Jerry Heng

List of Publications by Year
in descending order

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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	Surface Modification of Natural Fibers Using Bacteria: Depositing Bacterial Cellulose onto Natural Fibers To Create Hierarchical Fiber Reinforced Nanocomposites. Biomacromolecules, 2008, 9, 1643-1651.	2.6	226
2	Biomass-derived activated carbons for the removal of pharmaceutical mircopollutants from wastewater: A review. Separation and Purification Technology, 2020, 253, 117536.	3.9	147
3	Synthesis and characterization of novel pH-, ionic strength and temperature- sensitive hydrogel for insulin delivery. Polymer, 2010, 51, 1687-1693.	1.8	134
4	The Effects of Milling on the Surface Properties of Form I Paracetamol Crystals. Pharmaceutical Research, 2006, 23, 1918-1927.	1.7	112
5	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
6	Effect of Milling on Particle Shape and Surface Energy Heterogeneity of Needle-Shaped Crystals. Pharmaceutical Research, 2012, 29, 2806-2816.	1.7	94
7	Anisotropic Surface Energetics and Wettability of Macroscopic Form I Paracetamol Crystals. Langmuir, 2006, 22, 2760-2769.	1.6	93
8	Inverse Gas Chromatographic Method for Measuring the Dispersive Surface Energy Distribution for Particulates. Langmuir, 2008, 24, 9551-9557.	1.6	90
9	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
10	Determination of the Surface Energy Distributions of Different Processed Lactose. Drug Development and Industrial Pharmacy, 2007, 33, 1240-1253.	0.9	79
11	Methods to determine surface energies of natural fibres: a review. Composite Interfaces, 2007, 14, 581-604.	1.3	71
12	Determination of surface heterogeneity of d-mannitol by sessile drop contact angle and finite concentration inverse gas chromatography. International Journal of Pharmaceutics, 2010, 387, 79-86.	2.6	68
13	Influence of particle properties on powder bulk behaviour and processability. International Journal of Pharmaceutics, 2017, 518, 138-154.	2.6	66
14	Anisotropic Surface Chemistry of Aspirin Crystals. Journal of Pharmaceutical Sciences, 2007, 96, 2134-2144.	1.6	58
15	Selective Crystallization of Proteins Using Engineered Nanonucleants. Crystal Growth and Design, 2012, 12, 1362-1369.	1.4	51
16	Effect of crystal habits on the surface energy and cohesion of crystalline powders. International Journal of Pharmaceutics, 2014, 472, 140-147.	2.6	50
17	Anisotropic surface chemistry of crystalline pharmaceutical solids. AAPS PharmSciTech, 2006, 7, E12-E20.	1.5	49
18	Anything but Conventional Chromatography Approaches in Bioseparation. Biotechnology Journal, 2020, 15, e1900274.	1.8	47

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19	Investigation of drugâ€“polymer interaction in solid dispersions by vapour sorption methods. International Journal of Pharmaceutics, 2014, 469, 159-167.	2.6	46
20	A simple method for preparing super-hydrophobic powder from paper sludge ash. Materials Letters, 2015, 142, 80-83.	1.3	46
21	Influences of Crystal Anisotropy in Pharmaceutical Process Development. Pharmaceutical Research, 2018, 35, 100.	1.7	44
22	Noncovalent Surface Modification of Cellulose Nanopapers by Adsorption of Polymers from Aprotic Solvents. Langmuir, 2017, 33, 5707-5712.	1.6	43
23	Wettability of Paracetamol Polymorphic Forms I and II. Langmuir, 2006, 22, 6905-6909.	1.6	42
24	Effects of Oscillatory Flow on the Nucleation and Crystallization of Insulin. Crystal Growth and Design, 2011, 11, 4353-4359.	1.4	42
25	Pharmaceutical nanocrystals. Current Opinion in Chemical Engineering, 2012, 1, 102-107.	3.8	42
26	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
27	Crystal Habits and the Variation in Surface Energy Heterogeneity. Crystal Growth and Design, 2009, 9, 4907-4911.	1.4	40
28	Template-induced polymorphic selectivity: the effects of surface chemistry and solute concentration on carbamazepine crystallisation. CrystEngComm, 2014, 16, 4927-4930.	1.3	40
29	Template-induced nucleation for controlling crystal polymorphism: from molecular mechanisms to applications in pharmaceutical processing. CrystEngComm, 2019, 21, 4122-4135.	1.3	37
30	Heterogeneous nucleants for crystallogenesis and bioseparation. Current Opinion in Chemical Engineering, 2015, 8, 69-75.	3.8	36
31	Selective crystallisation of carbamazepine polymorphs on surfaces with differing properties. CrystEngComm, 2017, 19, 6573-6578.	1.3	36
32	Surface Chemistry and Humidity in Powder Electrostatics: A Comparative Study between Tribocharging and Corona Discharge. ACS Omega, 2017, 2, 1576-1582.	1.6	35
33	Role of Surface Chemistry and Energetics in High Shear Wet Granulation. Industrial & Engineering Chemistry Research, 2011, 50, 9642-9649.	1.8	34
34	Influence of fines on the surface energy heterogeneity of lactose for pulmonary drug delivery. International Journal of Pharmaceutics, 2010, 388, 88-94.	2.6	33
35	Effect of surface chemistry of novel templates on crystallization of proteins. Chemical Engineering Science, 2012, 77, 201-206.	1.9	33
36	Establishing template-induced polymorphic domains for API crystallisation: the case of carbamazepine. CrystEngComm, 2015, 17, 6384-6392.	1.3	33

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37	Influence of solvent polarity and supersaturation on template-induced nucleation of carbamazepine crystal polymorphs. Journal of Crystal Growth, 2017, 469, 84-90.	0.7	33
38	Development and Workflow of a Continuous Protein Crystallization Process: A Case of Lysozyme. Crystal Growth and Design, 2019, 19, 983-991.	1.4	33
39	Surface hydrophobicity: effect of alkyl chain length and network homogeneity. Frontiers of Chemical Science and Engineering, 2021, 15, 90-98.	2.3	33
40	Crystallization of Proteins at Ultralow Supersaturations Using Novel Three-Dimensional Nanotemplates. Crystal Growth and Design, 2012, 12, 1772-1777.	1.4	32
41	Protein Crystallization by Forced Flow through Glass Capillaries: Enhanced Lysozyme Crystal Growth. Crystal Growth and Design, 2010, 10, 1074-1083.	1.4	31
42	Nucleation of Elusive Crystal Polymorphs at the Solutionâ€“Substrate Contact Line. Crystal Growth and Design, 2013, 13, 1180-1186.	1.4	30
43	Stability study of tubular DNA origami in the presence of protein crystallisation buffer. RSC Advances, 2015, 5, 58734-58737.	1.7	30
44	A New Method To Determine Dispersive Surface Energy Site Distributions by Inverse Gas Chromatography. Langmuir, 2014, 30, 8029-8035.	1.6	29
45	Spontaneous Formation of Water Droplets at Oilâ^'Solid Interfaces. Langmuir, 2010, 26, 13797-13804.	1.6	28
46	A brief review of methods for terminal functionalization of DNA. Methods, 2014, 67, 116-122.	1.9	27
47	Continuous protein crystallisation platform and process: Case of lysozyme. Chemical Engineering Research and Design, 2018, 136, 529-535.	2.7	27
48	Computing the Surface Energy Distributions of Heterogeneous Crystalline Powders. Journal of Adhesion Science and Technology, 2011, 25, 339-355.	1.4	25
49	Process-induced phase transformation of carbamazepine dihydrate to its polymorphic anhydrates. Powder Technology, 2013, 236, 114-121.	2.1	25
50	Decoupling the Contribution of Surface Energy and Surface Area on the Cohesion of Pharmaceutical Powders. Pharmaceutical Research, 2015, 32, 248-259.	1.7	25
51	Solubility determination and modelling of benzamide in organic solvents at temperatures from 283.15â€¯K and 323.15â€¯K, and ternary phase diagrams of benzamide-benzoic acid cocrystals in ethanol at 298.15â€¯K. Journal of Molecular Liquids, 2019, 286, 110885.	2.3	25
52	Effects of solvent, supersaturation ratio and silica template on morphology and polymorph evolution of vanillin during swift cooling crystallization. Particuology, 2022, 65, 93-104.	2.0	24
53	DNA Origami as Seeds for Promoting Protein Crystallization. ACS Applied Materials & Interfaces, 2018, 10, 44240-44246.	4.0	23
54	High Protein-Loading Silica Template for Heterogeneous Protein Crystallization. Crystal Growth and Design, 2020, 20, 866-873.	1.4	23

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55	pH-triggered phase inversion and separation of hydrophobised bacterial cellulose stabilised Pickering emulsions. Reactive and Functional Polymers, 2014, 85, 208-213.	2.0	22
56	Nucleation and Crystallization of Lysozyme: Role of Substrate Surface Chemistry and Topography. Journal of Adhesion Science and Technology, 2011, 25, 357-366.	1.4	20
57	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
58	Measuring the sticking of mefenamic acid powders on stainless steel surface. International Journal of Pharmaceutics, 2015, 496, 407-413.	2.6	19
59	Supersaturation and solvent dependent nucleation of carbamazepine polymorphs during rapid cooling crystallization. CrystEngComm, 2021, 23, 813-823.	1.3	19
60	Protein purification with nanoparticle-enhanced crystallisation. Separation and Purification Technology, 2021, 255, 117384.	3.9	17
61	Optimization of Vapor Diffusion Conditions for Anti-CD20 Crystallization and Scale-Up to Meso Batch. Crystals, 2019, 9, 230.	1.0	16
62	Dehydration Kinetics of Pharmaceutical Hydrate: Effects of Environmental Conditions and Crystal Forms. Drying Technology, 2010, 28, 1164-1169.	1.7	15
63	Crystallisation of the orthorhombic form of acetaminophen: Combined effect of surface topography and chemistry. Powder Technology, 2013, 236, 24-29.	2.1	15
64	The Effect of Polymorphism on Surface Energetics of D-Mannitol Polymorphs. AAPS Journal, 2017, 19, 103-109.	2.2	15
65	Crystallisation via novel 3D nanotemplates as a tool for protein purification and bio-separation. Journal of Crystal Growth, 2017, 469, 42-47.	0.7	15
66	Seeding in Crystallisation. NATO Science for Peace and Security Series A: Chemistry and Biology, 2017, , 235-245.	0.5	15
67	CHARACTERIZATION OF SILICA MODIFIED WITH SILANES BY USING THERMOGRAVIMETRIC ANALYSIS COMBINED WITH INFRARED DETECTION. Rubber Chemistry and Technology, 2019, 92, 237-262.	0.6	14
68	Investigating the Role of Glass and Quartz Substrates on the Formation of Interfacial Droplets. Journal of Physical Chemistry C, 2019, 123, 1151-1159.	1.5	13
69	Agglomeration Effects on the Drying and Dehydration Stability of Pharmaceutical Acicular Hydrate: Carbamazepine Dihydrate. Industrial & Engineering Chemistry Research, 2010, 49, 422-427.	1.8	12
70	Novel parallel plate condenser for single particle electrostatic force measurements in atomic force microscope. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 385, 206-212.	2.3	12
71	High speed imaging with electrostatic charge monitoring to track powder deagglomeration upon impact. Journal of Aerosol Science, 2013, 65, 77-87.	1.8	12
72	Comparative study of surface properties determination of colored pearl-oyster-shell-derived filler using inverse gas chromatography method and contact angle measurements. International Journal of Adhesion and Adhesives, 2017, 78, 55-59.	1.4	12

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73	Unraveling the Impact of pH on the Crystallization of Pharmaceutical Proteins: A Case Study of Human Insulin. Crystal Growth and Design, 2022, 22, 3024-3033.	1.4	12
74	Wetting Behavior of Ibuprofen Racemate Surfaces. Journal of Adhesion, 2008, 84, 483-501.	1.8	11
75	Preparation and characterisation of 3D nanotemplates for protein crystallisation. Powder Technology, 2015, 282, 10-18.	2.1	11
76	Comparative Study of the Triboelectric Charging Behavior of Powders Using a Nonintrusive Approach. Industrial & Engineering Chemistry Research, 2012, 51, 16488-16494.	1.8	10
77	Model for Interpreting Surface Crystallization Using Quartz Crystal Microbalance: Theory and Experiments. Analytical Chemistry, 2016, 88, 4886-4893.	3.2	10
78	A Comparative Study of Production of Glass Microspheres by using Thermal Process. IOP Conference Series: Materials Science and Engineering, 2017, 205, 012022.	0.3	10
79	Enhancement of Lysozyme Crystallization Using DNA as a Polymeric Additive. Crystals, 2019, 9, 186.	1.0	10
80	Biopurification of monoclonal antibody (mAb) through crystallisation. Separation and Purification Technology, 2021, 263, 118358.	3.9	10
81	Synergistic Effect of Graphene Oxide and Different Valence of Cations on Promoting Catalase Crystallization. Crystal Growth and Design, 2019, 19, 2838-2844.	1.4	9
82	Application of Phenyl-Functionalized Porous Silica for the Selective Crystallization of Carbamazepine Metastable Form II. Industrial & Engineering Chemistry Research, 2021, 60, 939-946.	1.8	9
83	Study on the surface properties of colored talc filler (CTF) and mechanical performance of CTF/acrylonitrile-butadiene-styrene composite. Journal of Alloys and Compounds, 2016, 676, 513-520.	2.8	8
84	Enhancing the crystallisation of insulin using amino acids as soft-templates to control nucleation. CrystEngComm, 2021, 23, 3951-3960.	1.3	8
85	Triglycine (GGG) Adopts a Polyproline II (pPII) Conformation in Its Hydrated Crystal Form: Revealing the Role of Water in Peptide Crystallization. Journal of Physical Chemistry Letters, 2021, 12, 8416-8422.	2.1	8
86	The effect of chain length and side chains on the solubility of peptides in water from 278.15ÂK to 313.15ÂK: A case study in glycine homopeptides and dipeptides. Journal of Molecular Liquids, 2022, 352, 118681.	2.3	8
87	Production of Cenospheres from Coal Fly Ash through Vertical Thermal Flame (VTF) Process. Materials Science Forum, 0, 880, 7-10.	0.3	7
88	Influence of sample preparation on IGC measurements: the cases of silanised glass wool and packing structure. RSC Advances, 2017, 7, 12194-12200.	1.7	7
89	Calcium sulphate crystallisation in the presence of mesoporous silica particles: Experiments and population balance modelling. Chemical Engineering Science, 2019, 202, 238-249.	1.9	7
90	Stable metalâ€“organic frameworks with low water affinity built from methyl-siloxane linkers. Chemical Communications, 2020, 56, 7905-7908.	2.2	7

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91	Influence of interparticle structuring on the surface energetics of a binary powder system. International Journal of Pharmaceutics, 2020, 581, 119295.	2.6	7
92	Effectiveness of a large-scale implementation of hybrid labs for experiential learning at Imperial College London. Education for Chemical Engineers, 2022, 39, 58-66.	2.8	7
93	Cocrystal design of vanillin with amide drugs: Crystal structure determination, solubility enhancement, DFT calculation. Chemical Engineering Research and Design, 2022, 183, 170-180.	2.7	7
94	A novel colored talc filler: Preparation and surface property determination using two distinct methods. Chemometrics and Intelligent Laboratory Systems, 2016, 155, 54-61.	1.8	6
95	Formation of multi-compartmental drug carriers by hetero-aggregation of polyelectrolyte microgels. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 522, 250-259.	2.3	6
96	Controlling the Accumulation of Water at Oilâ€“Solid Interfaces with Gradient Coating. Journal of Physical Chemistry B, 2017, 121, 6766-6772.	1.2	6
97	Gravity on Crystallization of Lysozyme: Slower or Faster?. Crystal Growth and Design, 2019, 19, 7402-7410.	1.4	6
98	Protein crystal occurrence domains in selective protein crystallisation for bio-separation. CrystEngComm, 2020, 22, 4566-4572.	1.3	6
99	The critical role of agitation in moving from preliminary screening results to reproducible batch protein crystallisation. Chemical Engineering Research and Design, 2021, 173, 81-88.	2.7	6
100	Surface Energy Mapping of Modified Silica Using IGC Technique at Finite Dilution. ACS Omega, 2020, 5, 10266-10275.	1.6	5
101	Surface free energy and mechanical performance of LDPE/CBF composites containing toxic-metal free filler. International Journal of Adhesion and Adhesives, 2017, 77, 58-62.	1.4	5
102	Protein crystallisation facilitated by silica particles to compensate for the adverse impact from protein impurities. CrystEngComm, 2021, 23, 8386-8391.	1.3	5
103	Dilatometry of powder compacts â€" Characterizing amorphous-crystalline transformations. Powder Technology, 2013, 236, 12-16.	2.1	4
104	Computational Analysis of the Solidâ€State and Solvation Properties of Carbamazepine in Relation to its Polymorphism. Chemical Engineering and Technology, 2020, 43, 1152-1159.	0.9	4
105	Functionalized Mesoporous Silica for the Control of Crystallization Fouling. Industrial & Engineering Chemistry Research, 2016, 55, 11475-11479.	1.8	3
106	Novel Coupling of a Capacitive Probe with a Dynamic Vapor Sorption (DVS) Instrument for the Electrostatic Measurements of Powders. Industrial & Engineering Chemistry Research, 2016, 55, 5585-5589.	1.8	3
107	Solids surface characterization using computational algorithms: A case study for talc fillers. Applied Clay Science, 2017, 141, 212-218.	2.6	3
108	Spatially arranging interfacial droplets at the oilâ€“solid interface. Soft Matter, 2020, 16, 107-113.	1.2	3

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109	Phase Behaviour of Methane Hydrates in Confined Media. Crystals, 2021, 11, 201.	1.0	3
110	Template-Assisted Crystallization Behavior in Stirred Solutions of the Monoclonal Antibody Anti-CD20: Probability Distributions of Induction Times. Crystal Growth and Design, 2022, 22, 3637-3645.	1.4	3
111	Surface characterization of bio-fillers from typical mollusk shell using computational algorithms. International Journal of Adhesion and Adhesives, 2018, 84, 48-53.	1.4	2
112	The growth and shrinkage of water droplets at the oil-solid interface. Journal of Colloid and Interface Science, 2021, 584, 738-748.	5.0	2
113	Investigating sizing induced surface alterations in crystalline powders using surface energy heterogeneity determination. Powder Technology, 2022, 395, 645-651.	2.1	2
114	Studying the impact of the pre-exponential factor on templated nucleation. Faraday Discussions, 2022, 235, 199-218.	1.6	2
115	Modified Voronoi Analysis of Spontaneous Formation of Interfacial Droplets on Immersed Oilâ€“Solid Substrates. Langmuir, 2020, 36, 5400-5407.	1.6	1
116	Determining Surface Energetics of Solid Surfaces. NATO Science for Peace and Security Series A: Chemistry and Biology, 2017, , 133-144.	0.5	1
117	Visualizing powder de-agglomeration upon impact with simultaneous flowing charge behaviour. , 2013, , .		0
118	A Novel Polyclonal Rabbit Immunoglobulin G Crystallisation Approach Using 3D Nanotemplate. International Journal of Chemical Engineering and Applications (IJCEA), 2016, 7, 369-372.	0.3	0
119	Rational synthesis of polymer coated inorganic nanoparticles-MWCNT hybrids via solvophobic effects. Carbon Trends, 2022, 6, 100141.	1.4	0
120	The heterogeneous nucleation of pimelic acid under the effect of a template: experimental research and molecular simulation. CrystEngComm, 2022, 24, 2825-2835.	1.3	0