Carsten Busse

List of Publications by Year
in descending order

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79	6,158	109321	66911
papers	citations	35 h-index	78 g-index

81	81	81	5951
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structural Coherency of Graphene on Ir(111). Nano Letters, 2008, 8, 565-570.	9.1	904
2	Dirac Cones and Minigaps for Graphene on Ir(111). Physical Review Letters, 2009, 102, 056808.	7.8	516
3	Structure of epitaxial graphene on Ir(111). New Journal of Physics, 2008, 10, 043033.	2.9	397
4	Growth of graphene on Ir(111). New Journal of Physics, 2009, 11, 039801.	2.9	309
5	Graphene on Ir(111): Physisorption with Chemical Modulation. Physical Review Letters, 2011, 107, 036101.	7.8	270
6	Growth of graphene on Ir(111). New Journal of Physics, 2009, 11, 023006.	2.9	249
7	Chiral switching by spontaneous conformational change in adsorbed organic molecules. Nature Materials, 2006, 5, 112-117.	27.5	213
8	Covalent Interlinking of an Aldehyde and an Amine on a Au(111) Surface in Ultrahigh Vacuum. Angewandte Chemie - International Edition, 2007, 46, 9227-9230.	13.8	191
9	The mechanism of caesium intercalation of graphene. Nature Communications, 2013, 4, 2772.	12.8	184
10	Oxygen Intercalation under Graphene on Ir(111): Energetics, Kinetics, and the Role of Graphene Edges. ACS Nano, 2012, 6, 9951-9963.	14.6	173
11	Surface Synthesis of 2D Branched Polymer Nanostructures. Angewandte Chemie - International Edition, 2008, 47, 4406-4410.	13.8	170
12	A versatile fabrication method for cluster superlattices. New Journal of Physics, 2009, 11, 103045.	2.9	164
13	Interplay of Wrinkles, Strain, and Lattice Parameter in Graphene on Iridium. Nano Letters, 2012, 12, 678-682.	9.1	131
14	Wave-Function Mapping of Graphene Quantum Dots with Soft Confinement. Physical Review Letters, 2012, 108, 046801.	7.8	110
15	In situobservation of stress relaxation in epitaxial graphene. New Journal of Physics, 2009, 11, 113056.	2.9	107
16	Selecting a single orientation for millimeter sized graphene sheets. Applied Physics Letters, 2009, 95, .	3.3	101
17	Graphene on Ir(111) characterized by angle-resolved photoemission. Physical Review B, 2011, 84, .	3.2	97
18	Growth temperature dependent graphene alignment on Ir(111). Applied Physics Letters, 2011, 98, .	3.3	95

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19	Structure and Growth of Hexagonal Boron Nitride on Ir(111). ACS Nano, 2016, 10, 11012-11026.	14.6	93
20	Molecular Self-Assembly from Building Blocks Synthesized on a Surface in Ultrahigh Vacuum: Kinetic Control and Topo-Chemical Reactions. ACS Nano, 2008, 2, 651-660.	14.6	82
21	Ion Impacts on Graphene/Ir(111): Interface Channeling, Vacancy Funnels, and a Nanomesh. Nano Letters, 2013, 13, 1948-1955.	9.1	81
22	The Backside of Graphene: Manipulating Adsorption by Intercalation. Nano Letters, 2013, 13, 5013-5019.	9.1	74
23	Sheet plasmons in modulated graphene on Ir(111). New Journal of Physics, 2011, 13, 053006.	2.9	66
24	Steering Organizational and Conformational Surface Chirality by Controlling Molecular Chemical Functionality. ACS Nano, 2010, 4, 297-311.	14.6	63
25	Molecular structure of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mtext>H</mml:mtext><mml:mn>2</mml:mn></mml:msub><mml:mtext>O</mml:mtext></mml:mrow></mml:math> layer on Pt(111). Physical Review B, 2010, 82, .	3.2	61
26	Molecular beam epitaxy of quasi-freestanding transition metal disulphide monolayers on van der Waals substrates: a growth study. 2D Materials, 2018, 5, 025005.	4.4	55
27	Mapping Image Potential States on Graphene Quantum Dots. Physical Review Letters, 2013, 111, 056804.	7.8	50
28	Atomic Structure and Crystalline Order of Graphene-Supported Ir Nanoparticle Lattices. Physical Review Letters, 2013, 110, 065503.	7.8	47
29	Stacking-Fault Nucleation on Ir(111). Physical Review Letters, 2003, 91, 056103.	7.8	45
30	Absence of Edge States in Covalently Bonded Zigzag Edges of Graphene on Ir(111). Advanced Materials, 2013, 25, 1967-1972.	21.0	42
31	Electrochemically deposited Pd islands on an organic surface: the presence of Coulomb blockade in STM I(V) curves at room temperature. Physical Chemistry Chemical Physics, 2006, 8, 3375-3378.	2.8	40
32	Confinement of Dirac electrons in graphene quantum dots. Physical Review B, 2014, 89, .	3.2	36
33	Atomic Layer Growth on Al(111) by Ion Bombardment. Physical Review Letters, 2000, 85, 326-329.	7.8	35
34	Desorption of H₂O from Flat and Stepped Pt(111). Journal of Physical Chemistry C, 2009, 113, 691-697.	3.1	35
35	Tomonaga-Luttinger Liquid in a Box: Electrons Confined within <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Mirror-Twin Boundaries. Physical Review X, 2019, 9, .	8.9	32
36	Chiral Ordering and Conformational Dynamics for a Class of Oligo-phenylene-ethynylenes on Au(111). Journal of Physical Chemistry B, 2007, 111, 5850-5860.	2.6	31

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37	Charge density wave phase of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>VSe</mml:mi><mml:mn>2</mml:mn></mml:msub></m Physical Review B, 2019, 99, .	3.2	31
38	Adatom formation and atomic layer growth on Al(111) by ion bombardment: experiments and molecular dynamics simulations. Surface Science, 2001, 488, 346-366.	1.9	30
39	Formation of Trioctylamine from Octylamine On Au(111). Journal of the American Chemical Society, 2008, 130, 5388-5389.	13.7	30
40	Interfacial Carbon Nanoplatelet Formation by Ion Irradiation of Graphene on Iridium(111). ACS Nano, 2014, 8, 12208-12218.	14.6	29
41	Dimer binding energies on fcc() metal surfaces. Surface Science, 2003, 539, L560-L566.	1.9	28
42	Island shapes, island densities, and stacking-fault formation onIr(111): Kinetic Monte Carlo simulations and experiments. Physical Review B, 2005, 71, .	3.2	25
43	Oxygen orders differently under graphene: new superstructures on Ir(111). Nanoscale, 2016, 8, 1932-1943.	5.6	25
44	Epitaxial europium oxide on Ni(100) with single-crystal quality. Physical Review B, 2011, 83, .	3.2	24
45	Atomic structure of Pt nanoclusters supported by graphene/Ir(111) and reversible transformation under CO exposure. Physical Review B, 2016, 93, .	3.2	23
46	Structure and magnetic properties of ultra thin textured EuO films on graphene. Applied Physics Letters, 2013, 103, 131601.	3.3	22
47	Graphene buckles under stress: An x-ray standing wave and scanning tunneling microscopy study. Physical Review B, 2014, 89, .	3.2	22
48	Self-healing of stacking faults in homoepitaxial growth on Ir(111). Surface Science, 2004, 552, 281-293.	1.9	20
49	Graphene on weakly interacting metals: Dirac states versus surface states. Physical Review B, 2015, 91, .	3.2	19
50	Valleys and Hills of Graphene on Ru(0001). Journal of Physical Chemistry C, 2018, 122, 18554-18561.	3.1	18
51	Step-induced faceting and related electronic effects for graphene on Ir(332). Carbon, 2016, 110, 267-277.	10.3	17
52	Energy-Dependent Chirality Effects in Quasifree-Standing Graphene. Physical Review Letters, 2017, 118, 116401.	7.8	17
53	Resonance Raman Spectrum of Doped Epitaxial Graphene at the Lifshitz Transition. Nano Letters, 2018, 18, 6045-6056.	9.1	16
54	Comprehensive tunneling spectroscopy of quasifreestanding <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mm on graphene on Ir(111). Physical Review B, 2019, 99, .	3.2	16

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55	Dependence of stacking-fault nucleation on cluster mobility. Physical Review B, 2005, 71, .	3.2	15
56	H₂O on Graphene/Ir(111): A Periodic Array of Frozen Droplets. Journal of Physical Chemistry C, 2015, 119, 1418-1423.	3.1	15
57	Spatial variation of geometry, binding, and electronic properties in the moirÃ© superstructure of MoS₂ on Au(111). 2D Materials, 2022, 9, 025003.	4.4	15
58	Molecules Coining Patterns into a Metal:â€‰ The Hard Core of Soft Matter. Chemistry of Materials, 2007, 19, 4228-4233.	6.7	14
59	Spin-Polarized Surface State in EuO(100). Physical Review Letters, 2014, 112, 016803.	7.8	14
60	Electronic Structure of Quasi-Freestanding WS2/MoS2 Heterostructures. ACS Applied Materials & Interfaces, 2021, 13, 50552-50563.	8.0	14
61	Comment on â€œDynamics of Surface Migration in the Weak Corrugation Regimeâ€• Physical Review Letters, 2001, 86, 2695-2695.	7.8	13
62	A defect-free thin film pentacene diode: Interplay between transport and scanning tunneling microscope tip tunneling injection. Journal of Applied Physics, 2007, 102, 033708.	2.5	13
63	H₂O on Pt(111): structure and stability of the first wetting layer. Journal of Physics Condensed Matter, 2012, 24, 124103.	1.8	12
64	MoirÃ©-regulated self-assembly of cesium adatoms on epitaxial graphene. Physical Review B, 2017, 96, .	3.2	12
65	From erosion to bombardment-induced growth on Ir(111). Physical Review B, 2003, 68, .	3.2	11
66	Mechanical exfoliation of epitaxial graphene on Ir(111) enabled by Br2intercalation. Journal of Physics Condensed Matter, 2012, 24, 314208.	1.8	11
67	Modifying the geometric and electronic structure of hexagonal boron nitride on Ir(111) by Cs adsorption and intercalation. Physical Review B, 2018, 98, .	3.2	11
68	Lifting Epitaxial Graphene by Intercalation of Alkali Metals. Journal of Physical Chemistry C, 2019, 123, 13712-13719.	3.1	11
69	Relevance of nonlocal adatom-adatom interactions in homoepitaxial growth. Physical Review B, 2003, 67, .	3.2	10
70	Comment on â€œInterfacial Carbon Nanoplatelet Formation by Ion Irradiation of Graphene on Iridium(111)â€• ACS Nano, 2015, 9, 4664-4665.	14.6	10
71	Two Phases of Monolayer Tantalum Sulfide on Au(111). ACS Nano, 2021, 15, 13516-13525.	14.6	10
72	Tunneling voltage dependent heights of faulted and unfaulted Ir islands on Ir(111). Physical Review B, 2003, 68, .	3.2	9

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73	Oscillatory interaction between O impurities and Al adatoms on Al(111) and its effect on nucleation and growth. Surface Science, 2005, 575, 89-102.	1.9	9
74	Suppression of Quasiparticle Scattering Signals in Bilayer Graphene Due to Layer Polarization and Destructive Interference. Physical Review Letters, 2018, 120, 106801.	7.8	9
75	Metal-insulator transition in monolayer MoS₂ via contactless chemical doping. 2D Materials, 2022, 9, 025026.	4.4	8
76	Sulfur Structures on Bare and Graphene-Covered Ir(111). Journal of Physical Chemistry C, 2020, 124, 6659-6668.	3.1	7
77	Influence of Molecular Geometry on the Adsorption Orientation for Oligophenylene-Ethynylenes on Au(111). Journal of Physical Chemistry B, 2007, 111, 11342-11345.	2.6	6
78	Structure of monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>2</mml:mn><mml:mi>H</mml:mi></mml:mrow><mml:m mathvariant="normal">TaS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> on Au(111). Physical Review B, 2021, 104, .	3.2	6
79	Sub-Poissonian distribution of Cs and K ions in the valleys of hBN/Ru(0001). Physical Review B, 2021, 104, .	3.2	2