

Johann Coraux

List of Publications by Year in descending order

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65
papers

4,711
citations

147801

31
h-index

106344

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g-index

67
all docs

67
docs citations

67
times ranked

5852
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	Graphene on Ir(111): Physisorption with Chemical Modulation. Physical Review Letters, 2011, 107, 036101.	7.8	270
5	Growth of epitaxial graphene: Theory and experiment. Physics Reports, 2014, 542, 195-295.	25.6	228
6	Room temperature ferromagnetism in ultra-thin van der Waals crystals of 1T-CrTe ₂ . Nano Research, 2020, 13, 3358-3363.	10.4	175
7	A versatile fabrication method for cluster superlattices. New Journal of Physics, 2009, 11, 103045.	2.9	164
8	Interplay of Wrinkles, Strain, and Lattice Parameter in Graphene on Iridium. Nano Letters, 2012, 12, 678-682.	9.1	131
9	Anatomy and Giant Enhancement of the Perpendicular Magnetic Anisotropy of Cobalt-Graphene Heterostructures. Nano Letters, 2016, 16, 145-151.	9.1	120
10	<i>In situ</i> observation of stress relaxation in epitaxial graphene. New Journal of Physics, 2009, 11, 113056.	2.9	107
11	Selecting a single orientation for millimeter sized graphene sheets. Applied Physics Letters, 2009, 95, .	3.3	101
12	Growth temperature dependent graphene alignment on Ir(111). Applied Physics Letters, 2011, 98, .	3.3	95
13	Perpendicular magnetic anisotropy of cobalt films intercalated under graphene. Applied Physics Letters, 2012, 101, .	3.3	82
14	Epitaxial graphene prepared by chemical vapor deposition on single crystal thin iridium films on sapphire. Applied Physics Letters, 2011, 98, .	3.3	77
15	Ultrathin epitaxial cobalt films on graphene for spintronic investigations and applications. New Journal of Physics, 2010, 12, 103040.	2.9	74
16	Induced Superconductivity in Graphene Grown on Rhenium. Physical Review Letters, 2013, 111, 246805.	7.8	74
17	Strain Relaxation in CVD Graphene: Wrinkling with Shear Lag. Nano Letters, 2015, 15, 5098-5104.	9.1	73
18	Homogeneous Optical and Electronic Properties of Graphene Due to the Suppression of Multilayer Patches During CVD on Copper Foils. Advanced Functional Materials, 2014, 24, 964-970.	14.9	71

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19	Europium underneath graphene on Ir(111): Intercalation mechanism, magnetism, and band structure. <i>Physical Review B</i> , 2014, 90, .	3.2	67
20	In-Plane Magnetic Domains and Néel-like Domain Walls in Thin Flakes of the Room Temperature CrTe ₂ Van der Waals Ferromagnet. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 30702-30710.	8.0	63
21	Synthesis of epitaxial monolayer Janus SPtSe. <i>Npj 2D Materials and Applications</i> , 2020, 4, .	7.9	55
22	Air-Protected Epitaxial Graphene/Ferromagnet Hybrids Prepared by Chemical Vapor Deposition and Intercalation. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2059-2063.	4.6	54
23	Strains Induced by Point Defects in Graphene on a Metal. <i>Physical Review Letters</i> , 2013, 111, 085501.	7.8	51
24	Universal classification of twisted, strained and sheared graphene moiré superlattices. <i>Scientific Reports</i> , 2016, 6, 25670.	3.3	48
25	Weakly Trapped, Charged, and Free Excitons in Single-Layer MoS ₂ in the Presence of Defects, Strain, and Charged Impurities. <i>ACS Nano</i> , 2017, 11, 11206-11216.	14.6	44
26	Toward Moiré engineering in 2D materials via dislocation theory. <i>Applied Materials Today</i> , 2017, 9, 240-250.	4.3	44
27	Cobalt intercalation at the graphene/iridium(111) interface: Influence of rotational domains, wrinkles, and atomic steps. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	40
28	Unconventional magnetisation texture in graphene/cobalt hybrids. <i>Scientific Reports</i> , 2016, 6, 24783.	3.3	38
29	Magnetism of cobalt nanoclusters on graphene on iridium. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	34
30	In situ resonant x-ray study of vertical correlation and capping effects during GaN ⁺ AlN quantum dot growth. <i>Applied Physics Letters</i> , 2006, 88, 153125.	3.3	31
31	Fast computation of scattering maps of nanostructures using graphical processing units. <i>Journal of Applied Crystallography</i> , 2011, 44, 635-640.	4.5	31
32	Functional Hybrid Systems Based on Large-Area High-Quality Graphene. <i>Accounts of Chemical Research</i> , 2013, 46, 2193-2201.	15.6	28
33	Effect of preparation on the commensurabilities and thermal expansion of graphene on Ir(111) between 10 and 1300 K. <i>Physical Review B</i> , 2013, 88, .	3.2	27
34	Surface alloying upon Co intercalation between graphene and Ir(111). <i>Carbon</i> , 2015, 94, 554-559.	10.3	27
35	Unravelling external perturbation effects on the optical phonon response of graphene. <i>Journal of Raman Spectroscopy</i> , 2018, 49, 130-145.	2.5	26
36	Coherence and Density Dynamics of Excitons in a Single-Layer MoS ₂ Reaching the Homogeneous Limit. <i>ACS Nano</i> , 2019, 13, 3500-3511.	14.6	26

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37	Characterization of room-temperature in-plane magnetization in thin flakes of Cr with a single-spin magnetometer. <i>Physical Review Materials</i> , 2021, 5, .		
38	Local deformations and incommensurability of high-quality epitaxial graphene on a weakly interacting transition metal. <i>Physical Review B</i> , 2012, 86, .	3.2	20
39	Equal variations of the Fermi level and work function in graphene at the nanoscale. <i>Nanoscale</i> , 2016, 8, 15162-15166.	5.6	19
40	Graphene as a Mechanically Active, Deformable Two-Dimensional Surfactant. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 2523-2531.	4.6	19
41	Temperature-Controlled Rotational Epitaxy of Graphene. <i>Nano Letters</i> , 2019, 19, 4594-4600.	9.1	19
42	Elementary processes governing V_2O_5 chemical etching in HF. <i>RSC Advances</i> , 2020, 10, 25266-25274.	3.6	19
43	Anharmonicity in Raman-active phonon modes in atomically thin MoS_2 . <i>Physical Review B</i> , 2020, 101, .		
44	Cathodoluminescence enhancement and quenching in type-I van der Waals heterostructures: Cleanliness of the interfaces and defect creation. <i>Physical Review Materials</i> , 2019, 3, .	2.4	18
45	Modulating charge density and inelastic optical response in graphene by atmospheric pressure localized intercalation through wrinkles. <i>Carbon</i> , 2014, 68, 73-79.	10.3	16
46	Copper-assisted oxidation of catechols into quinone derivatives. <i>Chemical Science</i> , 2021, 12, 2257-2267.	7.4	16
47	Electronic Band Structure of Ultimately Thin Silicon Oxide on Ru(0001). <i>ACS Nano</i> , 2019, 13, 4720-4730.	14.6	14
48	Role of the Structure and Reactivity of Cu and Ag Surfaces in the Formation of a 2D Metal-Organic Hexahydroxytriphenylene Network. <i>Journal of Physical Chemistry C</i> , 2021, 125, 17333-17341.	3.1	12
49	Mechanical exfoliation of epitaxial graphene on Ir(111) enabled by Br ₂ intercalation. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 314208.	1.8	11
50	Disorder and screening in decoupled graphene on a metallic substrate. <i>Physical Review B</i> , 2015, 91, .	3.2	11
51	Degenerate epitaxy-driven defects in monolayer silicon oxide on ruthenium. <i>Physical Review B</i> , 2015, 92, .	3.2	11
52	Decoupling Molybdenum Disulfide from Its Substrate by Cesium Intercalation. <i>Journal of Physical Chemistry C</i> , 2020, 124, 12397-12408.	3.1	9
53	Evolution of inter-layer coupling in artificially stacked bilayer MoS_2 . <i>Nanoscale Advances</i> , 2019, 1, 4398-4405.	4.6	8
54	Intercalating cobalt between graphene and iridium (111): Spatially dependent kinetics from the edges. <i>Physical Review Materials</i> , 2017, 1, .	2.4	8

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55	Size-Selective Carbon Clusters as Obstacles to Graphene Growth on a Metal. Nano Letters, 2018, 18, 4812-4820.	9.1	7
56	The formation of the smallest fullerene-like carbon cages on metal surfaces. Nanoscale, 2016, 8, 2561-2567.	5.6	6
57	Fermi resonance in the Raman spectrum of graphene. Physical Review B, 2020, 102, .	3.2	6
58	How to induce superconductivity in epitaxial graphene via remote proximity effect through an intercalated gold layer. 2D Materials, 2021, 8, 015002.	4.4	6
59	Confined step-flow growth of Cu intercalated between graphene and a Ru(0001) surface. 2D Materials, 2019, 6, 035004.	4.4	4
60	Depressions by stacking faults in nanorippled graphene on metals. 2D Materials, 2020, 7, 025016.	4.4	4
61	In situ and ex situ grazing incidence diffraction anomalous fine structure study of GaN/AlN quantum dots. Physica Status Solidi (B): Basic Research, 2006, 243, 1519-1523.	1.5	3
62	Soluble Two-Dimensional Covalent Organometallic Polymers by (Arene)Ruthenium-Sulfur Chemistry. Chemistry - A European Journal, 2017, 23, 10969-10973.	3.3	3
63	Dispersing and semi-flat bands in the wide band gap two-dimensional semiconductor bilayer silicon oxide. 2D Materials, 2021, 8, 035021.	4.4	3
64	Nano-sheets of two-dimensional polymers with dinuclear (arene)ruthenium nodes, synthesised at a liquid/liquid interface. Nanotechnology, 2021, 32, 355603.	2.6	0
65	Structure of graphene and a surface carbide grown on the (0001) surface of rhenium. Physical Review Materials, 2020, 4, .	2.4	0