials*, **2019**, 31, 7116-7132	9.6	60
3	Mechanism-Enabled Population Balance Modeling of Particle Formation en Route to Particle Average Size and Size Distribution Understanding and Control. *Journal of the American Chemical Society*, **2019**, 141, 15827-15839	16.4	29
2	Nucleation Kinetics and Molecular Mechanism in Transition-Metal Nanoparticle Formation: The Intriguing, Informative Case of a Bimetallic Precursor, {[(1,5-COD)Ir]$_2$HPO$_4$]$_2$}$^{2-}$. *Chemistry of Materials*, **2019**, 31, 2848-2862	9.6	13
1	Particle formation mechanisms supported by in situ synchrotron XAFS and SAXS studies: a review of metal, metal-oxide, semiconductor and selected other nanoparticle formation reactions. *Materials Advances*,	3.3	7