

Christopher B Whitehead

List of Publications by Year in descending order

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Version: 2024-02-01

10
papers

327
citations

1162367

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1372195

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docs citations

10
times ranked

287
citing authors

#	ARTICLE	IF	CITATIONS
1	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. <i>Chemistry of Materials</i> , 2019, 31, 7116-7132.	3.2	111
2	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. <i>Materials Advances</i> , 2021, 2, 186-235.	2.6	58
3	Mechanism-Enabled Population Balance Modeling of Particle Formation en Route to Particle Average Size and Size Distribution Understanding and Control. <i>Journal of the American Chemical Society</i> , 2019, 141, 15827-15839.	6.6	48
4	Particle Size Distributions via Mechanism-Enabled Population Balance Modeling. <i>Journal of Physical Chemistry C</i> , 2020, 124, 4852-4880.	1.5	30
5	Nucleation Kinetics and Molecular Mechanism in Transition-Metal Nanoparticle Formation: The Intriguing, Informative Case of a Bimetallic Precursor, $\{[(1,5\text{-COD})\text{Ir}^{\text{sup}}]_2\text{HPO}_4\}_2$. <i>Chemistry of Materials</i> , 2019, 31, 2848-2862.	3.2	19
6	Particle formation mechanisms supported by <i>in situ</i> synchrotron XAFS and SAXS studies: a review of metal, metal-oxide, semiconductor and selected other nanoparticle formation reactions. <i>Materials Advances</i> , 2021, 2, 6532-6568.	2.6	18
7	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. <i>Chemistry of Materials</i> , 2020, 32, 3657-3672.	3.2	16
8	"Burst Nucleation" vs Autocatalytic, "Burst" Growth in Near-Monodisperse Particle-Formation Reactions. <i>Journal of Physical Chemistry C</i> , 2020, 124, 24543-24554.	1.5	15
9	Nanoparticle Formation Kinetics, Mechanisms, and Accurate Rate Constants: Examination of a Second-Generation Ir(O) _n Particle Formation System by Five Monitoring Methods Plus Initial Mechanism-Enabled Population Balance Modeling. <i>Journal of Physical Chemistry C</i> , 2021, 125, 13449-13476.	1.5	6
10	Estimating reaction parameters in mechanism-enabled population balance models of nanoparticle size distributions: A Bayesian inverse problem approach. <i>Journal of Computational Chemistry</i> , 2022, 43, 43-56.	1.5	6