

# Jerry Heng

## List of Publications by Year in descending order

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Version: 2024-02-01

120  
papers

3,393  
citations

126858

33  
h-index

175177

52  
g-index

123  
all docs

123  
docs citations

123  
times ranked

3335  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of solvent, supersaturation ratio and silica template on morphology and polymorph evolution of vanillin during swift cooling crystallization. <i>Particuology</i> , 2022, 65, 93-104.	2.0	24
2	Investigating sizing induced surface alterations in crystalline powders using surface energy heterogeneity determination. <i>Powder Technology</i> , 2022, 395, 645-651.	2.1	2
3	Studying the impact of the pre-exponential factor on templated nucleation. <i>Faraday Discussions</i> , 2022, 235, 199-218.	1.6	2
4	Rational synthesis of polymer coated inorganic nanoparticles-MWCNT hybrids via solvophobic effects. <i>Carbon Trends</i> , 2022, 6, 100141.	1.4	0
5	The effect of chain length and side chains on the solubility of peptides in water from 278.15ÅK to 313.15ÅK: A case study in glycine homopeptides and dipeptides. <i>Journal of Molecular Liquids</i> , 2022, 352, 118681.	2.3	8
6	Effectiveness of a large-scale implementation of hybrid labs for experiential learning at Imperial College London. <i>Education for Chemical Engineers</i> , 2022, 39, 58-66.	2.8	7
7	The heterogeneous nucleation of pimelic acid under the effect of a template: experimental research and molecular simulation. <i>CrystEngComm</i> , 2022, 24, 2825-2835.	1.3	0
8	Unraveling the Impact of pH on the Crystallization of Pharmaceutical Proteins: A Case Study of Human Insulin. <i>Crystal Growth and Design</i> , 2022, 22, 3024-3033.	1.4	12
9	Template-Assisted Crystallization Behavior in Stirred Solutions of the Monoclonal Antibody Anti-CD20: Probability Distributions of Induction Times. <i>Crystal Growth and Design</i> , 2022, 22, 3637-3645.	1.4	3
10	Cocrystal design of vanillin with amide drugs: Crystal structure determination, solubility enhancement, DFT calculation. <i>Chemical Engineering Research and Design</i> , 2022, 183, 170-180.	2.7	7
11	Protein purification with nanoparticle-enhanced crystallisation. <i>Separation and Purification Technology</i> , 2021, 255, 117384.	3.9	17
12	The growth and shrinkage of water droplets at the oil-solid interface. <i>Journal of Colloid and Interface Science</i> , 2021, 584, 738-748.	5.0	2
13	Surface hydrophobicity: effect of alkyl chain length and network homogeneity. <i>Frontiers of Chemical Science and Engineering</i> , 2021, 15, 90-98.	2.3	33
14	Supersaturation and solvent dependent nucleation of carbamazepine polymorphs during rapid cooling crystallization. <i>CrystEngComm</i> , 2021, 23, 813-823.	1.3	19
15	Enhancing the crystallisation of insulin using amino acids as soft-templates to control nucleation. <i>CrystEngComm</i> , 2021, 23, 3951-3960.	1.3	8
16	Application of Phenyl-Functionalized Porous Silica for the Selective Crystallization of Carbamazepine Metastable Form II. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 939-946.	1.8	9
17	Phase Behaviour of Methane Hydrates in Confined Media. <i>Crystals</i> , 2021, 11, 201.	1.0	3
18	Biopurification of monoclonal antibody (mAb) through crystallisation. <i>Separation and Purification Technology</i> , 2021, 263, 118358.	3.9	10

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19	Triglycine (GGG) Adopts a Polyproline II (pPII) Conformation in Its Hydrated Crystal Form: Revealing the Role of Water in Peptide Crystallization. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 8416-8422.	2.1	8
20	The critical role of agitation in moving from preliminary screening results to reproducible batch protein crystallisation. <i>Chemical Engineering Research and Design</i> , 2021, 173, 81-88.	2.7	6
21	Protein crystallisation facilitated by silica particles to compensate for the adverse impact from protein impurities. <i>CrystEngComm</i> , 2021, 23, 8386-8391.	1.3	5
22	Spatially arranging interfacial droplets at the oil–solid interface. <i>Soft Matter</i> , 2020, 16, 107-113.	1.2	3
23	High Protein-Loading Silica Template for Heterogeneous Protein Crystallization. <i>Crystal Growth and Design</i> , 2020, 20, 866-873.	1.4	23
24	Surface Energy Mapping of Modified Silica Using IGC Technique at Finite Dilution. <i>ACS Omega</i> , 2020, 5, 10266-10275.	1.6	5
25	Protein crystal occurrence domains in selective protein crystallisation for bio-separation. <i>CrystEngComm</i> , 2020, 22, 4566-4572.	1.3	6
26	Biomass-derived activated carbons for the removal of pharmaceutical micropollutants from wastewater: A review. <i>Separation and Purification Technology</i> , 2020, 253, 117536.	3.9	147
27	Computational Analysis of the Solid–State and Solvation Properties of Carbamazepine in Relation to its Polymorphism. <i>Chemical Engineering and Technology</i> , 2020, 43, 1152-1159.	0.9	4
28	Stable metal–organic frameworks with low water affinity built from methyl-siloxane linkers. <i>Chemical Communications</i> , 2020, 56, 7905-7908.	2.2	7
29	Influence of interparticle structuring on the surface energetics of a binary powder system. <i>International Journal of Pharmaceutics</i> , 2020, 581, 119295.	2.6	7
30	Modified Voronoi Analysis of Spontaneous Formation of Interfacial Droplets on Immersed Oil–Solid Substrates. <i>Langmuir</i> , 2020, 36, 5400-5407.	1.6	1
31	Anything but Conventional Chromatography Approaches in Bioseparation. <i>Biotechnology Journal</i> , 2020, 15, e1900274.	1.8	47
32	Gravity on Crystallization of Lysozyme: Slower or Faster?. <i>Crystal Growth and Design</i> , 2019, 19, 7402-7410.	1.4	6
33	Template-induced nucleation for controlling crystal polymorphism: from molecular mechanisms to applications in pharmaceutical processing. <i>CrystEngComm</i> , 2019, 21, 4122-4135.	1.3	37
34	Solubility determination and modelling of benzamide in organic solvents at temperatures from 283.15 K and 323.15 K, and ternary phase diagrams of benzamide-benzoic acid cocrystals in ethanol at 298.15 K. <i>Journal of Molecular Liquids</i> , 2019, 286, 110885.	2.3	25
35	Optimization of Vapor Diffusion Conditions for Anti-CD20 Crystallization and Scale-Up to Meso Batch. <i>Crystals</i> , 2019, 9, 230.	1.0	16
36	CHARACTERIZATION OF SILICA MODIFIED WITH SILANES BY USING THERMOGRAVIMETRIC ANALYSIS COMBINED WITH INFRARED DETECTION. <i>Rubber Chemistry and Technology</i> , 2019, 92, 237-262.	0.6	14

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37	Calcium sulphate crystallisation in the presence of mesoporous silica particles: Experiments and population balance modelling. <i>Chemical Engineering Science</i> , 2019, 202, 238-249.	1.9	7
38	Synergistic Effect of Graphene Oxide and Different Valence of Cations on Promoting Catalase Crystallization. <i>Crystal Growth and Design</i> , 2019, 19, 2838-2844.	1.4	9
39	Enhancement of Lysozyme Crystallization Using DNA as a Polymeric Additive. <i>Crystals</i> , 2019, 9, 186.	1.0	10
40	Investigating the Role of Glass and Quartz Substrates on the Formation of Interfacial Droplets. <i>Journal of Physical Chemistry C</i> , 2019, 123, 1151-1159.	1.5	13
41	Development and Workflow of a Continuous Protein Crystallization Process: A Case of Lysozyme. <i>Crystal Growth and Design</i> , 2019, 19, 983-991.	1.4	33
42	Surface characterization of bio-fillers from typical mollusk shell using computational algorithms. <i>International Journal of Adhesion and Adhesives</i> , 2018, 84, 48-53.	1.4	2
43	Influences of Crystal Anisotropy in Pharmaceutical Process Development. <i>Pharmaceutical Research</i> , 2018, 35, 100.	1.7	44
44	DNA Origami as Seeds for Promoting Protein Crystallization. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 44240-44246.	4.0	23
45	Continuous protein crystallisation platform and process: Case of lysozyme. <i>Chemical Engineering Research and Design</i> , 2018, 136, 529-535.	2.7	27
46	Formation of multi-compartmental drug carriers by hetero-aggregation of polyelectrolyte microgels. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 522, 250-259.	2.3	6
47	Surface Chemistry and Humidity in Powder Electrostatics: A Comparative Study between Tribocharging and Corona Discharge. <i>ACS Omega</i> , 2017, 2, 1576-1582.	1.6	35
48	Noncovalent Surface Modification of Cellulose Nanopapers by Adsorption of Polymers from Aprotic Solvents. <i>Langmuir</i> , 2017, 33, 5707-5712.	1.6	43
49	Solids surface characterization using computational algorithms: A case study for talc fillers. <i>Applied Clay Science</i> , 2017, 141, 212-218.	2.6	3
50	Influence of particle properties on powder bulk behaviour and processability. <i>International Journal of Pharmaceutics</i> , 2017, 518, 138-154.	2.6	66
51	Selective crystallisation of carbamazepine polymorphs on surfaces with differing properties. <i>CrystEngComm</i> , 2017, 19, 6573-6578.	1.3	36
52	Comparative study of surface properties determination of colored pearl-oyster-shell-derived filler using inverse gas chromatography method and contact angle measurements. <i>International Journal of Adhesion and Adhesives</i> , 2017, 78, 55-59.	1.4	12
53	Controlling the Accumulation of Water at Oil/Solid Interfaces with Gradient Coating. <i>Journal of Physical Chemistry B</i> , 2017, 121, 6766-6772.	1.2	6
54	The Effect of Polymorphism on Surface Energetics of D-Mannitol Polymorphs. <i>AAPS Journal</i> , 2017, 19, 103-109.	2.2	15

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55	Influence of solvent polarity and supersaturation on template-induced nucleation of carbamazepine crystal polymorphs. <i>Journal of Crystal Growth</i> , 2017, 469, 84-90.	0.7	33
56	Crystallisation via novel 3D nanotemplates as a tool for protein purification and bio-separation. <i>Journal of Crystal Growth</i> , 2017, 469, 42-47.	0.7	15
57	A Comparative Study of Production of Glass Microspheres by using Thermal Process. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 205, 012022.	0.3	10
58	Influence of sample preparation on IGC measurements: the cases of silanised glass wool and packing structure. <i>RSC Advances</i> , 2017, 7, 12194-12200.	1.7	7
59	Seeding in Crystallisation. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , 2017, , 235-245.	0.5	15
60	Surface free energy and mechanical performance of LDPE/CBF composites containing toxic-metal free filler. <i>International Journal of Adhesion and Adhesives</i> , 2017, 77, 58-62.	1.4	5
61	Determining Surface Energetics of Solid Surfaces. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , 2017, , 133-144.	0.5	1
62	Study on the surface properties of colored talc filler (CTF) and mechanical performance of CTF/acrylonitrile-butadiene-styrene composite. <i>Journal of Alloys and Compounds</i> , 2016, 676, 513-520.	2.8	8
63	Model for Interpreting Surface Crystallization Using Quartz Crystal Microbalance: Theory and Experiments. <i>Analytical Chemistry</i> , 2016, 88, 4886-4893.	3.2	10
64	A novel colored talc filler: Preparation and surface property determination using two distinct methods. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2016, 155, 54-61.	1.8	6
65	Functionalized Mesoporous Silica for the Control of Crystallization Fouling. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 11475-11479.	1.8	3
66	Novel Coupling of a Capacitive Probe with a Dynamic Vapor Sorption (DVS) Instrument for the Electrostatic Measurements of Powders. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 5585-5589.	1.8	3
67	A Novel Polyclonal Rabbit Immunoglobulin G Crystallisation Approach Using 3D Nanotemplate. <i>International Journal of Chemical Engineering and Applications (IJCEA)</i> , 2016, 7, 369-372.	0.3	0
68	Heterogeneous nucleants for crystallogenesis and bioseparation. <i>Current Opinion in Chemical Engineering</i> , 2015, 8, 69-75.	3.8	36
69	Decoupling the Contribution of Surface Energy and Surface Area on the Cohesion of Pharmaceutical Powders. <i>Pharmaceutical Research</i> , 2015, 32, 248-259.	1.7	25
70	Preparation and characterisation of 3D nanotemplates for protein crystallisation. <i>Powder Technology</i> , 2015, 282, 10-18.	2.1	11
71	Stability study of tubular DNA origami in the presence of protein crystallisation buffer. <i>RSC Advances</i> , 2015, 5, 58734-58737.	1.7	30
72	Establishing template-induced polymorphic domains for API crystallisation: the case of carbamazepine. <i>CrystEngComm</i> , 2015, 17, 6384-6392.	1.3	33

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73	Measuring the sticking of mefenamic acid powders on stainless steel surface. International Journal of Pharmaceutics, 2015, 496, 407-413.	2.6	19
74	Effect of milling temperatures on surface area, surface energy and cohesion of pharmaceutical powders. International Journal of Pharmaceutics, 2015, 495, 234-240.	2.6	42
75	A simple method for preparing super-hydrophobic powder from paper sludge ash. Materials Letters, 2015, 142, 80-83.	1.3	46
76	pH-triggered phase inversion and separation of hydrophobised bacterial cellulose stabilised Pickering emulsions. Reactive and Functional Polymers, 2014, 85, 208-213.	2.0	22
77	Investigation of drug-polymer interaction in solid dispersions by vapour sorption methods. International Journal of Pharmaceutics, 2014, 469, 159-167.	2.6	46
78	Phase Behavior of Medium and High Internal Phase Water-in-Oil Emulsions Stabilized Solely by Hydrophobized Bacterial Cellulose Nanofibrils. Langmuir, 2014, 30, 452-460.	1.6	95
79	Template-induced polymorphic selectivity: the effects of surface chemistry and solute concentration on carbamazepine crystallisation. CrystEngComm, 2014, 16, 4927-4930.	1.3	40
80	A New Method To Determine Dispersive Surface Energy Site Distributions by Inverse Gas Chromatography. Langmuir, 2014, 30, 8029-8035.	1.6	29
81	Decoupling the contribution of dispersive and acid-base components of surface energy on the cohesion of pharmaceutical powders. International Journal of Pharmaceutics, 2014, 475, 592-596.	2.6	19
82	Effect of crystal habits on the surface energy and cohesion of crystalline powders. International Journal of Pharmaceutics, 2014, 472, 140-147.	2.6	50
83	A brief review of methods for terminal functionalization of DNA. Methods, 2014, 67, 116-122.	1.9	27
84	High speed imaging with electrostatic charge monitoring to track powder deagglomeration upon impact. Journal of Aerosol Science, 2013, 65, 77-87.	1.8	12
85	Dilatometry of powder compacts - Characterizing amorphous-crystalline transformations. Powder Technology, 2013, 236, 12-16.	2.1	4
86	Process-induced phase transformation of carbamazepine dihydrate to its polymorphic anhydrides. Powder Technology, 2013, 236, 114-121.	2.1	25
87	Nucleation of Elusive Crystal Polymorphs at the Solution-Substrate Contact Line. Crystal Growth and Design, 2013, 13, 1180-1186.	1.4	30
88	Crystallisation of the orthorhombic form of acetaminophen: Combined effect of surface topography and chemistry. Powder Technology, 2013, 236, 24-29.	2.1	15
89	Visualizing powder de-agglomeration upon impact with simultaneous flowing charge behaviour. , 2013, , .		0
90	A Review of Inverse Gas Chromatography and its Development as a Tool to Characterize Anisotropic Surface Properties of Pharmaceutical Solids. KONA Powder and Particle Journal, 2013, 30, 164-180.	0.9	81

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91	Effect of Milling on Particle Shape and Surface Energy Heterogeneity of Needle-Shaped Crystals. <i>Pharmaceutical Research</i> , 2012, 29, 2806-2816.	1.7	94
92	Comparative Study of the Triboelectric Charging Behavior of Powders Using a Nonintrusive Approach. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 16488-16494.	1.8	10
93	Effect of surface chemistry of novel templates on crystallization of proteins. <i>Chemical Engineering Science</i> , 2012, 77, 201-206.	1.9	33
94	Crystallization of Proteins at Ultralow Supersaturations Using Novel Three-Dimensional Nanotemplates. <i>Crystal Growth and Design</i> , 2012, 12, 1772-1777.	1.4	32
95	Selective Crystallization of Proteins Using Engineered Nanonucleants. <i>Crystal Growth and Design</i> , 2012, 12, 1362-1369.	1.4	51
96	Pharmaceutical nanocrystals. <i>Current Opinion in Chemical Engineering</i> , 2012, 1, 102-107.	3.8	42
97	Computing the Surface Energy Distributions of Heterogeneous Crystalline Powders. <i>Journal of Adhesion Science and Technology</i> , 2011, 25, 339-355.	1.4	25
98	Nucleation and Crystallization of Lysozyme: Role of Substrate Surface Chemistry and Topography. <i>Journal of Adhesion Science and Technology</i> , 2011, 25, 357-366.	1.4	20
99	Role of Surface Chemistry and Energetics in High Shear Wet Granulation. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 9642-9649.	1.8	34
100	Effects of Oscillatory Flow on the Nucleation and Crystallization of Insulin. <i>Crystal Growth and Design</i> , 2011, 11, 4353-4359.	1.4	42
101	Novel parallel plate condenser for single particle electrostatic force measurements in atomic force microscope. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 385, 206-212.	2.3	12
102	Determination of surface heterogeneity of d-mannitol by sessile drop contact angle and finite concentration inverse gas chromatography. <i>International Journal of Pharmaceutics</i> , 2010, 387, 79-86.	2.6	68
103	Influence of fines on the surface energy heterogeneity of lactose for pulmonary drug delivery. <i>International Journal of Pharmaceutics</i> , 2010, 388, 88-94.	2.6	33
104	Synthesis and characterization of novel pH-, ionic strength and temperature- sensitive hydrogel for insulin delivery. <i>Polymer</i> , 2010, 51, 1687-1693.	1.8	134
105	Dehydration Kinetics of Pharmaceutical Hydrate: Effects of Environmental Conditions and Crystal Forms. <i>Drying Technology</i> , 2010, 28, 1164-1169.	1.7	15
106	Protein Crystallization by Forced Flow through Glass Capillaries: Enhanced Lysozyme Crystal Growth. <i>Crystal Growth and Design</i> , 2010, 10, 1074-1083.	1.4	31
107	Spontaneous Formation of Water Droplets at Oil-Solid Interfaces. <i>Langmuir</i> , 2010, 26, 13797-13804.	1.6	28
108	Agglomeration Effects on the Drying and Dehydration Stability of Pharmaceutical Acicular Hydrate: Carbamazepine Dihydrate. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 422-427.	1.8	12

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109	Crystal Habits and the Variation in Surface Energy Heterogeneity. <i>Crystal Growth and Design</i> , 2009, 9, 4907-4911.	1.4	40
110	Inverse Gas Chromatographic Method for Measuring the Dispersive Surface Energy Distribution for Particulates. <i>Langmuir</i> , 2008, 24, 9551-9557.	1.6	90
111	Surface Modification of Natural Fibers Using Bacteria: Depositing Bacterial Cellulose onto Natural Fibers To Create Hierarchical Fiber Reinforced Nanocomposites. <i>Biomacromolecules</i> , 2008, 9, 1643-1651.	2.6	226
112	Wetting Behavior of Ibuprofen Racemate Surfaces. <i>Journal of Adhesion</i> , 2008, 84, 483-501.	1.8	11
113	Methods to determine surface energies of natural fibres: a review. <i>Composite Interfaces</i> , 2007, 14, 581-604.	1.3	71
114	Determination of the Surface Energy Distributions of Different Processed Lactose. <i>Drug Development and Industrial Pharmacy</i> , 2007, 33, 1240-1253.	0.9	79
115	Anisotropic Surface Chemistry of Aspirin Crystals. <i>Journal of Pharmaceutical Sciences</i> , 2007, 96, 2134-2144.	1.6	58
116	Anisotropic Surface Energetics and Wettability of Macroscopic Form I Paracetamol Crystals. <i>Langmuir</i> , 2006, 22, 2760-2769.	1.6	93
117	Wettability of Paracetamol Polymorphic Forms I and II. <i>Langmuir</i> , 2006, 22, 6905-6909.	1.6	42
118	Anisotropic surface chemistry of crystalline pharmaceutical solids. <i>AAPS PharmSciTech</i> , 2006, 7, E12-E20.	1.5	49
119	The Effects of Milling on the Surface Properties of Form I Paracetamol Crystals. <i>Pharmaceutical Research</i> , 2006, 23, 1918-1927.	1.7	112
120	Production of Cenospheres from Coal Fly Ash through Vertical Thermal Flame (VTF) Process. <i>Materials Science Forum</i> , 0, 880, 7-10.	0.3	7