ClÃ©ment Faugeras

List of Publications by Year
in descending order

116 papers	5,356 citations	94269 37 h-index	85405 71 g-index
118 all docs	118 docs citations	118 times ranked	6558 citing authors

#	Article	IF	Citations
1	Approaching the Dirac Point in High-Mobility Multilayer Epitaxial Graphene. Physical Review Letters, 2008, 101, 267601.	2.9	560
2	Thermal Conductivity of Graphene in Corbino Membrane Geometry. ACS Nano, 2010, 4, 1889-1892.	7.3	349
3	Few-layer graphene on SiC, pyrolitic graphite, and graphene: A Raman scattering study. Applied Physics Letters, 2008, 92, .	1.5	276
4	Excitonic resonances in thin films of WSe₂: from monolayer to bulk material. Nanoscale, 2015, 7, 10421-10429.	2.8	275
5	How Perfect Can Graphene Be?. Physical Review Letters, 2009, 103, 136403.	2.9	206
6	Brightening of dark excitons in monolayers of semiconducting transition metal dichalcogenides. 2D Materials, 2017, 4, 021003.	2.0	192
7	Observation of three-dimensional massless Kane fermions in a zinc-blende crystal. Nature Physics, 2014, 10, 233-238.	6.5	190
8	Optical properties of atomically thin transition metal dichalcogenides: observations and puzzles. Nanophotonics, 2017, 6, 1289-1308.	2.9	165
9	Radiatively Limited Dephasing and Exciton Dynamics in MoSe₂ Monolayers Revealed with Four-Wave Mixing Microscopy. Nano Letters, 2016, 16, 5333-5339.	4.5	133
10	Epitaxial graphene electronic structure and transport. Journal Physics D: Applied Physics, 2010, 43, 374007.	1.3	119
11	Multiphonon resonant Raman scattering in MoS₂. Applied Physics Letters, 2014, 104, 092106.	1.5	118
12	Resonance effects in the Raman scattering of monolayer and few-layer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoSe</mml:mi><mml:mn>2</mml:mn></mml:msub></m Physical Review B, 2016, 93, .	1.1	115
13	High-Energy Limit of Massless Dirac Fermions in Multilayer Graphene using Magneto-Optical Transmission Spectroscopy. Physical Review Letters, 2008, 100, 087401.	2.9	111
14	Integer Quantum Hall Effect in Trilayer Graphene. Physical Review Letters, 2011, 107, 126806.	2.9	94
15	Magneto-Optical Signature of Massless Kane Electrons in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:msub><mml:mrow><mml:mi>Cd</mml:mi></mml:mrow><mml:mrow><mml:mn>3 Physical Review Letters, 2016, 117, 136401.	2.9	93
16	Quasiclassical cyclotron resonance of Dirac fermions in highly doped graphene. Physical Review B, 2010, 82, .	1.1	86
17	Measurement of the spin-forbidden dark excitons in MoS2 and MoSe2 monolayers. Nature Communications, 2020, 11, 4037.	5.8	86
18	Graphite from the Viewpoint of Landau Level Spectroscopy: An Effective Graphene Bilayer and Monolayer. Physical Review Letters, 2009, 102, 166401.	2.9	85

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19	Tuning the Electron-Phonon Coupling in Multilayer Graphene with Magnetic Fields. Physical Review Letters, 2009, 103, 186803.	2.9	85
20	Magneto-Raman Scattering of Graphene on Graphite: Electronic and Phonon Excitations. Physical Review Letters, 2011, 107, 036807.	2.9	77
21	Dirac Fermions at the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>H</mml:mi></mml:math>Point of Graphite: Magnetotransmission Studies. Physical Review Letters, 2008, 100, 136403.	2.9	73
22	Magnon bound states versus anyonic Majorana excitations in the Kitaev honeycomb magnet Î±-RuCl3. Nature Communications, 2020, 11, 1603.	5.8	72
23	Magneto-Optics of Massive Dirac Fermions in Bulk<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow><mml:mi>Bi</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub><mml:msub><m Physical Review Letters, 2015, 114, 186401.	2.9	65
24	Singlet and triplet trions in WS₂ monolayer encapsulated in hexagonal boron nitride. Nanotechnology, 2018, 29, 325705.	1.3	63
25	Tuning Valley Polarization in a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ with a Tiny Magnetic Field. Physical Review X, 2016, 6, .	2.8	58
26	Carrier Scattering from Dynamical Magnetoconductivity in Quasineutral Epitaxial Graphene. Physical Review Letters, 2011, 107, 216603.	2.9	57
27	Fine structure of zero-mode Landau levels in HgTe/HgxCd1â^'xTe quantum wells. Physical Review B, 2011, 83, .	1.1	56
28	Energy Spectrum of Two-Dimensional Excitons in a Nonuniform Dielectric Medium. Physical Review Letters, 2019, 123, 136801.	2.9	56
29	Landau Level Spectroscopy of Electron-Electron Interactions in Graphene. Physical Review Letters, 2015, 114, 126804.	2.9	52
30	Rhombohedral Multilayer Graphene: A Magneto-Raman Scattering Study. Nano Letters, 2016, 16, 3710-3716.	4.5	51
31	Upconverted electroluminescence via Auger scattering of interlayer excitons in van der Waals heterostructures. Nature Communications, 2019, 10, 2335.	5.8	51
32	Insulating state in tetralayers reveals an evenâ€"odd interaction effect in multilayer graphene. Nature Communications, 2015, 6, 6419.	5.8	50
33	Probing and Manipulating Valley Coherence of Dark Excitons in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ Physical Review Letters, 2019, 123, 096803.	2.9	49
34	Flat electronic bands in long sequences of rhombohedral-stacked graphene. Physical Review B, 2018, 97, .	1.1	46
35	Excited states of the free excitons in CuInSe2 single crystals. Applied Physics Letters, 2010, 97, .	1.5	41
36	Sub-bandgap Voltage Electroluminescence and Magneto-oscillations in a WSe₂ Light-Emitting van der Waals Heterostructure. Nano Letters, 2017, 17, 1425-1430.	4.5	41

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37	Excitation power and temperature dependence of excitons in CuInSe2. Journal of Applied Physics, 2012, 111, .	1.1	38
38	Manganese doping for enhanced magnetic brightening and circular polarization control of dark excitons in paramagnetic layered hybrid metal-halide perovskites. Nature Communications, 2021, 12, 3489.	5.8	38
39	Probing Electronic Excitations in Mono- to Pentalayer Graphene by Micro Magneto-Raman Spectroscopy. Nano Letters, 2014, 14, 4548-4553.	4.5	35
40	Excitonic Complexes in n-Doped WS₂ Monolayer. Nano Letters, 2021, 21, 2519-2525.	4.5	35
41	Magneto-optics of bilayer inclusions in multilayered epitaxial graphene on the carbon face of SiC. Physical Review B, 2011, 83, .	1.1	34
42	The lifetime of interlayer breathing modes of few-layer 2H-MoSe₂ membranes. Nanoscale, 2019, 11, 10446-10453.	2.8	34
43	Electronic excitations and electron-phonon coupling in bulk graphite through Raman scattering in high magnetic fields. Physical Review B, 2011, 84, .	1.1	33
44	Polarization-resolved magneto-Raman scattering of graphenelike domains on natural graphite. Physical Review B, 2012, 85, .	1.1	33
45	Magnetoelastic interaction in the two-dimensional magnetic material MnPS₃ studied by first principles calculations and Raman experiments. 2D Materials, 2020, 7, 035030.	2.0	32
46	Magnon polarons in the van der Waals antiferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Fe</mml:mi><mml:msub><mml:mi>PS</mml:mi><mml:m Physical Review B, 2021, 104, .	1.1	32
47	Fine structure of K-excitons in multilayers of transition metal dichalcogenides. 2D Materials, 2019, 6, 025026.	2.0	28
48	FrÃ¶hlich Mass in GaAs-Based Structures. Physical Review Letters, 2004, 92, 107403.	2.9	25
49	High-power room temperature emission quantum cascade lasers at /spl lambda/=9 /spl mu/m. IEEE Journal of Quantum Electronics, 2005, 41, 1430-1438.	1.0	25
50	Cyclotron Motion in the Vicinity of a Lifshitz Transition in Graphite. Physical Review Letters, 2012, 108, 017602.	2.9	25
51	Classical to quantum crossover of the cyclotron resonance in graphene: a study of the strength of intraband absorption. New Journal of Physics, 2012, 14, 095008.	1.2	24
52	Flipping exciton angular momentum with chiral phonons in MoSe₂/WSe₂ heterobilayers. 2D Materials, 2020, 7, 041002.	2.0	24
53	Diamagnetic shift of the A free exciton in CuGaSe2 single crystals. Applied Physics Letters, 2010, 97, 162101.	1.5	23
54	Suppressed Auger scattering and tunable light emission of Landau-quantized massless Kane electrons. Nature Photonics, 2019, 13, 783-787.	15.6	23

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55	Controlling exciton many-body states by the electric-field effect in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mn>2 Physical Review Research, 2021, 3, .	1.3	23
56	Effect of a magnetic field on the two-phonon Raman scattering in graphene. Physical Review B, 2010, 81, .	1.1	22
57	Neutral and charged dark excitons in monolayer WS₂. Nanoscale, 2020, 12, 18153-18159.	2.8	22
58	Circular dichroism of magnetophonon resonance in doped graphene. Physical Review B, 2012, 86, .	1.1	21
59	Quantum cascade lasers: The semiconductor solution for lasers in the mid- and far-infrared spectral regions. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 3533-3537.	0.8	19
60	Rydberg series of dark excitons and the conduction band spin-orbit splitting in monolayer WSe2. Communications Physics, 2021, 4, .	2.0	18
61	Raman scattering of grapheneâ€based systems in high magnetic fields. Journal of Raman Spectroscopy, 2018, 49, 146-156.	1.2	17
62	Magneto-spectroscopy of exciton Rydberg states in a CVD grown WSe2 monolayer. Applied Physics Letters, 2019, 114, .	1.5	17
63	Magneto-transmission as a probe of Dirac fermions in bulk graphite. Journal of Physics Condensed Matter, 2008, 20, 454223.	0.7	16
64	Probing the band structure of quadri-layer graphene with magneto-phonon resonance. New Journal of Physics, 2012, 14, 095007.	1.2	16
65	Energy scale of Dirac electrons in Cd3As2. Physical Review B, 2018, 97, .	1.1	16
66	Valley polarization of singlet and triplet trions in a WS₂ monolayer in magnetic fields. Physical Chemistry Chemical Physics, 2020, 22, 19155-19161.	1.3	16
67	Hyperspectral Imaging of Exciton Photoluminescence in Individual Carbon Nanotubes Controlled by High Magnetic Fields. Nano Letters, 2014, 14, 5194-5200.	4.5	15
68	High-field magnetooptical behavior of polymer-embedded single-walled carbon nanotubes. Physical Review B, 2008, 78, .	1.1	14
69	Anisotropy of effective masses in CuInSe2. Applied Physics Letters, 2012, 101, .	1.5	14
70	Magneto-optical readout of dark exciton distribution in cuprous oxide. Physical Review B, 2009, 80, .	1.1	13
71	Electronic properties of epitaxial graphene. International Journal of Nanotechnology, 2010, 7, 383.	0.1	12
72	Electrical Switch to the Resonant Magneto-Phonon Effect in Graphene. Nano Letters, 2014, 14, 1460-1466.	4.5	12

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73	Magnetophonon resonance in high-density high-mobility quantum well systems. Physical Review B, 2004, 69, .	1.1	11
74	Multidielectric response of a two-dimensional electron gas in tilted magnetic fields. Physical Review B, 2004, 70, .	1.1	11
75	Magneto-transmission of multi-layer epitaxial graphene and bulk graphite: A comparison. Solid State Communications, 2009, 149, 1128-1131.	0.9	11
76	Strong interband Faraday rotation in 3D topological insulator Bi2Se3. Scientific Reports, 2016, 6, 19087.	1.6	11
77	Evidence for nesting-driven charge density wave instabilities in the quasi-two-dimensional material <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>LaAgSb</mml:mi><mml:mn>2</mml:mn></mml:msub> Physical Review Research, 2021, 3, .	1.3	11
78	Trions in <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></mn are quantum superpositions of intra- and intervalley spin states. Physical Review B, 2022, 105, .	1.1	11
79	The effect of metallic substrates on the optical properties of monolayer MoSe2. Scientific Reports, 2020, 10, 4981.	1.6	10
80	Micro-Raman and infrared studies of multiferroic TbMn₂O₅. Journal of Physics Condensed Matter, 2016, 28, 055901.	0.7	9
81	Magneto-absorption spectra of hydrogen-like yellow exciton series in cuprous oxide: excitons in strong magnetic fields. Scientific Reports, 2018, 8, 7818.	1.6	9
82	Magneto-excitons in Cu₂O: theoretical model from weak to high magnetic fields. New Journal of Physics, 2019, 21, 103012.	1.2	9
83	Infrared magnetospectroscopy of graphite in tilted fields. Physical Review B, 2012, 86, .	1.1	8
84	Multiple magneto-phonon resonances in graphene. 2D Materials, 2016, 3, 015004.	2.0	8
85	Magnetic field induced polarization enhancement in monolayers of tungsten dichalcogenides: effects of temperature. 2D Materials, 2018, 5, 015023.	2.0	8
86	Electron-phonon coupling in the two-phonon mode ternary alloy Al 0.25 In 0.75 As/Ga 0.25 In 0.75 As quantum well. Europhysics Letters, 2004, 67, 1031-1037.	0.7	7
87	Infrared magneto-spectroscopy of two-dimensional and three-dimensional massless fermions: A comparison. Journal of Applied Physics, 2015, 117, 112803.	1.1	7
88	Poulteret al.Reply:. Physical Review Letters, 2002, 89, .	2.9	6
89	Publisherâ€™s Note: How Perfect Can Graphene Be? [Phys. Rev. Lett.103, 136403 (2009)]. Physical Review Letters, 2009, 103, .	2.9	6
90	A micro-magneto-Raman scattering study of graphene on a bulk graphite substrate. Europhysics Letters, 2014, 108, 27011.	0.7	6

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91	Radiative quantum efficiency in anInAsâˆ•AlSbintersubband transition. Physical Review B, 2006, 74, .	1.1	5
92	Evidence for magnetoplasmon character of the cyclotron resonance response of a two-dimensional electron gas. Physical Review B, 2007, 75, .	1.1	5
93	Measurement of the infrared transmission through a single doped GaAs quantum well in an external magnetic field: Evidence for polaron effects. Physical Review B, 2009, 80, .	1.1	5
94	Electron-phonon interactions in a single modulation-doped GaInAs quantum well. Europhysics Letters, 2010, 92, 37002.	0.7	5
95	Landau level spectroscopy of the PbSnSe topological crystalline insulator. Physical Review B, 2021, 103, .	1.1	5
96	FaugerasetÂal.Reply:. Physical Review Letters, 2005, 94, .	2.9	4
97	Landau levels of the C-exciton in CuInSe2 studied by magneto-transmission. Applied Physics Letters, 2014, 105, .	1.5	4
98	Time-resolved magneto-Raman study of carrier dynamics in low Landau levels of graphene. Physical Review B, 2019, 100, .	1.1	4
99	Electronâ€“phonon interaction in a doped GaAs quantum well. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 22, 586-589.	1.3	3
100	High-power spatial singlemode quantum cascade lasers at 8.9â€...[micro sign]m. Electronics Letters, 2005, 41, 418.	0.5	3
101	A Magnetoâ€Reflectivity Study of CuGaSe₂ Single Crystals. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800374.	1.2	2
102	Spatially resolved optical spectroscopy in extreme environment of low temperature, high magnetic fields and high pressure. Review of Scientific Instruments, 2021, 92, 123909.	0.6	2
103	Exchange-split multiple Rydberg series of excitons in anisotropic quasi two-dimensional ReS₂. 2D Materials, 2022, 9, 045005.	2.0	2
104	Simulation of 2D quantum effects in ultra-short channel MOSFETs by a finite element method. EPJ Applied Physics, 2001, 15, 117-121.	0.3	1
105	The influence of acceptors on cyclotron resonance in high electronic density 2DEG. Physica B: Condensed Matter, 2001, 298, 226-229.	1.3	1
106	QUANTUM EFFICIENCY OF A 2-LEVEL InAs/AlSb QUANTUM CASCADE STRUCTURE. International Journal of Modern Physics B, 2007, 21, 1471-1475.	1.0	1
107	Excited States of the A and B Free Excitons in CuInSe2. Japanese Journal of Applied Physics, 2011, 50, 05FC03.	0.8	1
108	Electronic energy band parameters of CuInSe2 : Landau levels in magnetotransmission spectra. Physical Review B, 2019, 100, .	1.1	1

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109	A Magnetoâ€Reflectivity Study of CuInTe 2 Single Crystals. Physica Status Solidi (B): Basic Research, 2020, 257, 1900464.	0.7	1
110	Polaronic interaction in a single modulation-doped GaAs quantum well with the Feynman-Hellwarth-Iddings-Platzman approximation. Physical Review B, 2021, 104, .	1.1	1
111	Magneto infrared absorption and polaron coupling in high electron density GaAs quantum well. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 12, 581-584.	1.3	0
112	Room-temperature CW operation of (lambda~9 Î¼m) InP-based quantum cascade lasers. , 2004, , .		0
113	20th International Conference on the Application of High Magnetic Fields in Semiconductor Physics (HMF-20). Journal of Physics: Conference Series, 2013, 456, 011001.	0.3	0
114	Cyclotron resonance of Kane electrons observed in Cd<inf>3</inf>As<inf>2</inf>. , 2017, , .		0
115	Manyâ€Body Effects in Suspended Graphene Probed through Magnetoâ€Phonon Resonances. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000345.	1.2	0
116	The <i>g</i>-factor of CuGaSe₂ studied by circularly polarised magneto-reflectance. Journal Physics D: Applied Physics, 2020, 53, 17LT02.	1.3	0