Masahide Sato

List of Publications by Year
in descending order

75 papers	717 citations	567281 15 h-index	610901 24 g-index
75 all docs	75 docs citations	75 times ranked	205 citing authors

#	Article	IF	Citations
1	Instabilities of steps induced by the drift of adatoms and effect of the step permeability. Physical Review B, 2000, 62, 8452-8472.	3.2	73
2	Morphological instability caused by asymmetry in step kinetics. Physical Review B, 1995, 51, 11172-11175.	3.2	66
3	Growth of step bunches formed by the drift of adatoms. Surface Science, 1999, 442, 318-328.	1.9	47
4	Fluctuations and instabilities of steps in the growth and sublimation of crystals. Journal of Crystal Growth, 1995, 146, 164-170.	1.5	36
5	Control of Chaotic Wandering of an Isolated Step by the Drift of Adatoms. Physical Review Letters, 1998, 80, 4233-4236.	7.8	35
6	Growth law of step bunches induced by the Ehrlichâ€“Schwoebel effect in growth. Surface Science, 2001, 493, 494-498.	1.9	33
7	Wandering Instability of an Isolated Step with Direct Electric Current. Journal of the Physical Society of Japan, 1996, 65, 2146-2151.	1.6	27
8	Repulsion-mediated step wandering on a Si(001) vicinal face. Physical Review B, 2003, 67, .	3.2	26
9	Nonlinear Effect in Step Bunching Caused by Electric Current. Journal of the Physical Society of Japan, 1996, 65, 1515-1518.	1.6	25
10	Wandering and Bunching Instabilities of Steps Described By Nonlinear Evolution Equations. Surface Review and Letters, 1998, 05, 841-849.	1.1	25
11	Hierarchical Bunching of Steps in a Conserved System. Journal of the Physical Society of Japan, 1998, 67, 3675-3678.	1.6	23
12	Step wandering induced by the drift of adatoms in a conserved system. Physical Review B, 2002, 65, .	3.2	19
13	Group chase and escape with some fast chasers. Physical Review E, 2012, 86, 067102.	2.1	19
14	Pattern formation in the instability of a vicinal surface by the drift of adatoms. Physical Review E, 1999, 60, 7120-7125.	2.1	15
15	Step bunching induced by drift of adatoms with anisotropic surface diffusion. Journal of Crystal Growth, 2002, 237-239, 43-46.	1.5	15
16	Chasing and escaping by three groups of species. Physical Review E, 2012, 85, 066102.	2.1	14
17	Formation of a crystal of Brownian particles under a uniform external force. Physical Review E, 2013, 87, .	2.1	13
18	Kinematical Bound States of Steps Caused by Asymmetry in Step Kinetics. Journal of the Physical Society of Japan, 1997, 66, 1054-1062.	1.6	10

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19	Growth of Step Bunches on a Si(001) Vicinal Face with Drift of Adatoms. Journal of the Physical Society of Japan, 2004, 73, 1827-1832.	1.6	10
20	Evaporation and impingement effects on drift-induced step instabilities on a Si(001) vicinal face. Physical Review B, 2005, 72, .	3.2	8
21	Effect of step permeability on step instabilities due to alternation of kinetic coefficients on a growing vicinal face. European Physical Journal B, 2007, 59, 311-318.	1.5	8
22	Crystallization of Brownian Particles from Walls Induced by a Uniform External Force. Journal of the Physical Society of Japan, 2013, 82, 084804.	1.6	8
23	Effect of container shape and walls on solidification of Brownian particles in a narrow system. Physical Review E, 2014, 89, 042401.	2.1	8
24	Change of wandering pattern with anisotropy in step kinetics. Journal of Crystal Growth, 1999, 198-199, 38-42.	1.5	7
25	Step Bunching with Alternation of Structural Parameters. Journal of the Physical Society of Japan, 2003, 72, 2850-2855.	1.6	7
26	Ordering of Brownian particles from walls due to an external force. Journal of Crystal Growth, 2014, 401, 87-92.	1.5	7
27	Step-bunching instability of growing interfaces between ice and supercooled water. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2115955119.	7.1	7
28	Step Instabilities on a Vicinal Face Induced by Flow in Solution. Journal of the Physical Society of Japan, 2010, 79, 064606.	1.6	6
29	Formation of finger-like step patterns on a Si(111) vicinal face. Journal of Crystal Growth, 2011, 318, 14-17.	1.5	6
30	Pattern formation of a step induced by a moving linear source. Physical Review B, 2011, 84, .	3.2	6
31	Self-Assembly Formed by Spherical Patchy Particles with Long-Range Attraction. Journal of the Physical Society of Japan, 2019, 88, 104801.	1.6	6
32	Effect of Patch Area and Interaction Length on Clusters and Structures Formed by One-Patch Particles in Thin Systems. ACS Omega, 2020, 5, 28812-28822.	3.5	6
33	Crystallization of Brownian particles in thin systems constrained by walls. Physical Review E, 2014, 90, 032404.	2.1	5
34	Gravitational Tempering in Colloidal Epitaxy To Reduce Defects Further. Crystal Growth and Design, 2014, 14, 2083-2086.	3.0	5
35	Colloidal crystallization on tilted substrates under gravitational fields. Journal of Crystal Growth, 2014, 401, 905-909.	1.5	5
36	Two-Dimensional Crystal Structure Formed by Two Components of DNA Nanoparticles on a Substrate. Journal of the Physical Society of Japan, 2016, 85, 074605.	1.6	5

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37	Drift-induced step instabilities due to the gap in the diffusion coefficient. Journal of Crystal Growth, 2005, 275, e129-e134.	1.5	4
38	Effect of Two-Dimensionality on Step Bunching on a Si(001) Vicinal Face. Journal of the Physical Society of Japan, 2006, 75, 043601.	1.6	4
39	Growth Law of Bunch Size in Step Bunching Induced by Flow in Solution. Journal of the Physical Society of Japan, 2011, 80, 024604.	1.6	4
40	Effect of immobile impurities on motion of steps on a vicinal face. Physical Review E, 2011, 84, 061604.	2.1	4
41	Crystallization of Brownian Particles in a Pyramidal Pit by a Uniform External Force. Journal of the Physical Society of Japan, 2015, 84, 044601.	1.6	4
42	Effect of density change at crystallization on a one-dimensional heat balance equation at solidâ€“liquid interface. Japanese Journal of Applied Physics, 2019, 58, 045506.	1.5	4
43	Effect of the Interaction Length on Clusters Formed by Spherical One-Patch Particles on Flat Planes. Langmuir, 2021, 37, 4213-4221.	3.5	4
44	Motion of step pairs during drift-induced step bunching on a Si(001) vicinal face. Journal of Crystal Growth, 2007, 303, 85-89.	1.5	3
45	Effect of Flow in Solution on Motion of Steps during Solution Growth. Journal of the Physical Society of Japan, 2011, 80, 074606.	1.6	3
46	Step bunching induced by flow in solution. Journal of Crystal Growth, 2011, 318, 5-9.	1.5	3
47	Effect of immobile impurities on two-dimensional nucleation. Physical Review E, 2011, 84, 021605.	2.1	3
48	Change in the branch period of the step pattern formed by a moving linear sourceâ€”initial coarsening and effect of an abrupt change in the velocity. Journal of Crystal Growth, 2013, 362, 6-12.	1.5	3
49	Growth of permeable step bunches formed by drift of adatoms. Surface Science, 2001, 493, 480-484.	1.9	2
50	Drift-Induced Step Instabilities on Si(111) Vicinal Face near 1Ã—1â†”7Ã—7 Transition Temperature. Journal of the Physical Society of Japan, 2007, 76, 064602.	1.6	2
51	Effect of alternation of kinetic coefficients on step instabilities on Si(001) vicinal face. Journal of Crystal Growth, 2008, 310, 1371-1375.	1.5	2
52	Two-Dimensional Motion of Unstable Steps Induced by Flow in Solution. Journal of the Physical Society of Japan, 2011, 80, 074604.	1.6	2
53	Formation of Step Bunches Induced by Flow in Solution. Journal of the Physical Society of Japan, 2012, 81, 064601.	1.6	2
54	Dependence of the Apex Angle of an Inverted Pyramidal-Shaped Container on Crystallization of Brownian Particles. Journal of the Physical Society of Japan, 2015, 84, 114601.	1.6	2

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55	Period of a comblike pattern controlled by atom supply and noise. Physical Review E, 2015, 91, 012409.	2.1	2
56	Step Bunching Induced by Immobile Impurities in a Surface Diffusion Field. Journal of the Physical Society of Japan, 2017, 86, 114603.	1.6	2
57	Self-Assembly of Two-Dimensional Patchy Colloidal Dumbbells. Journal of the Physical Society of Japan, 2018, 87, 064601.	1.6	2
58	Effect of evaporation on step bunching induced by impurities. Physical Review E, 2018, 97, 062801.	2.1	2
59	Clusters formed by dumbbell-like one-patch particles confined in thin systems. Scientific Reports, 2021, 11, 18078.	3.3	2
60	INSTABILITIES OF PERMEABLE STEPS INDUCED BY THE DRIFT OF ADATOMS. Surface Review and Letters, 2000, 07, 607-611.	1.1	1
61	Step wandering on Si(111) vicinal face near the1Ã—1â†”7Ã—7transition temperature with drift of adatoms parallel to steps. Physical Review E, 2008, 77, 062601.	2.1	1
62	Cluster diffusion on two-dimensional surface with immobile impurities. Journal of Crystal Growth, 2014, 401, 504-507.	1.5	1
63	Dependence of crystallization of Brownian particles by sedimentation on the force direction. Japanese Journal of Applied Physics, 2015, 54, 115503.	1.5	1
64	Removal of defects in a colloidal crystal grown in an inverted pyramidal container by changing the external force. Japanese Journal of Applied Physics, 2015, 54, 110301.	1.5	1
65	Relation between the Step Pattern and the Velocity of the Moving Linear Adatom Source. E-Journal of Surface Science and Nanotechnology, 2015, 13, 269-274.	0.4	1
66	Effect of direction of an external force on crystallization of colloidal particles in a V-shaped groove by sedimentation. Japanese Journal of Applied Physics, 2016, 55, 095601.	1.5	1
67	Three-Dimensional Lattice Structure Formed in a Binary System with DNA Nanoparticles. Journal of the Physical Society of Japan, 2017, 86, 064601.	1.6	1
68	Two-dimensional structures formed in a binary system of DNA nanoparticles with a short-range interaction potential. Japanese Journal of Applied Physics, 2018, 57, 125002.	1.5	1
69	Effect of the Surface Diffusion and Evaporation of Impurities on Step Bunching Induced by Impurities. Journal of the Physical Society of Japan, 2019, 88, 114801.	1.6	1
70	Step Bunching Induced by the Drift of Adatoms.. Hyomen Kagaku, 1999, 20, 824-829.	0.0	1
71	Effect of impingement and evaporation on drift-induced step instabilities on Si(111) vicinal face near transition temperature. Journal of Crystal Growth, 2008, 310, 1376-1379.	1.5	0
72	Step Instabilities on Si(111) Vicinal Face near 1Ã—1 â†”7 Ã—7 Transition Temperature during Sublimation. Journal of the Physical Society of Japan, 2009, 78, 124602.	1.6	0

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73	Two mechanisms forming a comblike step pattern induced by a moving linear adatom source. Physical Review E, 2017, 95, 032803.	2.1	0
74	Effect of difference in interaction strength on two-dimensional lattice structure in a binary system with DNA nanoparticles. Japanese Journal of Applied Physics, 2017, 56, 075001.	1.5	0
75	Effect of impurities on tiling in a two-dimensional dodecagonal quasicrystal. Japanese Journal of Applied Physics, 2022, 61, 045504.	1.5	0