Francesco Montalenti

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

150
papers

3,753
citations

30
h-index

56
g-index

153
ext. papers

4.4
ext. citations

4.4
avg, IF

L-index

#	Paper	IF	Citations
150	Stress-Induced Acceleration and Ordering in Solid-State Dewetting <i>Physical Review Letters</i> , 2022 , 128, 026101	7.4	O
149	Atomic-scale insights on the formation of ordered arrays of edge dislocations in Ge/Si(001) films via molecular dynamics simulations <i>Scientific Reports</i> , 2022 , 12, 3235	4.9	2
148	Machine learning potential for interacting dislocations in the presence of free surfaces <i>Scientific Reports</i> , 2022 , 12, 3760	4.9	O
147	Nature and Shape of Stacking Faults in 3C-SiC by Molecular Dynamics Simulations. <i>Physica Status Solidi (B): Basic Research</i> , 2021 , 258, 2000598	1.3	0
146	Thermodynamic driving force in the formation of hexagonal-diamond Si and Ge nanowires. <i>Applied Surface Science</i> , 2021 , 545, 148948	6.7	2
145	Prismatic Ge-rich inclusions in the hexagonal SiGe shell of GaP-Si-SiGe nanowires by controlled faceting. <i>Nanoscale</i> , 2021 , 13, 9436-9445	7.7	
144	Faceting of Si and Ge crystals grown on deeply patterned Si substrates in the kinetic regime: phase-field modelling and experiments. <i>Scientific Reports</i> , 2021 , 11, 18825	4.9	1
143	Sunburst pattern by kinetic segregation in core-shell nanowires: A phase-field study. <i>Applied Surface Science</i> , 2020 , 517, 146056	6.7	4
142	Self-Assembly of Nanovoids in Si Microcrystals Epitaxially Grown on Deeply Patterned Substrates. <i>Crystal Growth and Design</i> , 2020 , 20, 2914-2920	3.5	2
141	The origin and nature of killer defects in 3C-SiC for power electronic applications by a multiscale atomistic approach. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 8380-8392	7.1	9
140	Selective Area Epitaxy of GaAs/Ge/Si Nanomembranes: A Morphological Study. <i>Crystals</i> , 2020 , 10, 57	2.3	4
139	Kinetic Control of Morphology and Composition in Ge/GeSn Core/Shell Nanowires. <i>ACS Nano</i> , 2020 , 14, 2445-2455	16.7	12
138	Reduction of threading dislocation density beyond the saturation limit by optimized reverse grading. <i>Physical Review Materials</i> , 2020 , 4,	3.2	10
137	Controlling the relaxation mechanism of low strain Si1\(\text{IGex/Si(001)}\) layers and reducing the threading dislocation density by providing a preexisting dislocation source. <i>Journal of Applied Physics</i> , 2020 , 128, 215305	2.5	4
136	Computational Analysis of Low-Energy Dislocation Configurations in Graded Layers. <i>Crystals</i> , 2020 , 10, 661	2.3	3
135	Reentrant Behavior of the Density vs. Temperature of Indium Islands on GaAs(111)A. <i>Nanomaterials</i> , 2020 , 10,	5.4	1
134	Molecular dynamics simulations of extended defects and their evolution in 3CBiC by different potentials. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2020 , 28, 015002	2	8

(2017-2019)

Structure and Stability of Partial Dislocation Complexes in 3C-SiC by Molecular Dynamics Simulations. <i>Materials</i> , 2019 , 12,	3.5	6
Temperature-Dependent Stability of Polytypes and Stacking Faults in SiC: Reconciling Theory and Experiments. <i>Physical Review Applied</i> , 2019 , 12,	4.3	17
Growth and Coalescence of 3C-SiC on Si(111) Micro-Pillars by a Phase-Field Approach. <i>Materials</i> , 2019 , 12,	3.5	5
Dynamics of crosshatch patterns in heteroepitaxy. <i>Physical Review B</i> , 2019 , 100,	3.3	6
Motion of crystalline inclusions by interface diffusion in the proximity of free surfaces. <i>Journal of Nanoparticle Research</i> , 2019 , 21, 1	2.3	1
Competition Between Kinetics and Thermodynamics During the Growth of Faceted Crystal by Phase Field Modeling. <i>Physica Status Solidi (B): Basic Research</i> , 2019 , 256, 1800518	1.3	17
Slip trace-induced terrace erosion. <i>Applied Surface Science</i> , 2019 , 466, 454-458	6.7	
Growth kinetics and morphological analysis of homoepitaxial GaAs fins by theory and experiment. <i>Physical Review Materials</i> , 2018 , 2,	3.2	20
Alignment control of self-ordered three dimensional SiGe nanodots. <i>Semiconductor Science and Technology</i> , 2018 , 33, 114014	1.8	1
Dislocation-Free SiGe/Si Heterostructures. <i>Crystals</i> , 2018 , 8, 257	2.3	13
Misfit-Dislocation Distributions in Heteroepitaxy: From Mesoscale Measurements to Individual Defects and Back. <i>Physical Review Applied</i> , 2018 , 10,	4.3	6
Phase-field simulations of faceted Ge/Si-crystal arrays, merging into a suspended film. <i>Applied Surface Science</i> , 2017 , 391, 33-38	6.7	16
Fully coherent Ge islands growth on Si nano-pillars by selective epitaxy. <i>Materials Science in Semiconductor Processing</i> , 2017 , 70, 30-37	4.3	1
Morphological Evolution of Pit-Patterned Si(001) Substrates Driven by Surface-Energy Reduction. <i>Nanoscale Research Letters</i> , 2017 , 12, 554	5	23
Strain Engineering in Highly Mismatched SiGe/Si Heterostructures. <i>Materials Science in Semiconductor Processing</i> , 2017 , 70, 117-122	4.3	7
Structure, interface abruptness and strain relaxation in self-assisted grown InAs/GaAs nanowires. <i>Applied Surface Science</i> , 2017 , 395, 29-36	6.7	4
A self-ordered, body-centered tetragonal superlattice of SiGe nanodot growth by reduced pressure CVD. <i>Nanotechnology</i> , 2017 , 28, 485303	3.4	5
Three-dimensional SiGe/Si heterostructures: Switching the dislocation sign by substrate under-etching. <i>Physical Review Materials</i> , 2017 , 1,	3.2	4
	Simulations. <i>Materials</i> , 2019, 12, Temperature-Dependent Stability of Polytypes and Stacking Faults in SiC: Reconciling Theory and Experiments. <i>Physical Review Applied</i> , 2019, 12, Growth and Coalescence of 3C-SiC on Si(111) Micro-Pillars by a Phase-Field Approach. <i>Materials</i> , 2019, 12, Dynamics of crosshatch patterns in heteroepitaxy. <i>Physical Review B</i> , 2019, 100, Motion of crystalline inclusions by interface diffusion in the proximity of free surfaces. <i>Journal of Nanoparticle Research</i> , 2019, 21, 1 Competition Between Kinetics and Thermodynamics During the Growth of Faceted Crystal by Phase Field Modeling. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800518 Slip trace-induced terrace erosion. <i>Applied Surface Science</i> , 2019, 466, 454-458 Growth kinetics and morphological analysis of homoepitaxial GaAs fins by theory and experiment. <i>Physical Review Materials</i> , 2018, 2, Alignment control of self-ordered three dimensional SiGe nanodots. <i>Semiconductor Science and Technology</i> , 2018, 33, 114014 Dislocation-Free SiGe/Si Heterostructures. <i>Crystals</i> , 2018, 8, 257 Misfit-Dislocation Distributions in Heteroepitaxy: From Mesoscale Measurements to Individual Defects and Back. <i>Physical Review Applied</i> , 2018, 10, Phase-Field simulations of faceted Ge/Si-crystal arrays, merging into a suspended film. <i>Applied Surface Science</i> , 2017, 391, 33-38 Fully coherent Ge islands growth on Si nano-pillars by selective epitaxy. <i>Materials Science in Semiconductor Processing</i> , 2017, 70, 30-37 Morphological Evolution of Pit-Patterned Si(001) Substrates Driven by Surface-Energy Reduction. <i>Nanoscale Research Letters</i> , 2017, 12, 554 Strain Engineering in Highly Mismatched SiGe/Si Heterostructures. <i>Materials Science in Semiconductor Processing</i> , 2017, 70, 117-122 Structure, interface abruptness and strain relaxation in self-assisted grown InAs/GaAs nanowires. <i>Applied Surface Science</i> , 2017, 395, 29-36 A self-ordered, body-centered tetragonal superlattice of SiGe nanodot growth by reduced pressure CVD. <i></i>	Simulations. Materials, 2019, 12, Temperature-Dependent Stability of Polytypes and Stacking Faults in SIC: Reconciling Theory and Experiments. Physical Review Applied, 2019, 12, Growth and Coalescence of 3C-SIC on Si(111) Micro-Pillars by a Phase-Field Approach. Materials, 2019, 12, Dynamics of crosshatch patterns in heteroepitaxy. Physical Review B, 2019, 100, Motion of crystalline inclusions by interface diffusion in the proximity of free surfaces. Journal of Nanoparticle Research, 2019, 21, 1 Competition Between Kinetics and Thermodynamics During the Growth of Faceted Crystal by Phase Field Modeling. Physica Status Solidi (B): Basic Research, 2019, 256, 1800518 Slip trace-induced terrace erosion. Applied Surface Science, 2019, 466, 454-458 Growth kinetics and morphological analysis of homoepitaxial GaAs fins by theory and experiment. Physical Review Materials, 2018, 2, Alignment control of self-ordered three dimensional SiGe nanodots. Semiconductor Science and Technology, 2018, 33, 114014 Dislocation-Free SiGe/Si Heterostructures. Crystals, 2018, 8, 257 2.3 Misfit-Dislocation Distributions in Heteroepitaxy: From Mesoscale Measurements to Individual Defects and Back. Physical Review Applied, 2018, 10, Phase-Field simulations of Faceted Ge/Si-crystal arrays, merging into a suspended film. Applied Surface Science, 2017, 391, 33-38 Fully coherent Ge islands growth on Si nano-pillars by selective epitaxy. Materials Science in Semiconductor Processing, 2017, 70, 30-37 Morphological Evolution of Pik-Patterned Si(001) Substrates Driven by Surface-Energy Reduction. Nanoscale Research Letters, 2017, 12, 554 Strain Engineering in Highly Mismatched SiGe/Si Heterostructures. Materials Science in Semiconductor Processing, 2017, 70, 117-122 A self-ordered, body-centered tetragonal superlattice of SiGe nanodot growth by reduced pressure CVD. Nanotechnology, 2017, 28, 485303 Three-dimensional SiGe/Si heterostructures: Switching the dislocation sign by substrate

115	Modeling the competition between elastic and plastic relaxation in semiconductor heteroepitaxy: From cyclic growth to flat films. <i>Physical Review B</i> , 2016 , 94,	3.3	14
114	Elastic and Plastic Stress Relaxation in Highly Mismatched SiGe/Si Crystals. MRS Advances, 2016 , 1, 3403	-3 <i>4</i> 08	1
113	Continuum modelling of semiconductor heteroepitaxy: an applied perspective. <i>Advances in Physics: X</i> , 2016 , 1, 331-367	5.1	13
112	From plastic to elastic stress relaxation in highly mismatched SiGe/Si heterostructures. <i>Acta Materialia</i> , 2016 , 114, 97-105	8.4	7
111	Photodetection in Hybrid Single-Layer Graphene/Fully Coherent Germanium Island Nanostructures Selectively Grown on Silicon Nanotip Patterns. <i>ACS Applied Materials & Discourse (Material & Discours)</i> 1, 2017-26	9.5	25
110	Temperature-controlled coalescence during the growth of Ge crystals on deeply patterned Si substrates. <i>Journal of Crystal Growth</i> , 2016 , 440, 86-95	1.6	11
109	Highly Mismatched, Dislocation-Free SiGe/Si Heterostructures. Advanced Materials, 2016, 28, 884-8	24	30
108	Enhancing elastic stress relaxation in SiGe/Si heterostructures by Si pillar necking. <i>Applied Physics Letters</i> , 2016 , 109, 182112	3.4	3
107	Anisotropic extended misfit dislocations in overcritical SiGe films by local substrate patterning. <i>Nanotechnology</i> , 2016 , 27, 425301	3.4	1
106	Reduced-Pressure Chemical Vapor Deposition Growth of Isolated Ge Crystals and Suspended Layers on Micrometric Si Pillars. <i>ACS Applied Materials & Amp; Interfaces</i> , 2016 , 8, 26374-26380	9.5	9
105	Dynamics of pit filling in heteroepitaxy via phase-field simulations. <i>Physical Review B</i> , 2016 , 94,	3.3	14
104	Faceting of Equilibrium and Metastable Nanostructures: A Phase-Field Model of Surface Diffusion Tackling Realistic Shapes. <i>Crystal Growth and Design</i> , 2015 , 15, 2787-2794	3.5	54
103	InAs/GaAs Sharply Defined Axial Heterostructures in Self-Assisted Nanowires. <i>Nano Letters</i> , 2015 , 15, 3677-83	11.5	16
102	Imaging Structure and Composition Homogeneity of 300 mm SiGe Virtual Substrates for Advanced CMOS Applications by Scanning X-ray Diffraction Microscopy. <i>ACS Applied Materials & Material</i>	9.5	23
101	Engineered Coalescence by Annealing 3D Ge Microstructures into High-Quality Suspended Layers on Si. <i>ACS Applied Materials & Amp; Interfaces</i> , 2015 , 7, 19219-25	9.5	23
100	Delayed plastic relaxation limit in SiGe islands grown by Ge diffusion from a local source. <i>Journal of Applied Physics</i> , 2015 , 117, 104309	2.5	1
99	Local uniaxial tensile strain in germanium of up to 4% induced by SiGe epitaxial nanostructures. <i>Applied Physics Letters</i> , 2015 , 107, 083101	3.4	16
98	Fully coherent growth of Ge on free-standing Si(001) nanomesas. <i>Physical Review B</i> , 2014 , 89,	3.3	30

(2011-2014)

97	Fine control of plastic and elastic relaxation in Ge/Si vertical heterostructures. <i>Journal of Applied Physics</i> , 2014 , 116, 104306	2.5	21	
96	Straining Ge bulk and nanomembranes for optoelectronic applications: a systematic numerical analysis. <i>Semiconductor Science and Technology</i> , 2014 , 29, 095012	1.8	13	
95	Hydrostatic strain enhancement in laterally confined SiGe nanostripes. Physical Review B, 2013, 88,	3.3	12	
94	One-dimensional Ge nanostructures on Si(001) and Si(1 1 10): Dominant role of surface energy. <i>Comptes Rendus Physique</i> , 2013 , 14, 542-552	1.4	16	
93	Onset of vertical threading dislocations in Si1\(\text{IGex/Si}\) (001) at a critical Ge concentration. <i>APL Materials</i> , 2013 , 1, 052109	5.7	13	
92	Unexpected Dominance of Vertical Dislocations in High-Misfit Ge/Si(001) Films and Their Elimination by Deep Substrate Patterning (Adv. Mater. 32/2013). <i>Advanced Materials</i> , 2013 , 25, 4407-44	0 7/ 1	2	
91	Unexpected dominance of vertical dislocations in high-misfit ge/si(001) films and their elimination by deep substrate patterning. <i>Advanced Materials</i> , 2013 , 25, 4408-12	24	47	
90	Onset of plastic relaxation in the growth of Ge on Si(001) at low temperatures: Atomic-scale microscopy and dislocation modeling. <i>Physical Review B</i> , 2013 , 88,	3.3	11	
89	Self-organized evolution of Ge/Si(001) into intersecting bundles of horizontal nanowires during annealing. <i>Applied Physics Letters</i> , 2013 , 103, 083109	3.4	15	
88	Anomalous smoothing preceding island formation during growth on patterned substrates. <i>Physical Review Letters</i> , 2012 , 109, 156101	7.4	34	
87	Monolithic growth of ultrathin Ge nanowires on Si(001). Physical Review Letters, 2012, 109, 085502	7.4	73	
86	Density functional study of the decomposition pathways of SiHland GeHlat the Si(100) and Ge(100) surfaces. <i>Journal of Physics Condensed Matter</i> , 2012 , 24, 104002	1.8	1	
85	Misfit dislocation gettering by substrate pit-patterning in SiGe films on Si(001). <i>Applied Physics Letters</i> , 2012 , 101, 013119	3.4	11	
84	Formation of Ge nanoripples on vicinal Si (1110): from Stranski-Krastanow seeds to a perfectly faceted wetting layer. <i>Physical Review Letters</i> , 2012 , 108, 055503	7.4	37	
83	Stability of Ge on Si (1 1 10) surfaces and the role of dimer tilting. <i>Physical Review B</i> , 2012 , 85,	3.3	22	
82	Assessing the composition of hetero-epitaxial islands via morphological analysis: an analytical model matching GeSi/Si(001) data. <i>Journal of Physics Condensed Matter</i> , 2012 , 24, 104018	1.8	9	
81	Dislocation engineering in SiGe heteroepitaxial films on patterned Si (001) substrates. <i>Applied Physics Letters</i> , 2011 , 98, 121908	3.4	9	
80	Self-Ordering of Misfit Dislocation Segments in Epitaxial SiGe Islands on Si(001). <i>Journal of Applied Physics</i> , 2011 , 110, 044310	2.5	5	

79	Modeling the evolution of germanium islands on silicon(001) thin films 2011 , 211-246		3
78	Strained MOSFETs on ordered SiGe dots. <i>Solid-State Electronics</i> , 2011 , 65-66, 81-87	1.7	2
77	Assessing the delay of plastic relaxation onset in SiGe islands grown on pit-patterned Si(001) substrates. <i>Applied Physics Letters</i> , 2011 , 99, 033106	3.4	19
76	How pit facet inclination drives heteroepitaxial island positioning on patterned substrates. <i>Physical Review B</i> , 2011 , 84,	3.3	37
75	Temperature-dependent evolution of the wetting layer thickness during Ge deposition on Si(001). <i>Nanotechnology</i> , 2011 , 22, 285704	3.4	15
74	Si/Ge exchange mechanisms at the Ge(105) surface. <i>Physical Review B</i> , 2010 , 81,	3.3	6
73	Self-assembled GaAs islands on Si by droplet epitaxy. <i>Applied Physics Letters</i> , 2010 , 97, 053101	3.4	18
72	Collective shape oscillations of SiGe islands on pit-patterned Si(001) substrates: a coherent-growth strategy enabled by self-regulated intermixing. <i>Physical Review Letters</i> , 2010 , 105, 166102	7.4	29
71	Optimal Growth Conditions for Selective Ge Islands Positioning on Pit-Patterned Si(001). <i>Nanoscale Research Letters</i> , 2010 , 5, 1873-7	5	12
70	Aspect-ratio-dependent driving force for nonuniform alloying in Stranski-Krastanow islands. <i>Physical Review B</i> , 2009 , 80,	3.3	21
69	Crystallinity and microstructure in Si films grown by plasma-enhanced chemical vapor deposition: A simple atomic-scale model validated by experiments. <i>Applied Physics Letters</i> , 2009 , 94, 051904	3.4	16
68	Ab initio study of the diffusion and decomposition pathways of SiHx species on Si(100). <i>Physical Review B</i> , 2009 , 79,	3.3	14
67	Key role of the wetting layer in revealing the hidden path of Ge/Si(001) Stranski-Krastanow growth onset. <i>Physical Review B</i> , 2009 , 80,	3.3	87
66	A fast computational method for determining equilibrium concentration profiles in intermixed nanoislands. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 084217	1.8	9
65	Strain and strain-release engineering at epitaxial SiGe islands on Si(0 0 1) for microelectronic applications. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2009 , 159-160, 90-94	3.1	8
64	Phenomenological model of nanocrystalline silicon film formation by plasma-enhanced chemical vapor deposition. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2009 , 45, 322-327	0.6	
63	Enhanced relaxation and intermixing in Ge islands grown on pit-patterned Si(001) substrates. <i>Physical Review Letters</i> , 2009 , 102, 025502	7.4	78
62	Atomistic approach for Boron Transient Enhanced Diffusion and clustering 2008,		2

(2006-2008)

61	Understanding the elastic relaxation mechanisms of strain in Ge islands on pit-patterned Si(001) substrates. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 454217	1.8	12	
60	Intermixing in heteroepitaxial islands: fast, self-consistent calculation of the concentration profile minimizing the elastic energy. <i>New Journal of Physics</i> , 2008 , 10, 083039	2.9	29	
59	Modeling the plastic relaxation onset in realistic SiGe islands on Si(001). <i>Physical Review B</i> , 2008 , 78,	3.3	55	
58	Thermal-hydrogen promoted selective desorption and enhanced mobility of adsorbed radicals in silicon film growth. <i>Physical Review Letters</i> , 2008 , 100, 046105	7.4	15	
57	First principles study of GeBi exchange mechanisms at the Si(001) surface. <i>Applied Physics Letters</i> , 2008 , 92, 191908	3.4	21	
56	Detailed Analysis of the Shape-dependent Deformation Field in 3D Ge Islands 2008 , 421-438		10	
55	A multiscale model of the plasma assisted deposition of crystalline silicon. <i>Surface and Coatings Technology</i> , 2007 , 201, 8863-8867	4.4	8	
54	Interaction of SiHx precursors with hydrogen-covered Si surfaces: Impact dynamics and adsorption sites. <i>Surface Science</i> , 2007 , 601, 3970-3973	1.8	4	
53	Vertical and lateral ordering of Ge islands grown on Si(001): theory and experiments. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 225001	1.8	16	
52	Quantitative estimate of H abstraction by thermal SiH3 on hydrogenated Si(001)(21). <i>Physical Review B</i> , 2007 , 75,	3.3	18	
51	Atomic-scale modeling of next-layer nucleation and step flow at the Ge(105) rebonded-step surface. <i>Physical Review B</i> , 2007 , 75,	3.3	8	
50	Delayed Plastic Relaxation on Patterned Si Substrates: Coherent SiGe Pyramids with Dominant {111} Facets. <i>Physical Review Letters</i> , 2007 , 98,	7.4	91	
49	Critical shape and size for dislocation nucleation in Si1-xGex islands on Si(001). <i>Physical Review Letters</i> , 2007 , 99, 235505	7.4	48	
48	Accurate and analytical strain mapping at the surface of Ge/Si(0 0 1) islands by an improved flat-island approximation. <i>Surface Science</i> , 2006 , 600, 4777-4784	1.8	16	
47	Impact-driven effects in thin-film growth: steering and transient mobility at the Ag(110) surface. <i>Nanotechnology</i> , 2006 , 17, 3556-62	3.4	6	
46	Multiscale modeling of island nucleation and growth during Cu(100) homoepitaxy. <i>Physical Review B</i> , 2006 , 73,	3.3	10	
45	Self-ordering of a Ge island single layer induced by Si overgrowth. <i>Physical Review Letters</i> , 2006 , 96, 10	61,02	42	
44	Spontaneous Ge island ordering promoted by partial silicon capping. <i>Materials Science in Semiconductor Processing</i> , 2006 , 9, 823-827	4.3		

43	Binding sites for SiH2/Si(0 0 1): A combined ab initio, tight-binding, and classical investigation. <i>Surface Science</i> , 2006 , 600, 4445-4453	1.8	7
42	Accelerated Molecular Dynamics Methods 2005 , 629-648		12
41	Atomistic modeling of step formation and step bunching at the Ge(105) surface. <i>Surface Science</i> , 2005 , 591, 23-31	1.8	19
40	Atomistic simulation of a 60½ shuffle dislocation segment migrating in a Ge/SiGe(001) epitaxial film. Journal of Physics Condensed Matter, 2005 , 17, 7505-7515	1.8	7
39	Strain-induced ordering of small Ge islands in clusters at the surface of multilayered Si L e nanostructures. <i>Applied Physics Letters</i> , 2005 , 87, 261919	3.4	36
38	Stability of shuffle and glide dislocation segments with increasing misfit in GeBi1MGex(001) epitaxial layers. <i>Applied Physics Letters</i> , 2005 , 86, 041912	3.4	16
37	Fast isotropic adatom diffusion on Ge(105) dot facets. <i>Physical Review B</i> , 2004 , 70,	3.3	20
36	Atomic-scale pathway of the pyramid-to-dome transition during ge growth on Si(001). <i>Physical Review Letters</i> , 2004 , 93, 216102	7.4	104
35	Structure and mobility of defects formed from collision cascades in MgO. <i>Physical Review Letters</i> , 2004 , 92, 115505	7.4	90
34	Diffusion and stability of small vacancy clusters on Cu(100)∄ simulation study. <i>Surface Science</i> , 2004 , 565, 289-299	1.8	12
33	Electronic and elastic contributions in the enhanced stability of Ge(105) under compressive strain. <i>Surface Science</i> , 2004 , 556, 121-128	1.8	71
32	Relaxed SiGe heteroepitaxy on Si with very thin buffer layers: experimental LEPECVD indications and an interpretation based on strain-dependent dislocation nature. <i>Microelectronic Engineering</i> , 2004 , 76, 290-296	2.5	6
31	Leapfrog-induced selective faceting in the growth of missing-row (110) surfaces. <i>Chemical Physics Letters</i> , 2004 , 398, 50-55	2.5	4
30	Theoretical evidence for fast H-divacancy rotation on H/Pd(111). <i>Chemical Physics Letters</i> , 2004 , 400, 163-168	2.5	3
29	Formation of strain-induced Si-rich and Ge-rich nanowires at misfit dislocations in SiGe: A model supported by photoluminescence data. <i>Applied Physics Letters</i> , 2004 , 84, 2895-2897	3.4	16
28	Transition-path spectra at metal surfaces. Surface Science, 2003 , 543, 141-152	1.8	8
27	Extending the Time Scale in Atomistic Simulation of Materials. <i>Annual Review of Materials Research</i> , 2002 , 32, 321-346	12.8	543
26	Spontaneous atomic shuffle in flat terraces: Ag(100). <i>Physical Review B</i> , 2002 , 66,	3.3	19

(1999-2002)

25	Exploiting past visits or minimum-barrier knowledge to gain further boost in the temperature-accelerated dynamics method. <i>Journal of Chemical Physics</i> , 2002 , 116, 4819	3.9	53
24	Crossover among structural motifs in transition and noble-metal clusters. <i>Journal of Chemical Physics</i> , 2002 , 116, 3856-3863	3.9	383
23	Simulation of growth of Cu on Ag(001) at experimental deposition rates. <i>Physical Review B</i> , 2002 , 66,	3.3	50
22	Cell cycle effects of gemcitabine. <i>International Journal of Cancer</i> , 2001 , 93, 401-8	7.5	62
21	Applying Accelerated Molecular Dynamics to Crystal Growth. <i>Physica Status Solidi (B): Basic Research</i> , 2001 , 226, 21-27	1.3	17
20	Normal-incidence steering effect in crystal growth: Ag/Ag(100). <i>Physical Review B</i> , 2001 , 64,	3.3	41
19	Closing the gap between experiment and theory: crystal growth by temperature accelerated dynamics. <i>Physical Review Letters</i> , 2001 , 87, 126101	7.4	64
18	Diffusion of Adatoms and Small Clusters on Missing-Row-Reconstructed Surfaces. <i>NATO Science Series Series II, Mathematics, Physics and Chemistry</i> , 2001 , 237-245		
17	Comment on Bcaling behavior of one-dimensional Pt chains migration on Pt(110)-(12) surface Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 277, 185-187	2.3	
16	Probability of dimer reassociation in two dimensions. <i>Physical Review E</i> , 2000 , 61, 3411-6	2.4	4
15	Long jumps in the strong-collision model. <i>Physical Review E</i> , 2000 , 61, 6344-50		17
	Long Jumps in the strong-comsion model. <i>Physical Review E</i> , 2000 , 61, 6544-50	2.4	,
14	Diffusion of one-dimensional clusters on Au and Pt(110) (12). Surface Science, 2000, 454-456, 575-578	·	5
14		·	5 7
	Diffusion of one-dimensional clusters on Au and Pt(110) (12). Surface Science, 2000, 454-456, 575-578	1.8	5
13	Diffusion of one-dimensional clusters on Au and Pt(110) (12). <i>Surface Science</i> , 2000 , 454-456, 575-578 Mobility of atomic chains on channeled surfaces. <i>Journal of Chemical Physics</i> , 2000 , 113, 349-356 Leapfrog Diffusion Mechanism for One-Dimensional Chains on Missing-Row Reconstructed	1.8	5 7
13	Diffusion of one-dimensional clusters on Au and Pt(110) (12). Surface Science, 2000, 454-456, 575-578 Mobility of atomic chains on channeled surfaces. Journal of Chemical Physics, 2000, 113, 349-356 Leapfrog Diffusion Mechanism for One-Dimensional Chains on Missing-Row Reconstructed Surfaces. Physical Review Letters, 1999, 82, 1498-1501	1.8 3.9 7.4 3.3	5 7 88
13 12 11	Diffusion of one-dimensional clusters on Au and Pt(110) (12). Surface Science, 2000, 454-456, 575-578 Mobility of atomic chains on channeled surfaces. Journal of Chemical Physics, 2000, 113, 349-356 Leapfrog Diffusion Mechanism for One-Dimensional Chains on Missing-Row Reconstructed Surfaces. Physical Review Letters, 1999, 82, 1498-1501 Universal law for piecewise dimer diffusion. Physical Review B, 1999, 60, 11102-11109	1.8 3.9 7.4 3.3	5 7 88 8
13 12 11 10	Diffusion of one-dimensional clusters on Au and Pt(110) (12). Surface Science, 2000, 454-456, 575-578 Mobility of atomic chains on channeled surfaces. Journal of Chemical Physics, 2000, 113, 349-356 Leapfrog Diffusion Mechanism for One-Dimensional Chains on Missing-Row Reconstructed Surfaces. Physical Review Letters, 1999, 82, 1498-1501 Universal law for piecewise dimer diffusion. Physical Review B, 1999, 60, 11102-11109 Long-jump probabilities in a BGK model for surface diffusion. Chemical Physics Letters, 1999, 315, 153-1 Measuring the complexity of cell cycle arrest and killing of drugs: Kinetics of phase-specific effects	1.8 3.9 7.4 3.3	5 7 88 8

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