Jurgen H Smet

List of Publications by Year
in descending order

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64 papers	5,178 citations	172207 29 h-index	123241 61 g-index
65 all docs	65 docs citations	65 times ranked	5834 citing authors

#	Article	IF	Citations
1	Observation of electronâ€“hole puddles in graphene using a scanning single-electron transistor. Nature Physics, 2008, 4, 144-148.	6.5	1,350
2	Zero-resistance states induced by electromagnetic-wave excitation in GaAs/AlGaAs heterostructures. Nature, 2002, 420, 646-650.	13.7	616
3	Laser-induced disassembly of a graphene single crystal into a nanocrystalline network. Physical Review B, 2009, 79, .	1.1	200
4	Gate-voltage control of spin interactions between electrons and nuclei in a semiconductor. Nature, 2002, 415, 281-286.	13.7	188
5	Circular-Polarization-Dependent Study of the Microwave Photoconductivity in a Two-Dimensional Electron System. Physical Review Letters, 2005, 95, 116804.	2.9	186
6	Reversible superdense ordering of lithium between two graphene sheets. Nature, 2018, 564, 234-239.	13.7	178
7	Demonstration of a1/4-Cycle Phase Shift in the Radiation-Induced Oscillatory Magnetoresistance inGaAs/AlGaAsDevices. Physical Review Letters, 2004, 92, 146801.	2.9	170
8	Raman Scattering at Pure Graphene Zigzag Edges. Nano Letters, 2010, 10, 4544-4548.	4.5	166
9	Ultrafast lithium diffusion in bilayer graphene. Nature Nanotechnology, 2017, 12, 895-900.	15.6	149
10	Even-denominator fractional quantum Hall physics in ZnO. Nature Physics, 2015, 11, 347-351.	6.5	138
11	Emerging perovskite monolayers. Nature Materials, 2021, 20, 1325-1336.	13.3	124
12	Ising Ferromagnetism and Domain Morphology in the Fractional Quantum Hall Regime. Physical Review Letters, 2001, 86, 2412-2415.	2.9	108
13	Dispersion of the Excitations of Fractional Quantum Hall States. Science, 2009, 324, 1044-1047.	6.0	102
14	Hot Phonons in an Electrically Biased Graphene Constriction. Nano Letters, 2010, 10, 466-471.	4.5	100
15	Radiation-induced oscillatory Hall effect in high-mobilityGaAs/AlxGa1â^'xAsdevices. Physical Review B, 2004, 69, .	1.1	96
16	Fractional Quantum Hall Phase Transitions and Four-Flux States in Graphene. Physical Review Letters, 2013, 111, 076802.	2.9	90
17	Charge Inversion and Topological Phase Transition at a Twist Angle Induced van Hove Singularity of Bilayer Graphene. Nano Letters, 2016, 16, 5053-5059.	4.5	89
18	Type-II Ising pairing in few-layer stanene. Science, 2020, 367, 1454-1457.	6.0	81

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19	NMR study of the electron spin polarization in the fractional quantum Hall effect of a single quantum well:â€ƒSpectroscopic evidence for domain formation. Physical Review B, 2004, 70, .	1.1	79
20	Even denominator fractional quantum Hall states in higher Landau levels of graphene. Nature Physics, 2019, 15, 154-158.	6.5	76
21	MgZnO/ZnO heterostructures with electron mobility exceeding 1â€‰Ã—â€‰106â€‰cm2/Vs. Scientific Reports, 2016, 6, 26598.	1.6	71
22	Spin-Split Band Hybridization in Graphene Proximitized with Î±-RuCl₃ Nanosheets. Nano Letters, 2019, 19, 4659-4665.	4.5	62
23	Random telegraph photosignals in a microwave-exposed two-dimensional electronÂsystem. Nature Physics, 2011, 7, 336-341.	6.5	56
24	Optoelectronic Properties of a van der Waals WS₂ Monolayer/2D Perovskite Vertical Heterostructure. ACS Applied Materials & Interfaces, 2020, 12, 45235-45242.	4.0	49
25	Photocurrent and Photovoltage Oscillations in the Two-Dimensional Electron System: Enhancement and Suppression of Built-In Electric Fields. Physical Review Letters, 2009, 102, 036602.	2.9	41
26	Exceptional electron conduction in two-dimensional covalent organic frameworks. CheM, 2021, 7, 3309-3324.	5.8	41
27	Electron scattering times in ZnO based polar heterostructures. Applied Physics Letters, 2015, 107, .	1.5	36
28	Fractional Quantum Hall States in Bilayer Graphene Probed by Transconductance Fluctuations. Nano Letters, 2015, 15, 7445-7451.	4.5	33
29	Reliable Postprocessing Improvement of van der Waals Heterostructures. ACS Nano, 2019, 13, 14182-14190.	7.3	33
30	Highly Polarized Single Photons from Strain-Induced Quasi-1D Localized Excitons in WSe₂. Nano Letters, 2021, 21, 7175-7182.	4.5	33
31	Observation of microwave induced resistance and photovoltage oscillations in MgZnO/ZnO heterostructures. Physical Review B, 2016, 93, .	1.1	30
32	Alkali metals inside bi-layer graphene and MoS2: Insights from first-principles calculations. Nano Energy, 2020, 75, 104927.	8.2	30
33	Gate-Tunable Tunneling Transistor Based on a Thin Black Phosphorusâ€“SnSe₂ Heterostructure. ACS Applied Materials & Interfaces, 2019, 11, 20973-20978.	4.0	29
34	Collective Modes and the Periodicity of Quantum Hall Stripes. Physical Review Letters, 2011, 106, 206804.	2.9	27
35	A cascade of phase transitions in an orbitally mixed half-filled Landau level. Science Advances, 2018, 4, eaat8742.	4.7	27
36	Competing correlated states around the zero-field Wigner crystallization transition of electrons in two dimensions. Nature Materials, 2022, 21, 311-316.	13.3	25

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37	Signatures for Wigner Crystal Formation in the Chemical Potential of a Two-Dimensional Electron System. Physical Review Letters, 2014, 113, 076804.	2.9	24
38	Optical probing of MgZnO/ZnO heterointerface confinement potential energy levels. Applied Physics Letters, 2015, 106, .	1.5	23
39	Microwave magnetoplasma resonances of two-dimensional electrons in MgZnO/ZnO heterojunctions. Physical Review B, 2015, 91, .	1.1	22
40	Anomalous-Filling-Factor-Dependent Nuclear-Spin Polarization in a 2D Electron System. Physical Review Letters, 2004, 92, 086802.	2.9	18
41	Ultrahigh-frequency surface acoustic waves for finite wave-vector spectroscopy of two-dimensional electrons. Applied Physics Letters, 2004, 85, 4526.	1.5	17
42	Microwave-Induced Oscillations in Magnetocapacitance: Direct Evidence for Nonequilibrium Occupation of Electronic States. Physical Review Letters, 2016, 117, 176801.	2.9	17
43	Random Flips of Electric Field in Microwave-Induced States with Spontaneously Broken Symmetry. Physical Review Letters, 2015, 114, 176808.	2.9	15
44	Nature of the Spin Transition in the Half-filled Landau Level. Physical Review Letters, 2009, 102, 046803.	2.9	13
45	Local compressibility measurement of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>Î½</mml:mi><mml:mrow><mml:mi>t</mml:mi><mml:mi>o</mml:mi><mml:mi>t</mml:mi></mml:mrow></mml:msub><mml:mo>=</mml:mo></mml:mrow></mml:math>1 Hall state in a bilayer electron system. Physical Review B, 2013, 87, .	1.1	13
46	Dispersion of the Composite-Fermion Cyclotron-Resonance Mode. Physical Review Letters, 2007, 98, 066403.	2.9	12
47	Current-induced nuclear spin depolarization at Landau level filling factor<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î½</mml:mi></mml:math><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mo>=</mml:mo></mml:mrow></mml:math>1/2. Physical Review B, 2012, 86, .	1.1	12
48	Detection of the Electron Spin Resonance of Two-Dimensional Electrons at Large Wave Vectors. Physical Review Letters, 2006, 96, 126807.	2.9	11
49	Odd Integer Quantum Hall States with Interlayer Coherence in Twisted Bilayer Graphene. Nano Letters, 2021, 21, 4249-4254.	4.5	11
50	Probing Exfoliated Graphene Layers and Their Lithiation with Microfocused X-rays. Nano Letters, 2019, 19, 3634-3640.	4.5	10
51	Characterization of individual layers in a bilayer electron system produced in a wide quantum well. Journal of Applied Physics, 2018, 123, .	1.1	9
52	Ballistic transport in periodically modulated MgZnO/ZnO two-dimensional electron systems. Applied Physics Letters, 2019, 115, 153101.	1.5	6
53	Quantum Effects in the Capacitance of Field-Effect Transistors with a Double Quantum Well. JETP Letters, 2019, 110, 424-429.	0.4	6
54	Quasiparticle Tunneling across an Exciton Condensate. Physical Review Letters, 2020, 124, 246801.	2.9	6

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55	Nuclear-Electron Spin Interactions in the Quantum Hall Regime. Springer Series in Solid-state Sciences, 2008, , 347-388.	0.3	5
56	A plane mystery. Nature Physics, 2007, 3, 370-372.	6.5	4
57	Two-Dimensional Quantum Hall Effect and Zero Energy State in Few-Layer ZrTe₅. Nano Letters, 2021, 21, 5998-6004.	4.5	4
58	Capacitive detection of magnetic field induced quantum phase transitions in an imbalanced bilayer electron system. Physical Review B, 2020, 102, .	1.1	4
59	Wettability Engineering for Studying Ion Transport in 2D Layered Materials. Advanced Materials Interfaces, 2021, 8, 2001453.	1.9	3
60	Anomalously large spin-current voltages on the surface of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SmB</mml:mi><mml:mn>6</mml:mn></mml:msub></mml:math> Physical Review B, 2019, 100, .	1.1	2
61	Device level reversible potassium intercalation into bilayer graphene. 2D Materials, 2022, 9, 025020.	2.0	2
62	Electron-Nuclear Spin Interactions in the Quantum Hall Regime. Springer Series in Solid-state Sciences, 2017, , 431-475.	0.3	0
63	Magneto-Oscillations of the Charge of a Field-Effect Transistor That Are due to a Microwave-Induced Nonequilibrium Electron Energy Distribution. JETP Letters, 2020, 111, 562-567.	0.4	0
64	In situ Raman spectroscopy across superconducting transition of liquid-gated MoS2. Applied Physics Letters, 2022, 120, 053106.	1.5	0