Richard G Finke

List of Publications by Year
in descending order

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123
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times ranked

10408
citing authors

#	Article	IF	Citations
1	A review of the problem of distinguishing true homogeneous catalysis from soluble or other metal-particle heterogeneous catalysis under reducing conditions. Journal of Molecular Catalysis A, 2003, 198, 317-341.	4.8	1,134
2	A review of modern transition-metal nanoclusters: their synthesis, characterization, and applications in catalysis. Journal of Molecular Catalysis A, 1999, 145, 1-44.	4.8	852
3	Transition Metal Nanocluster Formation Kinetic and Mechanistic Studies. A New Mechanism When Hydrogen Is the Reductant:Â Slow, Continuous Nucleation and Fast Autocatalytic Surface Growth. Journal of the American Chemical Society, 1997, 119, 10382-10400.	6.6	834
4	Protein aggregation kinetics, mechanism, and curve-fitting: A review of the literature. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2009, 1794, 375-397.	1.1	572
5	Transition-metal nanocluster stabilization for catalysis: A critical review of ranking methods and putative stabilizers. Coordination Chemistry Reviews, 2007, 251, 1075-1100.	9.5	418
6	Electrocatalytic Water Oxidation Beginning with the Cobalt Polyoxometalate [Co₄(H₂O)₂(PW₉O₃₄)₂]^{10â€“}: Identification of Heterogeneous CoO_{<i>x</i>} as the Dominant Catalyst. Journal of the American Chemical Society, 2011, 133, 14872-14875.	6.6	394
7	Trivacant heteropolytungstate derivatives. 3. Rational syntheses, characterization, two-dimensional tungsten-183 NMR, and properties of tungstometallophosphates P2W18M4(H2O)2O6810- and P4W30M4(H2O)2O11216- (M = cobalt, copper, zinc). Inorganic Chemistry, 1987, 26, 3886-3896.	1.9	393
8	Nanocluster nucleation and growth kinetic and mechanistic studies: A review emphasizing transition-metal nanoclusters. Journal of Colloid and Interface Science, 2008, 317, 351-374.	5.0	329
9	Highly oxidation resistant inorganic-porphyrin analog polyoxometalate oxidation catalysts. 1. The synthesis and characterization of aqueous-soluble potassium salts of .alpha.2-P2W17O61(Mn+.cntdot.OH2)(n-10) and organic solvent soluble tetra-n-butylammonium salts of .alpha.2-P2W17O61(Mn+.cntdot.Br)(n-11) (M = Mn3+,Fe3+,Co2+,Ni2+,Cu2+). Journal of the American Chemical Society, 1991, 113, 7209-7221.	6.6	325
10	A More General Approach to Distinguishing "Homogeneous" from "Heterogeneous" Catalysis: Discovery of Polyoxoanion- and Bu4N+-Stabilized, Isolable and Redissolvable, High-Reactivity Ir.apprx.190-450 Nanocluster Catalysts. Inorganic Chemistry, 1994, 33, 4891-4910.	1.9	299
11	Nanocluster Formation and Stabilization Fundamental Studies:Â Ranking Commonly Employed Anionic Stabilizers via the Development, Then Application, of Five Comparative Criteria. Journal of the American Chemical Society, 2002, 124, 5796-5810.	6.6	283
12	Fitting Neurological Protein Aggregation Kinetic Data via a 2-Step, Minimal/â€œOckham's Razorâ€•Model:â€‰ The Finkeâˆ’Watzky Mechanism of Nucleation Followed by Autocatalytic Surface Growth. Biochemistry, 2008, 47, 2413-2427.	1.2	265
13	Thermolysis of the cobalt-carbon bond of adenosylcobalamin. 2. Products, kinetics, and cobalt-carbon bond dissociation energy in aqueous solution. Journal of the American Chemical Society, 1986, 108, 4820-4829.	6.6	242
14	Is It Homogeneous or Heterogeneous Catalysis? Identification of Bulk Ruthenium Metal as the True Catalyst in Benzene Hydrogenations Starting with the Monometallic Precursor, Ru(II)(Î·6-C6Me6)(OAc)2, Plus Kinetic Characterization of the Heterogeneous Nucleation, Then Autocatalytic Surface-Growth Mechanism of Metal Film Formation. Journal of the American Chemical Society, 2003, 125, 10301-10310.	6.6	236
15	Novel Polyoxoanion- and Bu4N+-Stabilized, Isolable, and Redissolvable, 20-30-.ANG. Ir300-900 Nanoclusters: The Kinetically Controlled Synthesis, Characterization, and Mechanism of Formation of Organic Solvent-Soluble, Reproducible Size, and Reproducible Catalytic Activity Metal Nanoclusters. Journal of the American Chemical Society, 1994, 116, 8335-8353.	6.6	233
16	Nanocluster Size-Control and â€œMagic Numberâ€•Investigations. Experimental Tests of the â€œLiving-Metal Polymerâ€•Concept and of Mechanism-Based Size-Control Predictions Leading to the Syntheses of Iridium(0) Nanoclusters Centering about Four Sequential Magic Numbersâ€. Chemistry of Materials, 1997, 9, 3083-3095.	3.2	210
17	A Mechanism for Transition-Metal Nanoparticle Self-Assembly. Journal of the American Chemical Society, 2005, 127, 8179-8184.	6.6	202
18	Distinguishing Homogeneous from Heterogeneous Water Oxidation Catalysis when Beginning with Polyoxometalates. ACS Catalysis, 2014, 4, 909-933.	5.5	195

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19	Rh(0) Nanoclusters in Benzene Hydrogenation Catalysis:â€‰ Kinetic and Mechanistic Evidence that a Putative [(C8H17)3NCH3]+[RhCl4]- Ion-Pair Catalyst Is Actually a Distribution of Cl- and [(C8H17)3NCH3]+ Stabilized Rh(0) Nanoclusters. Journal of the American Chemical Society, 1998, 120, 5653-5666.	6.6	188
20	A perspective on nanocluster catalysis: polyoxoanion and (n-C4H9)4N+ stabilized Ir(0)âˆ¼300 nanocluster â€˜soluble heterogeneous catalystsâ€™. Journal of Molecular Catalysis A, 1996, 114, 29-51.	4.8	157
21	Nanocluster Nucleation, Growth, and Then Agglomeration Kinetic and Mechanistic Studies:â€‰ A More General, Four-Step Mechanism Involving Double Autocatalysis. Chemistry of Materials, 2005, 17, 4925-4938.	3.2	154
22	Transition-Metal Nanocluster Size vs Formation Time and the Catalytically Effective Nucleus Number: A Mechanism-Based Treatment. Journal of the American Chemical Society, 2008, 130, 11959-11969.	6.6	153
23	Is It Homogeneous or Heterogeneous Catalysis Derived from [RhCp*Cl₂]₂?<i>In Operando</i>XAFS, Kinetic, and Crucial Kinetic Poisoning Evidence for Subnanometer Rh₄Cluster-Based Benzene Hydrogenation Catalysis. Journal of the American Chemical Society, 2011, 133, 18889-18902.	6.6	147
24	A review of the kinetics and mechanisms of formation of supported-nanoparticle heterogeneous catalysts. Journal of Molecular Catalysis A, 2012, 355, 1-38.	4.8	144
25	Additional Investigations of a New Kinetic Method To Follow Transition-Metal Nanocluster Formation, Including the Discovery of Heterolytic Hydrogen Activation in Nanocluster Nucleation Reactions. Chemistry of Materials, 2001, 13, 312-324.	3.2	138
26	Trivacant heteropolytungstate derivatives: the rational synthesis, characterization, and tungsten-183 NMR spectra of P2W18M4(H2O)2O6810- (M = cobalt,copper,zinc). Journal of the American Chemical Society, 1981, 103, 1587-1589.	6.6	132
27	Nanocluster Formation Synthetic, Kinetic, and Mechanistic Studies.â€The Detection of, and Then Methods To Avoid, Hydrogen Mass-Transfer Limitations in the Synthesis of Polyoxoanion- and Tetrabutylammonium-Stabilized, Near-Monodisperse 40 Â± 6 Ã… Rh(0) Nanoclusters. Journal of the American Chemical Society, 1998, 120, 9545-9554.	6.6	127
28	Water Oxidation Catalysis Beginning with 2.5 Î¼M [Co₄(H₂O)₂(PW₉O₃₄)₂]^{10â€“}: Investigation of the True Electrochemically Driven Catalyst at â‰¥600 mV Overpotential at a Glassy Carbon Electrode. ACS Catalysis, 2013, 3, 1209-1219.	5.5	124
29	An All-Inorganic, Polyoxometalate-Based Catechol Dioxygenase That Exhibits >100â€‰000 Catalytic Turnovers. Journal of the American Chemical Society, 1999, 121, 9831-9842.	6.6	123
30	Is It Homogeneous or Heterogeneous Catalysis? Compelling Evidence for Both Types of Catalysts Derived from [Rh(Î·5-C5Me5)Cl2]2as a Function of Temperature and Hydrogen Pressure. Journal of the American Chemical Society, 2005, 127, 4423-4432.	6.6	123
31	Is There a Minimal Chemical Mechanism Underlying Classical Avrami-Erofeâ€™ev Treatments of Phase-Transformation Kinetic Data?. Chemistry of Materials, 2009, 21, 4692-4705.	3.2	122
32	Supramolecular Triruthenium Cluster-Based Benzene Hydrogenation Catalysis:Â Fact or Fiction?. Organometallics, 2005, 24, 1819-1831.	1.1	117
33	LaMerâ€™s 1950 Model for Particle Formation of Instantaneous Nucleation and Diffusion-Controlled Growth: A Historical Look at the Modelâ€™s Origins, Assumptions, Equations, and Underlying Sulfur Sol Formation Kinetics Data. Chemistry of Materials, 2019, 31, 7116-7132.	3.2	111
34	Trisubstituted heteropolytungstates as soluble metal oxide analogues. 4. The synthesis and characterization of organic solvent-soluble (Bu4N)12H4P4W30Nb6O123 and (Bu4N)9P2W15Nb3O62 and solution spectroscopic and other evidence for the supported organometallic derivatives (Bu4N)7[(C5Me5)Rh.cntdot.P2W15Nb3O62] and (Bu4N)7[(C6H6)Ru.cntdot.P2W15Nb3O62]. Organometallics, 1988, 7, 1692-1704.	1.1	110
35	Visible-Light-Assisted Photoelectrochemical Water Oxidation by Thin Films of a Phosphonate-Functionalized Perylene Diimide Plus CoO_{<i>x</i>} Cocatalyst. ACS Applied Materials & Interfaces, 2014, 6, 13367-13377.	4.0	108
36	Polyoxoanion-Supported Catalyst Precursors. Synthesis and Characterization of the Iridium(I) and Rhodium(I) Precatalysts [(n-C4H9)4N]5Na3[(1,5-COD)M.cntdot.P2W15Nb3O62] (M = Ir, Rh). Inorganic Chemistry, 1995, 34, 1413-1429.	1.9	107

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37	Sigmoidal Nucleation and Growth Curves Across Nature Fit by the Finkeâ€“Watzky Model of Slow Continuous Nucleation and Autocatalytic Growth: Explicit Formulas for the Lag and Growth Times Plus Other Key Insights. Journal of Physical Chemistry C, 2017, 121, 5302-5312.	1.5	105
38	Nanoclusters in Catalysis:Â A Comparison of CS2Catalyst Poisoning of Polyoxoanion- and Tetrabutylammonium-Stabilized 40 Â± 6 Ã… Rh(0) Nanoclusters to 5 Rh/Al2O3, Including an Analysis of the Literature Related to the CS2to Metal Stoichiometry Issue. Inorganic Chemistry, 2002, 41, 1625-1638.	1.9	104
39	Synthetic and mechanistic studies of the reduction of .alpha.,.beta.-unsaturated carbonyl compounds by the binuclear cluster, sodium hydrogen octacarbonyldiferrate. Journal of the American Chemical Society, 1978, 100, 1119-1140.	6.6	103
40	Effects of paramagnetic and diamagnetic transition-metal monosubstitutions on tungsten-183 and phosphorus-31 NMR spectra for Keggin and Wells-Dawson heteropolytungstate derivatives. Correlations and corrections. Tungsten-183 NMR two-dimensional INADEQUATE studies of .alpha.-[(D2O)ZnO4Xn+W11O34](10-n)- wherein Xn+ = Si4+ and P5+. Journal of the American Chemical Society, 1987, 109, 7402-7408.	6.6	103
41	Polyoxometalate Catalyst Precursors. Improved Synthesis, H+-Titration Procedure, and Evidence for31P NMR as a Highly Sensitive Support-Site Indicator for the Prototype Polyoxoanionâˆ’Organometallic-Support System [(n-C4H9)4N]9P2W15Nb3O62. Inorganic Chemistry, 1996, 35, 7905-7913.	1.9	88
42	Nanocluster Formation and Stabilization Fundamental Studies: Investigating â€œSolvent-Onlyâ€• Stabilization En Route to Discovering Stabilization by the Traditionally Weakly Coordinating Anion BF4- Plus High Dielectric Constant Solvents. Inorganic Chemistry, 2006, 45, 8382-8393.	1.9	88
43	Molecular insights for how preferred oxoanions bind to and stabilize transition-metal nanoclusters: a tridentate, C3 symmetry, lattice size-matching binding model. Coordination Chemistry Reviews, 2004, 248, 135-146.	9.5	87
44	Water-oxidation photoanodes using organic light-harvesting materials: a review. Journal of Materials Chemistry A, 2017, 5, 19560-19592.	5.2	87
45	The Four-Step, Double-Autocatalytic Mechanism for Transition-Metal Nanocluster Nucleation, Growth, and Then Agglomeration: Metal, Ligand, Concentration, Temperature, and Solvent Dependency Studies. Chemistry of Materials, 2008, 20, 1956-1970.	3.2	85
46	Transition-Metal Nanocluster Kinetic and Mechanistic Studies Emphasizing Nanocluster Agglomeration:â€‰ Demonstration of a Kinetic Method That Allows Monitoring of All Three Phases of Nanocluster Formation and Aging. Chemistry of Materials, 2004, 16, 139-150.	3.2	83
47	Polyoxoanion- and Tetrabutylammonium-Stabilized, Near-Monodisperse, 40 Â± 6 Ã… Rh(0)âˆ¼1500 to Rh(0)âˆ¼3700 Nanoclusters:â€‰ Synthesis, Characterization, and Hydrogenation Catalysis. Chemistry of Materials, 1999, 11, 1035-1047.	3.2	82
48	Iridium(0) Nanocluster, Acid-Assisted Catalysis of Neat Acetone Hydrogenation at Room Temperature:Â Exceptional Activity, Catalyst Lifetime, and Selectivity at Complete Conversion. Journal of the American Chemical Society, 2005, 127, 4800-4808.	6.6	79
49	Fitting Yeast and Mammalian Prion Aggregation Kinetic Data with the Finkeâˆ’Watzky Two-Step Model of Nucleation and Autocatalytic Growth. Biochemistry, 2008, 47, 10790-10800.	1.2	79
50	Water Oxidation Catalysis Beginning with Co₄(H₂O)₂(PW₉O₃₄)₂^{10â€“} When Driven by the Chemical Oxidant Ruthenium(III)tris(2,2â€²-bipyridine): Stoichiometry, Kinetic, and Mechanistic Studies en Route to Identifying the True Catalyst. ACS Catalysis, 2014, 4, 79-89.	5.5	74
51	Transition-Metal Nanocluster Stabilization Fundamental Studies:â€‰ Hydrogen Phosphate as a Simple, Effective, Readily Available, Robust, and Previously Unappreciated Stabilizer for Well-Formed, Isolable, and Redissolvable Ir(0) and Other Transition-Metal Nanoclusters. Langmuir, 2003, 19, 6247-6260.	1.6	72
52	Î±-Synuclein aggregation variable temperature and variable pH kinetic data: A re-analysis using the Finkeâ€“Watzky 2-step model of nucleation and autocatalytic growth. Biophysical Chemistry, 2009, 140, 9-15.	1.5	70
53	Agglomerative Sintering of an Atomically Dispersed Ir₁/Zeolite Y Catalyst: Compelling Evidence Against Ostwald Ripening but for Bimolecular and Autocatalytic Agglomeration Catalyst Sintering Steps. ACS Catalysis, 2015, 5, 3514-3527.	5.5	66
54	Electrochemically Driven Water-Oxidation Catalysis Beginning with Six Exemplary Cobalt Polyoxometalates: Is It Molecular, Homogeneous Catalysis or Electrode-Bound, Heterogeneous CoO_{<i>x</i>}Catalysis?. Journal of the American Chemical Society, 2018, 140, 12040-12055.	6.6	63

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55	Nucleation is Second Order: An Apparent Kinetically Effective Nucleus of Two for Ir(0)_{<i>n</i>} Nanoparticle Formation from [(1,5-COD)Ir^IÂ·P₂W₁₅Nb₃O₆₂]^{8â€“} Plus Hydrogen. Journal of the American Chemical Society, 2014, 136, 17601-17615.	6.6	62
56	In Situ Formed â€œWeakly Ligated/Labile Ligandâ€•Iridium(0) Nanoparticles and Aggregates as Catalysts for the Complete Hydrogenation of Neat Benzene at Room Temperature and Mild Pressures. Langmuir, 2010, 26, 12455-12464.	1.6	61
57	Nanocluster Formation and Stabilization Fundamental Studies. 2. Proton Sponge as an Effective H+Scavenger and Expansion of the Anion Stabilization Ability Series. Langmuir, 2002, 18, 7653-7662.	1.6	58
58	Monitoring Supported-Nanocluster Heterogeneous Catalyst Formation: Product and Kinetic Evidence for a 2-Step, Nucleation and Autocatalytic Growth Mechanism of Pt(0)_nFormation from H₂PtCl₆on Al₂O₃or TiO₂. Journal of the American Chemical Society, 2009, 131, 6389-6396.	6.6	58
59	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.	2.6	58
60	Fitting and Interpreting Transition-Metal Nanocluster Formation and Other Sigmoidal-Appearing Kinetic Data: A More Thorough Testing of Dispersive Kinetic vs Chemical-Mechanism-Based Equations and Treatments for 4-Step Type Kinetic Data. Chemistry of Materials, 2009, 21, 4468-4479.	3.2	56
61	Development Plus Kinetic and Mechanistic Studies of a Prototype Supported-Nanoparticle Heterogeneous Catalyst Formation System in Contact with Solution: Ir(1,5-COD)Cl/Î³-Al2O3and Its Reduction by H2to Ir(0)n/Î³-Al2O3. Journal of the American Chemical Society, 2010, 132, 9701-9714.	6.6	54
62	Electrochemical Water Oxidation Catalysis Beginning with Co(II) Polyoxometalates: The Case of the Precatalyst Co₄V₂W₁₈O₆₈^{10â€“}. ACS Catalysis, 2017, 7, 7-16.	5.5	54
63	Quantitative 1,10-Phenanthroline Catalyst-Poisoning Kinetic Studies of Rh(0) Nanoparticle and Rh₄ Cluster Benzene Hydrogenation Catalysts: Estimates of the Poison <i>K</i>_{association} Binding Constants, of the Equivalents of Poison Bound and of the Number of Catalytically Active Sites for Each Catalyst. ACS Catalysis, 2012, 2, 1967-1975.	5.5	53
64	A Four-Step Mechanism for the Formation of Supported-Nanoparticle Heterogenous Catalysts in Contact with Solution: The Conversion of Ir(1,5-COD)Cl/Î³-Al₂O₃ to Ir(0)_{â^¼170}/Î³-Al₂O₃. Journal of the American Chemical Society, 2014, 136, 1930-1941.	6.6	48
65	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.	6.6	48
66	Oxygenation Catalysis by All-Inorganic, Oxidation-Resistant, Dawson-Type Polyoxoanion-Supported Transition Metal Precatalysts, [(CH3CN)xM]n+ Plus P2W15Nb3O629- (M = MnII, FeII, CoII, NiII, CuI, CuII,) Tj ETQq0 0 0 rgBT /Overlock 1	1.9	47
67	Mononuclear Zeolite-Supported Iridium: Kinetic, Spectroscopic, Electron Microscopic, and Size-Selective Poisoning Evidence for an Atomically Dispersed True Catalyst at 22 Â°C. ACS Catalysis, 2012, 2, 1947-1957.	5.5	47
68	Nanoparticle Nucleation Is Termolecular in Metal and Involves Hydrogen: Evidence for a Kinetically Effective Nucleus of Three {Ir3H2xÂ·P2W15Nb3O62}6â€“ in Ir(0)n Nanoparticle Formation From [(1,5-COD)IrIÂ·P2W15Nb3O62]8â€“ Plus Dihydrogen. Journal of the American Chemical Society, 2017, 139, 5444-5457.	6.6	46
69	The solid-state rearrangement of the Wells-Dawson K6P2W18O62ï¿½10H2O to a stable Keggin-type heteropolyanion phase: a catalyst for the selective oxidation of isobutane to isobutene. Catalysis Letters, 1996, 36, 75-79.	1.4	43
70	Kinetic and Mechanistic Studies of Vanadium-Based, Extended Catalytic Lifetime Catechol Dioxygenases. Journal of the American Chemical Society, 2005, 127, 13988-13996.	6.6	42
71	Gold Nanocluster Agglomeration Kinetic Studies: Evidence for Parallel Bimolecular Plus Autocatalytic Agglomeration Pathways as a Mechanism-Based Alternative to an Avrami-Based Analysis. Chemistry of Materials, 2012, 24, 1718-1725.	3.2	42
72	Sensitization of Nanocrystalline Metal Oxides with a Phosphonate-Functionalized Perylene Diimide for Photoelectrochemical Water Oxidation with a CoO_{<i>x</i>} Catalyst. ACS Applied Materials & Interfaces, 2017, 9, 27625-27637.	4.0	40

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73	A Test of the Transition-Metal Nanocluster Formation and Stabilization Ability of the Most Common Polymeric Stabilizer, Poly(vinylpyrrolidone), as Well as Four Other Polymeric Protectantsâ€. Langmuir, 2006, 22, 9357-9367.	1.6	39
74	Platinum-Catalyzed Phenyl and Methyl Group Transfer from Tin to Iridium:Â Evidence for an Autocatalytic Reaction Pathway with an Unusual Preference for Methyl Transfer. Journal of the American Chemical Society, 2008, 130, 1839-1841.	6.6	36
75	Transition-Metal Nanocluster Catalysts:ÂScaled-upSynthesis, Characterization, Storage Conditions, Stability, and Catalytic Activity before and after Storage of Polyoxoanion- and Tetrabutylammonium-Stabilized Ir(0) Nanoclusters. Chemistry of Materials, 2003, 15, 899-909.	3.2	33
76	Supported-Nanoparticle Heterogeneous Catalyst Formation in Contact with Solution: Kinetics and Proposed Mechanism for the Conversion of Ir(1,5-COD)Cl/Î³-Al₂O₃to Ir(0)_{â^¼900}/Î³-Al₂O₃. Journal of the American Chemical Society, 2011, 133, 7744-7756.	6.6	32
77	Palladium(0) Nanoparticle Formation, Stabilization, and Mechanistic Studies: Pd(acac)₂ as a Preferred Precursor, [Bu₄N]₂HPO₄ Stabilizer, plus the Stoichiometry, Kinetics, and Minimal, Four-Step Mechanism of the Palladium Nanoparticle Formation and Subsequent Agglomeration Reactions. Langmuir, 2016, 32, 3699-3716.	1.6	32
78	Transition-Metal Nanocluster Stabilization versus Agglomeration Fundamental Studies: Measurement of the Two Types of Rate Constants for Agglomeration Plus Their Activation Parameters under Catalytic Conditions. Chemistry of Materials, 2008, 20, 2592-2601.	3.2	31
79	Particle Size Distributions via Mechanism-Enabled Population Balance Modeling. Journal of Physical Chemistry C, 2020, 124, 4852-4880.	1.5	30
80	Silver Nanoparticles Synthesized by Microwave Heating: A Kinetic and Mechanistic Re-Analysis and Re-Interpretation. Journal of Physical Chemistry C, 2017, 121, 27643-27654.	1.5	29
81	Determination of the Dominant Catalyst Derived from the Classic [RhCp*Cl₂]₂ Precatalyst System: Is it Single-Metal Rh₁Cp*-Based, Subnanometer Rh₄ Cluster-Based, or Rh(0)<i>_n</i> Nanoparticle-Based Cyclohexene Hydrogenation Catalysis at Room Temperature and Mild Pressures?. ACS Catalysis, 2015, 5, 3876-3886.	5.5	28
82	Unintuitive Inverse Dependence of the Apparent Turnover Frequency on Precatalyst Concentration: A Quantitative Explanation in the Case of Ziegler-Type Nanoparticle Catalysts Made from [(1,5-COD)Ir(Î¼-O₂C₈H₁₅)]₂ and AlEt₃. ACS Catalysis, 2015, 5, 3342-3353.	5.5	27
83	Autoxidation-Product-Initiated Dioxygenases:Â Vanadium-Based, Record Catalytic Lifetime Catechol Dioxygenase Catalysis. Inorganic Chemistry, 2005, 44, 8521-8530.	1.9	26
84	Dust Effects on Nucleation Kinetics and Nanoparticle Product Size Distributions: Illustrative Case Study of a Prototype Ir(0)_{<i>n</i>} Transition-Metal Nanoparticle Formation System. Langmuir, 2017, 33, 6550-6562.	1.6	24
85	Gold Nanoparticle Formation Kinetics and Mechanism: A Critical Analysis of the â€œRedox Crystallizationâ€•Mechanism. ACS Omega, 2018, 3, 1555-1563.	1.6	23
86	Stereospecific Polymerization of Chiral Oxazolidinone-Functionalized Alkenes. Macromolecules, 2010, 43, 7504-7514.	2.2	22
87	The Second Isolable B12-Thiolate Complex, (Pentafluorophenylthiolato)cobalamin:Â Synthesis and Characterization. Inorganic Chemistry, 1998, 37, 5109-5116.	1.9	21
88	Metal Complexes of the Lacunary Heteropolytungstates [B-Î±-PW9O34]9-and [Î±-P2W15O56]12-. Inorganic Syntheses, 2007, , 167-185.	0.3	20
89	Cobalt Polyoxometalate Co₄V₂W₁₈O₆₈^{10â€“}: A Critical Investigation of Its Synthesis, Purity, and Observed ⁵¹V Quadrupolar NMR. Inorganic Chemistry, 2016, 55, 5343-5355.	1.9	19
90	Nucleation Kinetics and Molecular Mechanism in Transition-Metal Nanoparticle Formation: The Intriguing, Informative Case of a Bimetallic Precursor, {[(1,5-COD)Ir^IÂ·HPO₄]₂}^{2â€“}. Chemistry of Materials, 2019, 31, 2848-2862.	3.2	19

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91	Polyoxoanion-Supported, Atomically Dispersed Iridium(I) and Rhodium(I): Na3 [(C4 H9)4 N]5 [Ir[Î±-Nb3 P2 W15 O62]{Î· 4 -C8 H12 }] and Na3 [(C4 H9)4 N]5 [Rh[Î±-Nb3 P2 W15 O62]{Î· 4 -C8 H12 }]. Inorganic Syntheses, 2007, , 186-201.	0.3	18
92	Copper ion vs copper metalâ€“organic framework catalyzed NO release from bioavailable S-Nitrosoglutathione en route to biomedical applications: Direct 1H NMR monitoring in water allowing identification of the distinct, true reaction stoichiometries and thiol dependencies. Journal of Inorganic Biochemistry, 2019, 199, 110760.	1.5	18
93	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. Materials Advances, 2021, 2, 6532-6568.	2.6	18
94	Synthesis and Characterization of [Ir(1,5-Cyclooctadiene)(Î¼-H)]₄: A Tetrametallic Ir₄H₄-Core, Coordinatively Unsaturated Cluster. Inorganic Chemistry, 2012, 51, 3186-3193.	1.9	17
95	Triniobium, Wellsâ€“Dawson-Type Polyoxoanion, [(<i>n</i>-C₄H₉)₄N]₉P₂W₁₅Nb₃O<sub> Improvements in the Synthesis, Its Reliability, the Purity of the Product, and the Detailed Synthetic Procedure. Inorganic Chemistry, 2014, 53, 2666-2676.	1.9	17
96	Copper Metalâ€“Organic Framework Surface Catalysis: Catalyst Poisoning, IR Spectroscopic, and Kinetic Evidence Addressing the Nature and Number of the Catalytically Active Sites En Route to Improved Applications. ACS Applied Materials & Interfaces, 2020, 12, 39043-39055.	4.0	17
97	Supersensitivity of Transition-Metal Nanoparticle Formation to Initial Precursor Concentration and Reaction Temperature: Understanding Its Origins. Journal of Nanoscience and Nanotechnology, 2008, 8, 1551-1556.	0.9	16
98	Kinetic Evidence for Bimolecular Nucleation in Supported-Transition-Metal-Nanoparticle Catalyst Formation in Contact with Solution: The Prototype Ir(1,5-COD)Cl/Î³-Al2O3 to Ir(0)âˆ¼900/Î³-Al2O3 System. ACS Catalysis, 2012, 2, 298-305.	5.5	16
99	Response to â€œParticle Size Is a Primary Determinant for Sigmoidal Kinetics of Nanoparticle Formation: A â€œDisproofâ€•of the Finkeâ€“Watzky (F-W) Nanoparticle Nucleation and Growth Mechanismâ€ Chemistry of Materials, 2020, 32, 3657-3672.	3.2	16
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101	Hydrocarbon-Soluble, Isolable Ziegler-Type Ir(0)_{<i>n</i>} Nanoparticle Catalysts Made from [(1,5-COD)Ir(Î¼-O₂C₈H₁₅)]₂ and 2â€“5 Equivalents of AlEt₃: Their High Catalytic Activity, Long Lifetime, and AlEt₃-Dependent, Exceptional, 200 Â°C Thermal Stability. ACS Catalysis, 2012, 2, 632-641.	5.5	14
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