

Ka Ming Ng

List of Publications by Year in descending order

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134
papers

3,829
citations

126907

33
h-index

161849

54
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138
all docs

138
docs citations

138
times ranked

3431
citing authors

#	ARTICLE	IF	CITATIONS
1	Facile one-pot synthesis of bimodal-sized nickel nanoparticles in a solvent-directed reaction system. Journal of Nanoparticle Research, 2022, 24, .	1.9	1
2	Conceptual design of chemical devices. Journal of Advanced Manufacturing and Processing, 2021, 3, .	2.4	1
3	Optimization-based cosmetic formulation: Integration of mechanistic model, surrogate model, and heuristics. AIChE Journal, 2021, 67, .	3.6	11
4	Dual-reductant synthesis of nickel nanoparticles for use in screen-printing conductive paste. Journal of Nanoparticle Research, 2021, 23, 1.	1.9	12
5	A new route for fast synthesis of copper nanowires and application on flexible transparent conductive films. Journal of Nanoparticle Research, 2021, 23, 1.	1.9	4
6	Formulation of a paste for copper thick film. Journal of Nanoparticle Research, 2021, 23, 1.	1.9	7
7	Computational design of structured chemical products. Frontiers of Chemical Science and Engineering, 2021, 15, 1033-1049.	4.4	0
8	Computer-Aided Design of a Perfluorinated Sulfonic Acid Proton Exchange Membrane Using Stochastic Optimization and Molecular Dynamic Method. Industrial & Engineering Chemistry Research, 2021, 60, 18045-18057.	3.7	5
9	Product design: An optimization-based approach for targeting of particulate composite microstructure. Computers and Chemical Engineering, 2020, 140, 106975.	3.8	2
10	Sustainable product design: A life-cycle approach. Chemical Engineering Science, 2020, 217, 115508.	3.8	27
11	Product design: Formulation of a screen-printable sintering-type conductive paste. AIChE Journal, 2020, 66, e16272.	3.6	3
12	Food Product Design: A Hybrid Machine Learning and Mechanistic Modeling Approach. Industrial & Engineering Chemistry Research, 2019, 58, 16743-16752.	3.7	33
13	Computer-Aided Polymer Design: Integrating Group Contribution and Molecular Dynamics. Industrial & Engineering Chemistry Research, 2019, 58, 15542-15552.	3.7	22
14	CoO/CoFe ₂ O ₄ core/shell nanoparticles assembled in carbon sheets as anode materials for lithium ion battery. Journal of Alloys and Compounds, 2019, 808, 151691.	5.5	27
15	Product Design: Enzymatic Biosensors for Body Fluid Analysis. Industrial & Engineering Chemistry Research, 2019, 58, 14284-14294.	3.7	7
16	Process Synthesis: Selective Recovery of Lithium from Lithium-Ion Battery Cathode Materials. Industrial & Engineering Chemistry Research, 2019, 58, 3118-3130.	3.7	32
17	Li ₇ La ₃ Zr ₂ O ₁₂ ceramic nanofiber-incorporated composite polymer electrolytes for lithium metal batteries. Journal of Materials Chemistry A, 2019, 7, 3391-3398.	10.3	178
18	Separation of Ni, Co, and Mn from Spent Li _{0.5} Mn _{0.3} Co _{0.2} O ₂ Cathode Materials by Ammonia Dissolution. ACS Sustainable Chemistry and Engineering, 2019, 7, 12718-12725.	6.7	34

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19	Hydrometallurgy process for the recovery of valuable metals from LiNi _{0.8} Co _{0.15} Al _{0.05} O ₂ cathode materials. <i>SN Applied Sciences</i> , 2019, 1, 1.	2.9	2
20	Product design: Incorporating make-or-buy analysis and supplier selection. <i>Chemical Engineering Science</i> , 2019, 202, 357-372.	3.8	9
21	Facile synthesis of nearly monodisperse AgCu alloy nanoparticles with synergistic effect against oxidation and electromigration. <i>Journal of Materials Research</i> , 2019, 34, 2095-2104.	2.6	19
22	Chemical product design: Advances in and proposed directions for research and teaching. <i>Computers and Chemical Engineering</i> , 2019, 126, 147-156.	3.8	32
23	Crystallographically textured SnSe nanomaterials produced from the liquid phase sintering of nanocrystals. <i>Dalton Transactions</i> , 2019, 48, 3641-3647.	3.3	16
24	Critical role of nano-inclusions in silver selenide nanocomposites as a promising room temperature thermoelectric material. <i>Journal of Materials Chemistry C</i> , 2019, 7, 2646-2652.	5.5	47
25	A fluorescent nanoparticle probe based on sugar-substituted tetraphenylethene for label-free detection of galectin-3. <i>Journal of Materials Chemistry B</i> , 2019, 7, 6737-6741.	5.8	4
26	An Integrated Approach for the Design of Emulsified Products. <i>AIChE Journal</i> , 2019, 65, 75-86.	3.6	15
27	Product design: A pricing framework accounting for product quality and consumer awareness. <i>AIChE Journal</i> , 2018, 64, 2462-2471.	3.6	13
28	Synthesis of highly dispersible IZO and ITO nanocrystals for the fabrication of transparent nanocomposites in UV- and near IR-blocking. <i>Journal of Nanoparticle Research</i> , 2018, 20, 1.	1.9	7
29	Crystallographically Textured Nanomaterials Produced from the Liquid Phase Sintering of Bi ₂ Sb ₂ Te ₃ Nanocrystal Building Blocks. <i>Nano Letters</i> , 2018, 18, 2557-2563.	9.1	89
30	Aerobic sludge granulation for simultaneous anaerobic decolorization and aerobic aromatic amines mineralization for azo dye wastewater treatment. <i>Environmental Technology (United Kingdom)</i> , 2018, 39, 1368-1375.	2.2	10
31	Novel nanosheets of ferrite nanoparticle arrays in carbon matrix from single source precursors: an anode material for lithium-ion batteries. <i>Journal of Materials Science</i> , 2018, 53, 4456-4466.	3.7	13
32	Tin Diselenide Molecular Precursor for Solution-Processable Thermoelectric Materials. <i>Angewandte Chemie</i> , 2018, 130, 17309-17314.	2.0	9
33	Tin Diselenide Molecular Precursor for Solution-Processable Thermoelectric Materials. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 17063-17068.	13.8	23
34	Facile synthesis of WO ₃ nanorods with controlled dimensions and tunable near-infrared absorption. <i>Journal of Nanoparticle Research</i> , 2018, 20, 1.	1.9	4
35	Improvement of Lithium-Ion Battery Performance at Low Temperature by Adopting Ionic Liquid-Decorated PMMA Nanoparticles as Electrolyte Component. <i>ACS Applied Energy Materials</i> , 2018, 1, 2664-2670.	5.1	44
36	Influence of solvents on the plasmonic properties of indium-doped zinc oxide nanocrystals. <i>Journal of Materials Science</i> , 2018, 53, 14456-14468.	3.7	1

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37	High Thermoelectric Performance in Crystallographically Textured n-Type Bi ₂ Te ₃ Produced from Asymmetric Colloidal Nanocrystals. ACS Nano, 2018, 12, 7174-7184.	14.6	114
38	Aggregation-induced emission luminogen-based fluorescence detection of hypoxanthine: a probe for biomedical diagnosis of energy metabolism-related conditions. Journal of Materials Chemistry B, 2018, 6, 4575-4578.	5.8	15
39	Product design: Nanoparticle-loaded polyvinyl butyral interlayer for solar control. AIChE Journal, 2018, 64, 3614-3624.	3.6	3
40	Chemical Product Design: Advances in Research and Teaching. Computer Aided Chemical Engineering, 2018, 44, 21-32.	0.5	8
41	Product design: Impact of government policy and consumer preference on company profit and corporate social responsibility. Computers and Chemical Engineering, 2018, 118, 118-131.	3.8	17
42	High copper loading metal organic decomposition paste for printed electronics. Journal of Materials Science, 2017, 52, 5617-5625.	3.7	14
43	Revitalizing digenite Cu _{1.8} S nanoparticles with the localized surface plasmon resonance (LSPR) effect by manganese incorporation. New Journal of Chemistry, 2017, 41, 677-684.	2.8	8
44	A highly elastic and flexible solid-state polymer electrolyte based on ionic liquid-decorated PMMA nanoparticles for lithium batteries. New Journal of Chemistry, 2017, 41, 13096-13103.	2.8	23
45	Sensitive and Specific Detection of L-Lactate Using an AIE-Active Fluorophore. ACS Applied Materials & Interfaces, 2017, 9, 38153-38158.	8.0	32
46	In situ synthesis of iron sulfide embedded porous carbon hollow spheres for sodium ion batteries. Nanoscale, 2017, 9, 19408-19414.	5.6	34
47	Novel Silicon Doped Tin Oxide-Carbon Microspheres as Anode Material for Lithium Ion Batteries: The Multiple Effects Exerted by Doped Si. Small, 2017, 13, 1702614.	10.0	26
48	Synthesis of various metal stearates and the corresponding monodisperse metal oxide nanoparticles. Powder Technology, 2016, 301, 949-958.	4.2	32
49	Facile synthesis of porous carbon spheres embedded with metal nanoparticles and their applications as supercapacitor electrodes. RSC Advances, 2016, 6, 91250-91255.	3.6	9
50	A single-ion conducting and shear-thinning polymer electrolyte based on ionic liquid-decorated PMMA nanoparticles for lithium-metal batteries. Journal of Materials Chemistry A, 2016, 4, 18543-18550.	10.3	66
51	Product design: Metal nanoparticle-based conductive inkjet inks. AIChE Journal, 2016, 62, 2740-2753.	3.6	30
52	A grand model for chemical product design. Computers and Chemical Engineering, 2016, 91, 15-27.	3.8	56
53	Relationship between maceration and extraction yield in the production of Chinese herbal medicine. Food and Bioprocess Technology, 2016, 98, 236-243.	3.6	11
54	Critical assessment of particle quality of commercial LiFePO ₄ cathode material using coin cells—a causal table for lithium-ion battery performance. Journal of Solid State Electrochemistry, 2016, 20, 379-387.	2.5	10

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55	Copper pastes using bimodal particles for flexible printed electronics. <i>Journal of Materials Science</i> , 2016, 51, 1914-1922.	3.7	39
56	High-concentration copper nanoparticles synthesis process for screen-printing conductive paste on flexible substrate. <i>Journal of Nanoparticle Research</i> , 2015, 17, 1.	1.9	47
57	Product design "Molecules, devices, functional products, and formulated products. <i>Computers and Chemical Engineering</i> , 2015, 81, 70-79.	3.8	74
58	Effect of fatty acid on the formation of ITO nanocrystals via one-pot pyrolysis reaction. <i>CrystEngComm</i> , 2015, 17, 1168-1172.	2.6	5
59	Isobenzofulvene-fullerene mono-adducts for organic photovoltaic applications. <i>Journal of Materials Chemistry C</i> , 2015, 3, 977-980.	5.5	11
60	Product Design "From Molecules to Formulations to Devices. <i>Computer Aided Chemical Engineering</i> , 2014, 34, 108-123.	0.5	3
61	Quality assurance of Chinese herbal medicines: Procedure for multiple-herb extraction. <i>AICHE Journal</i> , 2014, 60, 4014-4026.	3.6	4
62	Process Development for the Recycle of Spent Lithium Ion Batteries by Chemical Precipitation. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 18245-18259.	3.7	109
63	Large scale synthesis of nearly monodisperse, variable-shaped In_2O_3 nanocrystals via a one-pot pyrolysis reaction. <i>CrystEngComm</i> , 2014, 16, 9236-9244.	2.6	19
64	Synthesis and application of non-agglomerated ITO nanocrystals via pyrolysis of indium-tin stearate without using additional organic solvents. <i>Journal of Nanoparticle Research</i> , 2014, 16, 1.	1.9	10
65	Synthesis and characterization of nearly monodisperse deltoidal icositrahedral In_2O_3 nanocrystals via one-pot pyrolysis reaction. <i>CrystEngComm</i> , 2013, 15, 8065.	2.6	12
66	Quality assurance of Chinese herbal medicines: Procedure for single-herb extraction. <i>AICHE Journal</i> , 2013, 59, 4241-4254.	3.6	6
67	An amine-reactive tetraphenylethylene derivative for protein detection in SDS-PAGE. <i>Analyst</i> , 2012, 137, 5592.	3.5	24
68	Product Design: A Nanomized Nutraceutical with Enhanced Bioactivity and Bioavailability. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 7320-7326.	3.7	10
69	Process development of treatment plants for dyeing wastewater. <i>AICHE Journal</i> , 2012, 58, 2726-2742.	3.6	21
70	Design of formulated products: Experimental component. <i>AICHE Journal</i> , 2012, 58, 173-189.	3.6	49
71	Design of Protein Crystallization Processes Guided by Phase Diagrams. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 8163-8175.	3.7	17
72	Design of formulated products: A systematic methodology. <i>AICHE Journal</i> , 2011, 57, 2431-2449.	3.6	116

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73	Workflow for managing impurities in an integrated crystallization process. <i>AICHE Journal</i> , 2010, 56, 633-649.	3.6	13
74	Separation of fullerenes C ₆₀ and C ₇₀ using a crystallization-based process. <i>AICHE Journal</i> , 2010, 56, 1801-1812.	3.6	10
75	Product Design: a Transdermal Patch Containing a Traditional Chinese Medicinal Tincture. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 4904-4913.	3.7	10
76	Synthesis of an AIE-active fluorogen and its application in cell imaging. <i>Science in China Series B: Chemistry</i> , 2009, 52, 15-19.	0.8	49
77	An integrative approach to product development—A skin-care cream. <i>Computers and Chemical Engineering</i> , 2009, 33, 1097-1113.	3.8	49
78	Tribological behaviors of aligned carbon nanotube/fullerene-epoxy nanocomposites. <i>Polymer Engineering and Science</i> , 2008, 48, 1467-1475.	3.1	26
79	Thermodynamics of salt lake system: Representation, experiments, and visualization. <i>AICHE Journal</i> , 2008, 54, 706-727.	3.6	21
80	Separation and Purification of Schisandrin B from Fructus Schisandrae. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 4193-4201.	3.7	12
81	Development of Amino Acid Crystallization Processes: L-Glutamic Acid. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 2814-2822.	3.7	13
82	A novel evaporative crystallization column for the purification of fullerene C ₆₀ . <i>AICHE Journal</i> , 2007, 53, 531-534.	3.6	5
83	Diastereomeric salt crystallization synthesis for chiral resolution of ibuprofen. <i>AICHE Journal</i> , 2007, 53, 429-437.	3.6	22
84	Experimental determination of solid-liquid-liquid equilibrium phase diagrams. <i>AICHE Journal</i> , 2007, 53, 1608-1619.	3.6	19
85	Experimental Study of the Effect of Buffer on Chromatography and Crystallization Hybrid Process. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 8393-8399.	3.7	4
86	Quantitative Non-Covalent Functionalization of Carbon Nanotubes. <i>Journal of Cluster Science</i> , 2006, 17, 599-608.	3.3	21
87	A systematic iterative procedure for determining granulator operating parameters. <i>AICHE Journal</i> , 2006, 52, 3189-3202.	3.6	16
88	Development of Reactive Crystallization Processes. , 2005, , 339-358.		3
89	Process engineering research in China: A multiscale, market-driven approach. <i>AICHE Journal</i> , 2005, 51, 2620-2627.	3.6	11
90	Experimental Determination of Solid-Liquid Equilibrium Phase Diagrams for Crystallization-Based Process Synthesis. <i>Industrial & Engineering Chemistry Research</i> , 2005, 44, 3788-3798.	3.7	25

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91	Beyond process design: The emergence of a process development focus. Korean Journal of Chemical Engineering, 2003, 20, 791-798.	2.7	12
92	Product-centered processing: Pharmaceutical tablets and capsules. AIChE Journal, 2003, 49, 1193-1215.	3.6	57
93	Visualization of high-dimensional phase diagrams of molecular and ionic mixtures. AIChE Journal, 2002, 48, 991-1000.	3.6	16
94	Product-centered processing: Manufacture of chemical-based consumer products. AIChE Journal, 2002, 48, 1212-1230.	3.6	76
95	Development of fluidized catalytic reactors: Screening and scale-up. AIChE Journal, 2002, 48, 1498-1518.	3.6	23
96	Design of homogeneous biphasic catalytic processes. AIChE Journal, 2002, 48, 1991-2005.	3.6	1
97	High-dimensional solid-liquid phase diagrams involving compounds and polymorphs. AIChE Journal, 2002, 48, 2179-2192.	3.6	10
98	Operational issues in solids processing plants: Systems view. AIChE Journal, 2001, 47, 107-125.	3.6	26
99	Synthesis of chiral crystallization processes. AIChE Journal, 2001, 47, 369-387.	3.6	39
100	Representation of high-dimensional solid-liquid phase diagrams of ionic systems. AIChE Journal, 2001, 47, 861-879.	3.6	21
101	Design of liquid-liquid phase transfer catalytic processes. AIChE Journal, 2001, 47, 1832-1848.	3.6	8
102	Design of integrated crystallization systems. AIChE Journal, 2001, 47, 2474-2492.	3.6	67
103	Product-oriented process synthesis and development: Creams and pastes. AIChE Journal, 2001, 47, 2746-2767.	3.6	128
104	Screening multiphase reactors for nonisothermal multiple reactions. AIChE Journal, 2000, 46, 389-406.	3.6	13
105	Unified approach for synthesizing crystallization-based separation processes. AIChE Journal, 2000, 46, 1400-1421.	3.6	57
106	Representation of high-dimensional, molecular solid-liquid phase diagrams. AIChE Journal, 2000, 46, 2435-2455.	3.6	16
107	Design of reactive crystallization systems incorporating kinetics and mass-transfer effects. AIChE Journal, 1999, 45, 69-81.	3.6	33
108	Synthesis of bulk solids processing systems. AIChE Journal, 1999, 45, 1629-1648.	3.6	18

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109	Synthesis of prepolymerization stage in polycondensation processes. <i>AIChE Journal</i> , 1999, 45, 1808-1829.	3.6	25
110	Process boundary approach to separations synthesis. <i>AIChE Journal</i> , 1999, 45, 1939-1952.	3.6	13
111	Development of liquid-phase agitated reactors: Synthesis, simulation, and scaleup. <i>AIChE Journal</i> , 1999, 45, 2371-2391.	3.6	8
112	Improving Product Recovery in Fractional Crystallization Processes: A Retrofit of an Adipic Acid Plant. <i>Industrial & Engineering Chemistry Research</i> , 1999, 38, 823-832.	3.7	15
113	A break-even analysis of distillation-membrane hybrids. <i>AIChE Journal</i> , 1998, 44, 93-105.	3.6	44
114	Synthesis of extractive reaction processes. <i>AIChE Journal</i> , 1998, 44, 1363-1381.	3.6	46
115	Screening procedure for synthesizing isothermal multiphase reactors. <i>AIChE Journal</i> , 1998, 44, 1563-1578.	3.6	16
116	Effect of kinetics and mass transfer on design of extractive reaction processes. <i>AIChE Journal</i> , 1998, 44, 2212-2228.	3.6	33
117	Synthesis of processing system around a crystallizer. <i>AIChE Journal</i> , 1998, 44, 2240-2251.	3.6	28
118	Design of multistage extractive reaction processes. <i>AIChE Journal</i> , 1998, 44, 2689-2702.	3.6	20
119	Synthesis of drowning-out crystallization-based separations. <i>AIChE Journal</i> , 1997, 43, 91-103.	3.6	61
120	Simulation of solids processes accounting for particle-size distribution. <i>AIChE Journal</i> , 1997, 43, 715-726.	3.6	25
121	Synthesis of reactive crystallization processes. <i>AIChE Journal</i> , 1997, 43, 1737-1750.	3.6	57
122	Synthesis of crystallization-distillation hybrid separation processes. <i>AIChE Journal</i> , 1997, 43, 1751-1762.	3.6	33
123	New discretization procedure for the agglomeration equation. <i>AIChE Journal</i> , 1996, 42, 727-741.	3.6	34
124	Statistics of multiple particle breakage. <i>AIChE Journal</i> , 1996, 42, 1600-1611.	3.6	91
125	Separation of quaternary conjugate salt systems by fractional crystallization. <i>AIChE Journal</i> , 1996, 42, 2162-2174.	3.6	39
126	New discretization procedure for the breakage equation. <i>AIChE Journal</i> , 1995, 41, 1204-1216.	3.6	113

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127	Bypassing eutectics with extractive crystallization: Design alternatives and tradeoffs. AICHE Journal, 1995, 41, 1456-1470.	3.6	45
128	Fractional crystallization: Design alternatives and tradeoffs. AICHE Journal, 1995, 41, 2427-2438.	3.6	35
129	Experimental study of reaction in a partially wetted catalytic pellet. AICHE Journal, 1991, 37, 202-214.	3.6	38
130	Design and economic trade-offs of extractive crystallization processes. AICHE Journal, 1991, 37, 437-447.	3.6	34
131	A generalized Blake-Kozeny equation for multisized spherical particles. AICHE Journal, 1991, 37, 1583-1588.	3.6	119
132	Effectiveness of a partially wetted catalyst for bimolecular reaction kinetics. AICHE Journal, 1988, 34, 1361-1366.	3.6	10
133	Electrodeposition of polyimides from nonaqueous emulsions. Journal of Applied Polymer Science, 1988, 36, 1525-1540.	2.6	11
134	Effectiveness enhancement and reactant depletion in a partially wetted catalyst. AICHE Journal, 1987, 33, 1448-1465.	3.6	27