FermÃ-n OtÃ¡lora

List of Publications by Year
in descending order

68
papers

1,976
citations

201674
27
h-index

265206
42
g-index

70
all docs

70
docs citations

70
times ranked

1809
citing authors

#	Article	IF	Citations
1	Formation of Chemical Gardens. Journal of Colloid and Interface Science, 2002, 256, 351-359.	9.4	185
2	Counterdiffusion methods applied to protein crystallization. Progress in Biophysics and Molecular Biology, 2009, 101, 26-37.	2.9	103
3	Formation of natural gypsum megacrystals in Naica, Mexico. Geology, 2007, 35, 327.	4.4	92
4	Three study cases of growth morphology in minerals: Halite, calcite and gypsum. Progress in Crystal Growth and Characterization of Materials, 2016, 62, 227-251.	4.0	87
5	Structure of tetragonal hen egg-white lysozyme at 0.94â€…Ã… from crystals grown by the counter-diffusion method. Acta Crystallographica Section D: Biological Crystallography, 2001, 57, 1119-1126.	2.5	86
6	Granada Crystallisation Box: a new device for protein crystallisation by counter-diffusion techniques. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 1638-1642.	2.5	75
7	DENSITY-DEPENDENT AGE OF FIRST REPRODUCTION AS A BUFFER AFFECTING PERSISTENCE OF SMALL POPULATIONS. , 2004, 14, 616-624.		70
8	Floater survival affects population persistence. The role of prey availability and environmental stochasticity. Oikos, 2005, 108, 523-534.	2.7	66
9	Nucleation and growth of the Naica giant gypsum crystals. Chemical Society Reviews, 2014, 43, 2013-2026.	38.1	63
10	Environmental stochasticity in dispersal areas can explain the â€˜mysteriousâ€™ disappearance of breeding populations. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 1265-1269.	2.6	61
11	Reinforced protein crystals. Materials Research Bulletin, 1998, 33, 1593-1598.	5.2	60
12	Topography and high resolution diffraction studies in tetragonal lysozyme. Journal of Crystal Growth, 1999, 196, 546-558.	1.5	59
13	Comparison of Different Experimental Techniques for the Measurement of Crystal Growth Kinetics. Crystal Growth and Design, 2008, 8, 4316-4323.	3.0	55
14	Direct and Noninvasive Observation of Two-Dimensional Nucleation Behavior of Protein Crystals by Advanced Optical Microscopy. Crystal Growth and Design, 2007, 7, 1980-1987.	3.0	54
15	Crystal growth studies in microgravity with the APCF. I. Computer simulation of transport dynamics. Journal of Crystal Growth, 1997, 182, 141-154.	1.5	49
16	Characterization of dislocations in protein crystals by means of synchrotron double-crystal topography. Journal of Applied Crystallography, 2004, 37, 67-71.	4.5	46
17	A supersaturation wave of protein crystallization. Journal of Crystal Growth, 2001, 232, 149-155.	1.5	44
18	Floater Dynamics Can Explain Positive Patterns of Densityâ€Dependent Fecundity in Animal Populations. American Naturalist, 2006, 168, 697-703.	2.1	35

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19	Direct Observation of Adsorption Sites of Protein Impurities and Their Effects on Step Advancement of Protein Crystals. Crystal Growth and Design, 2009, 9, 3062-3071.	3.0	35
20	Supersaturation patterns in counter-diffusion crystallisation methods followed by Machâ€“Zehnder interferometry. Journal of Crystal Growth, 1999, 196, 703-710.	1.5	34
21	Experimental evidence for the stability of the depletion zone around a growing protein crystal under microgravity. Acta Crystallographica Section D: Biological Crystallography, 2001, 57, 412-417.	2.5	34
22	Is Agarose an Impurity or an Impurity Filter? In Situ Observation of the Joint Gel/Impurity Effect on Protein Crystal Growth Kinetics. Crystal Growth and Design, 2008, 8, 3623-3629.	3.0	33
23	Crystallographic properties of the calcium phosphate mineral, brushite, by means of First Principles calculations. American Mineralogist, 2004, 89, 307-313.	1.9	32
24	Floater mortality within settlement areas can explain the Allee effect in breeding populations. Ecological Modelling, 2008, 213, 98-104.	2.5	32
25	Growth of lysozyme crystals under microgravity conditions in the LMS (STS-78) mission. Journal of Crystal Growth, 1999, 196, 649-664.	1.5	30
26	Influence of Charged Polypeptides on Nucleation and Growth of CaCO₃ Evaluated by Counterdiffusion Experiments. Crystal Growth and Design, 2013, 13, 3884-3891.	3.0	30
27	Crystallization and cryocrystallography inside X-ray capillaries. Journal of Applied Crystallography, 2001, 34, 365-370.	4.5	29
28	Crystal growth studies in microgravity with the APCF. II. Image analysis studies. Journal of Crystal Growth, 1997, 182, 155-167.	1.5	28
29	Computer model of the diffusion/reaction interplay in the gel acupuncture method. Journal of Crystal Growth, 1996, 169, 361-367.	1.5	27
30	Teaching Protein Crystallization by the Gel Acupuncture Method. Journal of Chemical Education, 1998, 75, 442.	2.3	23
31	Precise protein solubility determination by Laser confocal differential interference contrast microscopy. Journal of Crystal Growth, 2009, 311, 3479-3484.	1.5	22
32	Role of CaCO₃Â° Neutral Pair in Calcium Carbonate Crystallization. Crystal Growth and Design, 2016, 16, 4173-4177.	3.0	22
33	Role of Gravity in the Formation of Liesegang Patterns. The Journal of Physical Chemistry, 1996, 100, 8854-8860.	2.9	19
34	Lysozyme crystal growth kinetics in microgravity. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 1681-1689.	2.5	19
35	Protein crystal quality studies using rod-shaped crystals. Journal of Crystal Growth, 1996, 168, 93-98.	1.5	18
36	Can prey behaviour induce spatially synchronic aggregation of solitary predators?. Oikos, 2006, 113, 497-505.	2.7	16

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37	The role of mass transport in protein crystallization. Acta Crystallographica Section F, Structural Biology Communications, 2016, 72, 96-104.	0.8	15
38	A crystallographic study of crystalline casts and pseudomorphs from the 3.5â€...Ga Dresser Formation, Pilbara Craton (Australia). Journal of Applied Crystallography, 2018, 51, 1050-1058.	4.5	15
39	Diffusion limited aggregation. The role of surface diffusion. Physica A: Statistical Mechanics and Its Applications, 1991, 178, 415-420.	2.6	14
40	Counterdiffusion protein crystallisation in microgravity and its observation with PromISS (protein) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 165-169.	1.4	14
41	Hydrochemical and Mineralogical Evolution through Evaporitic Processes in Salar de Llamara Brines (Atacama, Chile). ACS Earth and Space Chemistry, 2020, 4, 882-896.	2.7	14
42	Crystal Growth in Geology. , 2015, , 1-43.		11
43	Mosaic spread characterization of microgravity-grown tetragonal lysozyme single crystals. Acta Crystallographica Section D: Biological Crystallography, 1999, 55, 644-649.	2.5	9
44	Protein crystal quality in diffusive environments and its evaluation. Journal of Crystal Growth, 2003, 247, 177-184.	1.5	9
45	Toward a Definition of X-ray Crystal Quality. Crystal Growth and Design, 2008, 8, 4284-4290.	3.0	9
46	On the Quality of Protein Crystals Grown under Diffusion Mass-transport Controlled Regime (I). Crystals, 2020, 10, 68.	2.2	9
47	When individuals senesce: the â€˜Florida effectâ€™ on stable populations of territorial, longâ€lived birds. Oikos, 2009, 118, 321-327.	2.7	8
48	The Formation of Manganese Dendrites as the Mineral Record of Flow Structures. , 1994, , 307-318.		8
49	A Comprehensive Methodology for Monitoring Evaporitic Mineral Precipitation and Hydrochemical Evolution of Saline Lakes: The Case of Lake Magadi Soda Brine (East African Rift Valley, Kenya). Crystal Growth and Design, 2022, 22, 2307-2317.	3.0	8
50	In Situ Observation of Elementary Growth Processes of Protein Crystals by Advanced Optical Microscopy. Protein and Peptide Letters, 2012, 19, 743-760.	0.9	7
51	Fractal trees and Horton's laws. Mathematical Geosciences, 1992, 24, 61-71.	0.9	6
52	Structure of concanavalin A at pH 8: bound solvent and crystal contacts. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 1048-1056.	2.5	6
53	Genesis of filamentary pyrite associated with calcite crystals. European Journal of Mineralogy, 2006, 17, 905-913.	1.3	6
54	Concentration distribution around a crystal growing under diffusional control; a computer simulation. Journal of Crystal Growth, 1992, 118, 160-162.	1.5	5

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55	A short overview on practical techniques for protein crystallization and a new approach using low intensity electromagnetic fields. Progress in Crystal Growth and Characterization of Materials, 2022, 68, 100559.	4.0	5
56	In-situmeasurement of rocking curves during lysozyme crystal growth. Acta Crystallographica Section D: Biological Crystallography, 1999, 55, 650-655.	2.5	4
57	<i>CRISTALES: a world to discover.</i> An exhibition for schools and universities. Journal of Applied Crystallography, 2015, 48, 1264-1275.	4.5	4
58	A Brownian model for crystal nucleation. Journal of Crystal Growth, 2013, 380, 247-255.	1.5	3
59	Equilibrium Shape of 2D Nuclei Obtained from Spiral Hillocks on {010} Form of Gypsum. Crystal Growth and Design, 2020, 20, 1526-1530.	3.0	3
60	Macromolecular Crystalsâ€”Growth and Characterization. , 2004, , 369-390.		3
61	Fluid patterns in the diffusive field around a growing crystal. Journal of Crystal Growth, 1993, 128, 163-166.	1.5	2
62	Efecto sobre la reacciÃ³n de oxÃgeno de la forma y la microestructura del contacto electrodo-electrolito de electrodos a difusiÃ³n interna en Celdas de Combustible de Ã“xido SÃ³lido (SOFC). Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 1999, 38, 625-629.	1.9	2
63	High Resolution Imaging as a Characterization Tool for Biological Crystals. Annals of the New York Academy of Sciences, 2004, 1027, 48-55.	3.8	1
64	Aggregation and crystallisation in space. Europhysics News, 2008, 39, 25-27.	0.3	1
65	Protein Experiment: Scientific Data Processing Platform for On-Flight Experiment Tuning. Microgravity Science and Technology, 2012, 24, 327-334.	1.4	1
66	FormaciÃ³n de megacristales naturales de yeso en Naica, MÃ©xico. Boletin De La Sociedad Geologica Mexicana, 2007, 59, 63-70.	0.3	1
67	THE ANISOTROPY OF ON-LATTICE SIMULATIONS OF AGGREGATE GROWTH. Fractals, 1993, 01, 867-874.	3.7	0
68	THE ANISOTROPY OF ON-LATTICE SIMULATIONS OF AGGREGATE GROWTH. , 1994, , 493-500.		0