Alexander GrÃ¼neis

List of Publications by Year
in descending order

134 papers	7,861 citations	47409 49 h-index	56606 87 g-index
135 all docs	135 docs citations	135 times ranked	10450 citing authors

#	Article	IF	Citations
1	Silicon Cluster Arrays on the Monolayer of Hexagonal Boron Nitride on Ir(111). Journal of Physical Chemistry C, 2022, 126, 6809-6814.	1.5	2
2	Direct Spectroscopic Evidence of Magnetic Proximity Effect in MoS₂ Monolayer on Graphene/Co. ACS Nano, 2022, 16, 7448-7456.	7.3	7
3	Size-limited high-density nanopore formation in two-dimensional moirÃ© materials. Physical Review B, 2022, 105, .	1.1	0
4	Tunneling current modulation in atomically precise graphene nanoribbon heterojunctions. Nature Communications, 2021, 12, 2542.	5.8	22
5	Electron-phonon coupling origin of the graphene Ï€* -band kink via isotope effect. Physical Review B, 2021, 103, .	1.1	3
6	Unraveling the Excitonic Transition and Associated Dynamics in Confined Long Linear Carbon Chains with Timeâ€Resolved Resonance Raman Scattering. Laser and Photonics Reviews, 2021, 15, 2100259.	4.4	10
7	Coupling to zone-center optical phonons in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">V</mml:mi><mml:msub><mml:mrow><mml:mi>Se</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub enhanced by charge density waves. Physical Review B, 2021, 104, .	1.1	2
8	Origin of the Flat Band in Heavily Cs-Doped Graphene. ACS Nano, 2020, 14, 1055-1069.	7.3	28
9	Reversible crystalline-to-amorphous phase transformation in monolayer MoS2 under grazing ion irradiation. 2D Materials, 2020, 7, 025005.	2.0	17
10	Photodetection Using Atomically Precise Graphene Nanoribbons. ACS Applied Nano Materials, 2020, 3, 8343-8351.	2.4	15
11	Cluster Superlattice Membranes. ACS Nano, 2020, 14, 13629-13637.	7.3	6
12	Probing the origin of photoluminescence blinking in graphene nanoribbons: Influence of plasmonic field enhancement. 2D Materials, 2020, 7, 045009.	2.0	0
13	Photothermal Bottom-up Graphene Nanoribbon Growth Kinetics. Nano Letters, 2020, 20, 4761-4767.	4.5	15
14	MassiveÂ and massless charge carriers in an epitaxially strained alkali metal quantum well on graphene. Nature Communications, 2020, 11, 1340.	5.8	8
15	Twoâ€Dimensional Semiconductors: Present and Future Challenges. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000041.	1.2	0
16	Environmental Control of Charge Density Wave Order in Monolayer 2H-TaS₂. ACS Nano, 2019, 13, 10210-10220.	7.3	44
17	Probing the origin of photoluminescence brightening in graphene nanoribbons. 2D Materials, 2019, 6, 035009.	2.0	11
18	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></mm Physical Review B, 2019, 99, .	1.1	31

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19	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></m on graphene on Ir(111). Physical Review B, 2019, 99, .	1.1	16
20	Narrow photoluminescence and Raman peaks of epitaxial MoS ₂ on graphene/Ir(1â€‰1â€‰1). 2D Materials, 2019, 6, 011006.	2.0	23
21	Electron-phonon coupling in graphene placed between magnetic Li and Si layers on cobalt. Physical Review B, 2018, 97, .	1.1	16
22	Field-Effect Transistors Based on Networks of Highly Aligned, Chemically Synthesized <i>N</i> = 7 Armchair Graphene Nanoribbons. ACS Applied Materials & Interfaces, 2018, 10, 9900-9903.	4.0	38
23	Finding the hidden valence band of Nâ€‰â€‰=â€‰â€‰7 armchair graphene nanoribbons with angle-resolved photoemission spectroscopy. 2D Materials, 2018, 5, 035007.	2.0	22
24	Direct observation of a surface resonance state and surface band inversion control in black phosphorus. Physical Review B, 2018, 97, .	1.1	33
25	Quasi-two-dimensional thermoelectricity in SnSe. Physical Review B, 2018, 97, .	1.1	42
26	Effect of lithium doping on the optical properties of monolayer MoS2. Applied Physics Letters, 2018, 112, .	1.5	23
27	Synthesis and spectroscopic characterization of alkaliâ€“metal intercalated ZrSe₂. Dalton Transactions, 2018, 47, 2986-2991.	1.6	12
28	Ultrahigh Vacuum Optical Spectroscopy of Chemically Functionalized Graphene Nanoribbons. , 2018, , 367-374.		4
29	Combined Ultra High Vacuum Raman and Electronic Transport Characterization of Largeâ€Area Graphene on SiO2. Physica Status Solidi (B): Basic Research, 2018, 255, 1800456.	0.7	4
30	Emergent Dirac carriers across a pressure-induced Lifshitz transition in black phosphorus. Physical Review B, 2018, 98, .	1.1	14
31	Observation of Room-Temperature Photoluminescence Blinking in Armchair-Edge Graphene Nanoribbons. Nano Letters, 2018, 18, 7038-7044.	4.5	8
32	Exciton and phonon dynamics in highly aligned 7-atom wide armchair graphene nanoribbons as seen by time-resolved spontaneous Raman scattering. Nanoscale, 2018, 10, 17975-17982.	2.8	12
33	Resonance Raman Spectrum of Doped Epitaxial Graphene at the Lifshitz Transition. Nano Letters, 2018, 18, 6045-6056.	4.5	16
34	Enhanced lightâ€“matter interaction of aligned armchair graphene nanoribbons using arrays of plasmonic nanoantennas. 2D Materials, 2018, 5, 045006.	2.0	10
35	Boron-Doped Graphene Nanoribbons: Electronic Structure and Raman Fingerprint. ACS Nano, 2018, 12, 7571-7582.	7.3	38
36	Ab initio study of the (2 Ã— 2) phase of barium on graphene. European Physical Journal B, 2018, 91, 1.	0.6	5

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37	Semiconductorâ€toâ€Metal Transition and Quasiparticle Renormalization in Doped Graphene Nanoribbons. Advanced Electronic Materials, 2017, 3, 1600490.	2.6	33
38	Making Graphene Nanoribbons Photoluminescent. Nano Letters, 2017, 17, 4029-4037.	4.5	73
39	Spectroscopic characterization of Nâ€‰ =â€‰9 armchair graphene nanoribbons. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1700157.	1.2	11
40	Alloyed surfaces: New substrates for graphene growth. Surface Science, 2017, 665, 28-31.	0.8	2
41	Evolution of electronic structure of few-layer phosphorene from angle-resolved photoemission spectroscopy of black phosphorous. Physical Review B, 2016, 94, .	1.1	44
42	Environmental control of electronâ€"phonon coupling in barium doped graphene. 2D Materials, 2016, 3, 045003.	2.0	14
43	Facile preparation of Au(111)/mica substrates for high-quality graphene nanoribbon synthesis. Physica Status Solidi (B): Basic Research, 2016, 253, 2362-2365.	0.7	3
44	Controlled thermodynamics for tunable electron doping of graphene on Ir(111). Physical Review B, 2016, 94, .	1.1	7
45	Effect of nematic ordering on electronic structure of FeSe. Scientific Reports, 2016, 6, 36834.	1.6	78
46	First-principles and angle-resolved photoemission study of lithium doped metallic black phosphorous. 2D Materials, 2016, 3, 025031.	2.0	21
47	Efficient gating of epitaxial boron nitride monolayers by substrate functionalization. Physical Review B, 2015, 92, .	1.1	16
48	Atomically precise semiconductorâ€"graphene and hBN interfaces by Ge intercalation. Scientific Reports, 2015, 5, 17700.	1.6	24
49	Oxygen Reduction by Lithiated Graphene and Graphene-Based Materials. ACS Nano, 2015, 9, 320-326.	7.3	28
50	Observation of Single-Spin Dirac Fermions at the Graphene/Ferromagnet Interface. Nano Letters, 2015, 15, 2396-2401.	4.5	82
51	High-quality graphene on single crystal Ir(1 1 1) films on Si(1 1 1) wafers: Synthesis and multi-spectroscopic characterization. Carbon, 2015, 81, 167-173.	5.4	11
52	Observation of a universal donor-dependent vibrational mode in graphene. Nature Communications, 2014, 5, 3257.	5.8	114
53	The Chemistry of Imperfections in N-Graphene. Nano Letters, 2014, 14, 4982-4988.	4.5	69
54	Controlled assembly of graphene-capped nickel, cobalt and iron silicides. Scientific Reports, 2013, 3, 2168.	1.6	49

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55	Anisotropic Eliashberg function and electron-phonon coupling in doped graphene. Physical Review B, 2013, 88, .	1.1	41
56	Synthesis and electronic properties of chemically functionalized graphene on metal surfaces. Journal of Physics Condensed Matter, 2013, 25, 043001.	0.7	8
57	Kinetic Isotope Effect in the Hydrogenation and Deuteration of Graphene. Advanced Functional Materials, 2013, 23, 1628-1635.	7.8	38
58	Tunable Interface Properties between Pentacene and Graphene on the SiC Substrate. Journal of Physical Chemistry C, 2013, 117, 3969-3975.	1.5	19
59	Probing Local Hydrogen Impurities in Quasi-Free-Standing Graphene. ACS Nano, 2012, 6, 10590-10597.	7.3	24
60	Experimental and computational insight into the properties of the lattice-mismatched structures: Monolayers of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>h</mml:mi></mml:math>-BN and graphene on Ir(111). Physical Review B, 2012, 86, .	1.1	46
61	Nitrogen-Doped Graphene: Efficient Growth, Structure, and Electronic Properties. Nano Letters, 2011, 11, 5401-5407.	4.5	685
62	Graphene Epitaxy by Chemical Vapor Deposition on SiC. Nano Letters, 2011, 11, 1786-1791.	4.5	296
63	Electronic properties of hydrogenated quasiâ€freeâ€standing graphene. Physica Status Solidi (B): Basic Research, 2011, 248, 2639-2643.	0.7	17
64	Evidence for a New Twoâ€Dimensional C₄Hâ€Type Polymer Based on Hydrogenated Graphene. Advanced Materials, 2011, 23, 4497-4503.	11.1	90
65	Direct observation of a dispersionless impurity band in hydrogenated graphene. Physical Review B, 2011, 83, .	1.1	49
66	Effect of hydrogen adsorption on the quasiparticle spectra of graphene. Physical Review B, 2011, 83, .	1.1	15
67	Quasifreestanding single-layer hexagonal boron nitride as a substrate for graphene synthesis. Physical Review B, 2010, 82, .	1.1	104
68	Tunable Band Gap in Hydrogenated Quasi-Free-Standing Graphene. Nano Letters, 2010, 10, 3360-3366.	4.5	297
69	Electronic structure and electron-phonon coupling of doped graphene layers in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>KC</mml:mtext></mml:mrow><mml:mn>8</mml:mn></mml:msu Physical Review B, 2009, 79, .	1.1	81
70	Phonon surface mapping of graphite: Disentangling quasi-degenerate phonon dispersions. Physical Review B, 2009, 80, .	1.1	83
71	Dynamics of graphene growth on a metal surface: a time-dependent photoemission study. New Journal of Physics, 2009, 11, 073050.	1.2	173
72	Angle-resolved photoemission study of the graphite intercalation compoundKC8: A key to graphene. Physical Review B, 2009, 80, .	1.1	69

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73	Preparation and electronic properties of potassium doped graphite single crystals. Physica Status Solidi (B): Basic Research, 2008, 245, 2072-2076.	0.7	8
74	A Catalytic Reaction Inside a Singleâ€Walled Carbon Nanotube. Advanced Materials, 2008, 20, 1443-1449.	11.1	178
75	Cyclohexane triggers staged growth of pure and vertically aligned single wall carbon nanotubes. Chemical Physics Letters, 2008, 454, 332-336.	1.2	13
76	A one step approach to B-doped single-walled carbon nanotubes. Journal of Materials Chemistry, 2008, 18, 5676.	6.7	68
77	Tunable hybridization between electronic states of graphene and a metal surface. Physical Review B, 2008, 77, .	1.1	191
78	Tight-binding description of the quasiparticle dispersion of graphite and few-layer graphene. Physical Review B, 2008, 78, .	1.1	243
79	Fine tuning the charge transfer in carbon nanotubes via the interconversion of encapsulated molecules. Physical Review B, 2008, 77, .	1.1	79
80	High-Quality Double-Walled Carbon Nanotubes Grown by a Cold-Walled Radio Frequency Chemical Vapor Deposition Process. Chemistry of Materials, 2008, 20, 3466-3472.	3.2	41
81	Electron-Electron Correlation in Graphite: A Combined Angle-Resolved Photoemission and First-Principles Study. Physical Review Letters, 2008, 100, 037601.	2.9	103
82	Catalyst Volume to Surface Area Constraints for Nucleating Carbon Nanotubes. Journal of Physical Chemistry B, 2007, 111, 8234-8241.	1.2	59
83	Tailoring N-Doped Single and Double Wall Carbon Nanotubes from a Nondiluted Carbon/Nitrogen Feedstock. Journal of Physical Chemistry C, 2007, 111, 2879-2884.	1.5	119
84	Effects of the reaction atmosphere composition on the synthesis of single and multiwalled nitrogen-doped nanotubes. Journal of Chemical Physics, 2007, 127, 184709.	1.2	36
85	Revealing the Small-Bundle Internal Structure of Vertically Aligned Single-Walled Carbon Nanotube Filmsâ€. Journal of Physical Chemistry C, 2007, 111, 17861-17864.	1.5	37
86	Isotope-Engineered Single-Wall Carbon Nanotubes; A Key Material for Magnetic Studies. Journal of Physical Chemistry C, 2007, 111, 4094-4098.	1.5	50
87	Influence of the Catalyst Hydrogen Pretreatment on the Growth of Vertically Aligned Nitrogen-Doped Carbon Nanotubes. Chemistry of Materials, 2007, 19, 6131-6137.	3.2	56
88	On the Graphitization Nature of Oxides for the Formation of Carbon Nanostructures. Chemistry of Materials, 2007, 19, 4105-4107.	3.2	121
89	Control of the single-wall carbon nanotube mean diameter in sulphur promoted aerosol-assisted chemical vapour deposition. Carbon, 2007, 45, 55-61.	5.4	45
90	Carbon nanotubes grown from individual gas phase prepared iron catalyst particles. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 1786-1790.	0.8	13

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91	Low energy quasiparticle dispersion of graphite by angleâ€resolved photoemission spectroscopy. Physica Status Solidi (B): Basic Research, 2007, 244, 4129-4133.	0.7	5
92	Growth mechanisms of innerâ€shell tubes in doubleâ€wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2007, 244, 4097-4101.	0.7	6
93	Anisotropy in the X-ray absorption of vertically aligned single wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2007, 244, 3978-3981.	0.7	7
94	Chemical vapor deposition of functionalized singleâ€walled carbon nanotubes with defined nitrogen doping. Physica Status Solidi (B): Basic Research, 2007, 244, 4051-4055.	0.7	24
95	Thermal Decomposition of Ferrocene as a Method for Production of Single-Walled Carbon Nanotubes without Additional Carbon Sources. Journal of Physical Chemistry B, 2006, 110, 20973-20977.	1.2	96
96	Novel catalysts for low temperature synthesis of single wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2006, 243, 3101-3105.	0.7	20
97	Synthesis of single wall carbon nanotubes with defined13C content. Physica Status Solidi (B): Basic Research, 2006, 243, 3050-3053.	0.7	4
98	Growth of carbon nanotubes from wet chemistry and thin film multilayer catalysts. Physica Status Solidi (B): Basic Research, 2006, 243, 3054-3057.	0.7	7
99	Photoluminescence intensity of single-wall carbon nanotubes. Carbon, 2006, 44, 873-879.	5.4	151
100	High quality double wall carbon nanotubes with a defined diameter distribution by chemical vapor deposition from alcohol. Carbon, 2006, 44, 3177-3182.	5.4	66
101	Eutectic limit for the growth of carbon nanotubes from a thin iron film by chemical vapor deposition of cyclohexane. Chemical Physics Letters, 2006, 425, 301-305.	1.2	24
102	Catalytic decomposition of n-heptane for the growth of high quality single wall carbon nanotubes. Chemical Physics Letters, 2006, 428, 416-420.	1.2	9
103	Synthesis of single wall carbon nanotubes with invariant diameters using a modified laser assisted chemical vapour deposition route. Nanotechnology, 2006, 17, 5469-5473.	1.3	10
104	Trigonal Anisotropy in Graphite and Carbon Nanotubes. Molecular Crystals and Liquid Crystals, 2006, 455, 287-294.	0.4	1
105	Origin of the 2450cmâ^'1 Raman bands in HOPG, single-wall and double-wall carbon nanotubes. Carbon, 2005, 43, 1049-1054.	5.4	120
106	Intensity of the resonance Raman excitation spectra of single-wall carbon nanotubes. Physical Review B, 2005, 71, .	1.1	75
107	Strain-Induced Interference Effects on the Resonance Raman Cross Section of Carbon Nanotubes. Physical Review Letters, 2005, 95, 217403.	2.9	61
108	Photoexcited electron relaxation processes in single-wall carbon nanotubes. Physical Review B, 2005, 71, .	1.1	55

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109	Resonance Raman spectroscopy(n,m)-dependent effects in small-diameter single-wall carbon nanotubes. Physical Review B, 2005, 71, .	1.1	225
110	Double resonance Raman spectroscopy and optical properties of single wall carbon nanotubes. AIP Conference Proceedings, 2004, , .	0.3	0
111	Family behavior of the optical transition energies in single-wall carbon nanotubes of smaller diameters. Applied Physics Letters, 2004, 85, 5703-5705.	1.5	185
112	Resonance Raman Spectroscopy to Study and Characterize Defects on Carbon Nanotubes and other Nano-Graphite Systems. Materials Research Society Symposia Proceedings, 2004, 858, 1.	0.1	1
113	Optical absorption of graphite and single-wall carbon nanotubes. Applied Physics A: Materials Science and Processing, 2004, 78, 1099-1105.	1.1	47
114	Resonant Raman spectra of carbon nanotube bundles observed by perpendicularly polarized light. Chemical Physics Letters, 2004, 387, 301-306.	1.2	27
115	Electronâ€“phonon interaction and relaxation time in graphite. Chemical Physics Letters, 2004, 392, 383-389.	1.2	68
116	Optical absorption matrix elements in single-wall carbon nanotubes. Carbon, 2004, 42, 3169-3176.	5.4	104
117	Interband optical transitions in left- and right-handed single-wall carbon nanotubes. Physical Review B, 2004, 69, .	1.1	77
118	Stokes and anti-Stokes Raman spectra of small-diameter isolated carbon nanotubes. Physical Review B, 2004, 69, .	1.1	98
119	Phonon Trigonal Warping Effect in Graphite and Carbon Nanotubes. Physical Review Letters, 2003, 90, 027403.	2.9	62
120	Double resonance Raman spectroscopy of single-wall carbon nanotubes. New Journal of Physics, 2003, 5, 157-157.	1.2	229
121	Origin of the Fine Structure of the RamanDBand in Single-Wall Carbon Nanotubes. Physical Review Letters, 2003, 90, 157401.	2.9	52
122	Inhomogeneous optical absorption around theKpoint in graphite and carbon nanotubes. Physical Review B, 2003, 67, .	1.1	257
123	Resonance Raman Scattering in Carbon Nanotubes and Nanographites. AIP Conference Proceedings, 2003, , .	0.3	1
124	The Concept of Cutting Lines in Carbon Nanotube Science. Journal of Nanoscience and Nanotechnology, 2003, 3, 431-458.	0.9	115
125	First and Second-Order Resonance Raman Process in Graphite and Single Wall Carbon Nanotubes. Japanese Journal of Applied Physics, 2002, 41, 4878-4882.	0.8	21
126	Characterization of nanographite and carbon nanotubes by polarization dependent optical spectroscopy. Materials Research Society Symposia Proceedings, 2002, 737, 521.	0.1	0

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127	Anisotropy in the Phonon Dispersion Relations of Graphite and Carbon Nanotubes Measured by Raman Spectroscopy. Materials Research Society Symposia Proceedings, 2002, 737, 652.	0.1	0
128	Stokes and anti-Stokes double resonance Raman scattering in two-dimensional graphite. Physical Review B, 2002, 66, .	1.1	152
129	Disorder Induced Triple Resonant Raman Phenomena in Single-Wall Carbon Nanotubes. AIP Conference Proceedings, 2002, , .	0.3	0
130	Dispersive Raman spectra observed in graphite and single wall carbon nanotubes. Physica B: Condensed Matter, 2002, 323, 100-106.	1.3	64
131	Determination of two-dimensional phonon dispersion relation of graphite by Raman spectroscopy. Physical Review B, 2002, 65, .	1.1	99
132	Double resonant Raman phenomena enhanced by van Hove singularities in single-wall carbon nanotubes. Physical Review B, 2002, 65, .	1.1	143
133	Determination of bundle diameters in SWCNT material. AIP Conference Proceedings, 2001, , .	0.3	0
134	Determination of SWCNT diameters from the Raman response of the radial breathing mode. European Physical Journal B, 2001, 22, 307-320.	0.6	260