

# Tony F Heinz

## List of Publications by Year in descending order

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322  
papers

79,857  
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944

115  
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259  
g-index

327  
all docs

327  
docs citations

327  
times ranked

49888  
citing authors



#	ARTICLE	IF	CITATIONS
19	Performance of monolayer graphene nanomechanical resonators with electrical readout. Nature Nanotechnology, 2009, 4, 861-867.	15.6	847
20	Visualizing Individual Nitrogen Dopants in Monolayer Graphene. Science, 2011, 333, 999-1003.	6.0	774
21	Optical Properties and Band Gap of Single- and Few-Layer MoTe <sub>2</sub> Crystals. Nano Letters, 2014, 14, 6231-6236.	4.5	757
22	A wideband coherent terahertz spectroscopy system using optical rectification and electro-optic sampling. Applied Physics Letters, 1996, 69, 2321-2323.	1.5	723
23	Ultraflat graphene. Nature, 2009, 462, 339-341.	13.7	619
24	Optical spectroscopy of graphene: From the far infrared to the ultraviolet. Solid State Communications, 2012, 152, 1341-1349.	0.9	601
25	Phonon softening and crystallographic orientation of strained graphene studied by Raman spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7304-7308.	3.3	584
26	Observation of an Electric-Field-Induced Band Gap in Bilayer Graphene by Infrared Spectroscopy. Physical Review Letters, 2009, 102, 256405.	2.9	555
27	High-resolution scanning tunneling microscopy imaging of mesoscopic graphene sheets on an insulating surface. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9209-9212.	3.3	553
28	Observation of biexcitons in monolayer WSe <sub>2</sub> . Nature Physics, 2015, 11, 477-481.	6.5	531
29	Coulomb engineering of the bandgap and excitons in two-dimensional materials. Nature Communications, 2017, 8, 15251.	5.8	526
30	High-harmonic generation from an atomically thin semiconductor. Nature Physics, 2017, 13, 262-265.	6.5	514
31	Reversible Basal Plane Hydrogenation of Graphene. Nano Letters, 2008, 8, 4597-4602.	4.5	513
32	Probing the Intrinsic Properties of Exfoliated Graphene: Raman Spectroscopy of Free-Standing Monolayers. Nano Letters, 2009, 9, 346-352.	4.5	498
33	Local Polar Fluctuations in Lead Halide Perovskite Crystals. Physical Review Letters, 2017, 118, 136001.	2.9	489
34	Observation of an electrically tunable band gap in trilayer graphene. Nature Physics, 2011, 7, 944-947.	6.5	488
35	Observation of Rapid Exciton-Exciton Annihilation in Monolayer Molybdenum Disulfide. Nano Letters, 2014, 14, 5625-5629.	4.5	457
36	Second-Harmonic Rayleigh Scattering from a Sphere of Centrosymmetric Material. Physical Review Letters, 1999, 83, 4045-4048.	2.9	439

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37	In-Plane Anisotropy in Mono- and Few-Layer ReS <sub>2</sub> Probed by Raman Spectroscopy and Scanning Transmission Electron Microscopy. Nano Letters, 2015, 15, 5667-5672.	4.5	406
38	Ultrafast Photoluminescence from Graphene. Physical Review Letters, 2010, 105, 127404.	2.9	403
39	Valley Splitting and Polarization by the Zeeman Effect in Monolayer $\text{MoSe}_2$ . Physical Review Letters, 2014, 113, 266804.	2.9	395
40	Ultrafast dynamics in van der Waals heterostructures. Nature Nanotechnology, 2018, 13, 994-1003.	15.6	392
41	Experimental Evidence for Dark Excitons in Monolayer $\text{WSe}_2$ . Physical Review Letters, 2015, 115, 257403.	2.9	376
42	Population inversion and giant bandgap renormalization in atomically thin WS <sub>2</sub> layers. Nature Photonics, 2015, 9, 466-470.	15.6	366
43	Excitonic linewidth and coherence lifetime in monolayer transition metal dichalcogenides. Nature Communications, 2016, 7, 13279.	5.8	360
44	Seeing Many-Body Effects in Single- and Few-Layer Graphene: Observation of Two-Dimensional Saddle-Point Excitons. Physical Review Letters, 2011, 106, 046401.	2.9	358
45	Probing Strain-Induced Electronic Structure Change in Graphene by Raman Spectroscopy. Nano Letters, 2010, 10, 4074-4079.	4.5	357
46	Second-Harmonic Reflection from Silicon Surfaces and Its Relation to Structural Symmetry. Physical Review Letters, 1983, 51, 1983-1986.	2.9	355
47	Determination of molecular orientation of monolayer adsorbates by optical second-harmonic generation. Physical Review A, 1983, 28, 1883-1885.	1.0	336
48	Two-Dimensional Transition Metal Dichalcogenides with Tunable Direct Band Gaps: MoS <sub>2</sub> (1-x)Se <sub>2x</sub> Monolayers. Advanced Materials, 2014, 26, 1399-1404.	11.1	334
49	Energy Transfer from Individual Semiconductor Nanocrystals to Graphene. ACS Nano, 2010, 4, 2964-2968.	7.3	329
50	Observation of Excitonic Rydberg States in Monolayer MoS <sub>2</sub> and WS <sub>2</sub> by Photoluminescence Excitation Spectroscopy. Nano Letters, 2015, 15, 2992-2997.	4.5	327
51	Electrical Tuning of Exciton Binding Energies in Monolayer $\text{WS}_2$ . Physical Review Letters, 2015, 115, 126802.	2.9	323
52	Imaging Stacking Order in Few-Layer Graphene. Nano Letters, 2011, 11, 164-169.	4.5	321
53	Spectroscopy of Molecular Monolayers by Resonant Second-Harmonic Generation. Physical Review Letters, 1982, 48, 478-481.	2.9	316
54	Magnetic brightening and control of dark excitons in monolayer WSe <sub>2</sub> . Nature Nanotechnology, 2017, 12, 883-888.	15.6	315

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55	Theory of optical second-harmonic generation from a sphere of centrosymmetric material: small-particle limit. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2004, 21, 1328.	0.9	300
56	Time-Resolved Fluorescence of Carbon Nanotubes and Its Implication for Radiative Lifetimes. <i>Physical Review Letters</i> , 2004, 92, 177401.	2.9	290
57	Bright visible light emission from graphene. <i>Nature Nanotechnology</i> , 2015, 10, 676-681.	15.6	284
58	Tailoring the Electronic Structure in Bilayer Molybdenum Disulfide via Interlayer Twist. <i>Nano Letters</i> , 2014, 14, 3869-3875.	4.5	278
59	Probing Interlayer Interactions in Transition Metal Dichalcogenide Heterostructures by Optical Spectroscopy: $\text{MoS}_2/\text{WS}_2$ and $\text{MoSe}_2/\text{WSe}_2$ . <i>Nano Letters</i> , 2015, 15, 5033-5038.	4.5	277
60	Measurement of Lateral and Interfacial Thermal Conductivity of Single- and Bilayer $\text{MoS}_2$ and $\text{MoSe}_2$ Using Refined Optothermal Raman Technique. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 25923-25929.	4.0	275
61	Excitons in ultrathin organic-inorganic perovskite crystals. <i>Physical Review B</i> , 2015, 92, .	1.1	263
62	Study of Si(111) Surfaces by Optical Second-Harmonic Generation: Reconstruction and Surface Phase Transformation. <i>Physical Review Letters</i> , 1985, 54, 63-66.	2.9	262
63	Desorption of hydrogen from $\text{Si}(100)2\text{\AA}-1$ at low coverages: The influence of $\text{H}$ -bonded dimers on the kinetics. <i>Physical Review B</i> , 1992, 45, 9485-9488.	1.1	261
64	Electronic Structure of Few-Layer Graphene: Experimental Demonstration of Strong Dependence on Stacking Sequence. <i>Physical Review Letters</i> , 2010, 104, 176404.	2.9	257
65	Desorption induced by multiple electronic transitions. <i>Physical Review Letters</i> , 1992, 68, 3737-3740.	2.9	254
66	Desorption induced by femtosecond laser pulses. <i>Physical Review Letters</i> , 1990, 64, 1537-1540.	2.9	251
67	Strong Enhancement of Light-Matter Interaction in Graphene Coupled to a Photonic Crystal Nanocavity. <i>Nano Letters</i> , 2012, 12, 5626-5631.	4.5	248
68	Band Alignment in $\text{MoS}_2/\text{WS}_2$ Transition Metal Dichalcogenide Heterostructures Probed by Scanning Tunneling Microscopy and Spectroscopy. <i>Nano Letters</i> , 2016, 16, 4831-4837.	4.5	242
69	Approaching the intrinsic photoluminescence linewidth in transition metal dichalcogenide monolayers. <i>2D Materials</i> , 2017, 4, 031011.	2.0	242
70	Observation of a Transient Decrease in Terahertz Conductivity of Single-Layer Graphene Induced by Ultrafast Optical Excitation. <i>Nano Letters</i> , 2013, 13, 524-530.	4.5	241
71	Structure and Electronic Properties of Graphene Nanoislands on $\text{Co}(0001)$ . <i>Nano Letters</i> , 2009, 9, 2844-2848.	4.5	236
72	Optical Spectroscopy of Individual Single-Walled Carbon Nanotubes of Defined Chiral Structure. <i>Science</i> , 2006, 312, 554-556.	6.0	231

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73	Probing Electronic Transitions in Individual Carbon Nanotubes by Rayleigh Scattering. <i>Science</i> , 2004, 306, 1540-1543.	6.0	228
74	Reversible Surface Oxidation and Efficient Luminescence Quenching in Semiconductor Single-Wall Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2004, 126, 15269-15276.	6.6	227
75	Structural Dependence of Excitonic Optical Transitions and Band-Gap Energies in Carbon Nanotubes. <i>Nano Letters</i> , 2005, 5, 2314-2318.	4.5	226
76	Dielectric disorder in two-dimensional materials. <i>Nature Nanotechnology</i> , 2019, 14, 832-837.	15.6	223
77	Linearly Polarized Excitons in Single- and Few-Layer $\text{ReS}_2$ Crystals. <i>ACS Photonics</i> , 2016, 3, 96-101.	3.2	216
78	Graphene Plasmon Enhanced Vibrational Sensing of Surface-Adsorbed Layers. <i>Nano Letters</i> , 2014, 14, 1573-1577.	4.5	211
79	Surface-enhanced second-harmonic generation and Raman scattering. <i>Physical Review B</i> , 1983, 27, 1965-1979.	1.1	206
80	Electron transport in $\text{TiO}_2$ probed by THz time-domain spectroscopy. <i>Physical Review B</i> , 2004, 69, .	1.1	203
81	Electronically driven adsorbate excitation mechanism in femtosecond-pulse laser desorption. <i>Physical Review B</i> , 1995, 52, 6042-6056.	1.1	199
82	Optical manipulation of valley pseudospin. <i>Nature Physics</i> , 2017, 13, 26-29.	6.5	195
83	Controlling the spontaneous emission rate of monolayer $\text{MoS}_2$ in a photonic crystal nanocavity. <i>Applied Physics Letters</i> , 2013, 103, 181119.	1.5	194
84	Electron and Optical Phonon Temperatures in Electrically Biased Graphene. <i>Physical Review Letters</i> , 2010, 104, 227401.	2.9	190
85	The evolution of electronic structure in few-layer graphene revealed by optical spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 14999-15004.	3.3	189
86	Dynamics of nonthermal reactions: femtosecond surface chemistry. <i>The Journal of Physical Chemistry</i> , 1993, 97, 786-798.	2.9	188
87	Observation of rapid Auger recombination in optically excited semiconducting carbon nanotubes. <i>Physical Review B</i> , 2004, 70, .	1.1	183
88	Femtosecond time-resolved measurement of desorption. <i>Physical Review Letters</i> , 1991, 66, 3024-3027.	2.9	179
89	Energy Transfer from Quantum Dots to Graphene and $\text{MoS}_2$ : The Role of Absorption and Screening in Two-Dimensional Materials. <i>Nano Letters</i> , 2016, 16, 2328-2333.	4.5	179
90	High-Contrast Electrooptic Modulation of a Photonic Crystal Nanocavity by Electrical Gating of Graphene. <i>Nano Letters</i> , 2013, 13, 691-696.	4.5	177

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91	Probing the Dynamics of the Metallic-to-Semiconducting Structural Phase Transformation in MoS <sub>2</sub> Crystals. Nano Letters, 2015, 15, 5081-5088.	4.5	174
92	Surface Studies by Optical Second-Harmonic Generation: The Adsorption of O <sub>2</sub> , CO, and Sodium on the Rh(111) Surface. Physical Review Letters, 1984, 52, 348-351.	2.9	173
93	Electronic transitions at the CaF <sub>2</sub> /Si(111) interface probed by resonant three-wave mixing spectroscopy. Physical Review Letters, 1989, 63, 644-647.	2.9	172
94	Imaging CF <sub>3</sub> conical intersection and photodissociation dynamics with ultrafast electron diffraction. Science, 2018, 361, 64-67.	6.0	170
95	Surface diffusion of hydrogen on Si(111) 7 $\times$ 7. Physical Review Letters, 1991, 66, 1994-1997.	2.9	167
96	Coherent detection of freely propagating terahertz radiation by electro-optic sampling. Applied Physics Letters, 1996, 68, 150-152.	1.5	166
97	Water-Gated Charge Doping of Graphene Induced by Mica Substrates. Nano Letters, 2012, 12, 648-654.	4.5	166
98	Detection of Molecular Monolayers by Optical Second-Harmonic Generation. Physical Review Letters, 1981, 46, 1010-1012.	2.9	163
99	Single-shot measurement of terahertz electromagnetic pulses by use of electro-optic sampling. Optics Letters, 2000, 25, 426.	1.7	163
100	Measurement of the thermal conductance of the graphene/SiO <sub>2</sub> interface. Applied Physics Letters, 2010, 97, .	1.5	161
101	Absolute orientation of water molecules at the neat water surface. The Journal of Physical Chemistry, 1988, 92, 5074-5075.	2.9	158
102	Observation of Layer-Breathing Mode Vibrations in Few-Layer Graphene through Combination Raman Scattering. Nano Letters, 2012, 12, 5539-5544.	4.5	151
103	Directly visualizing the momentum-forbidden dark excitons and their dynamics in atomically thin semiconductors. Science, 2020, 370, 1199-1204.	6.0	149
104	Exciton polarizability in semiconductor nanocrystals. Nature Materials, 2006, 5, 861-864.	13.3	146
105	The Role of Electronic and Phononic Excitation in the Optical Response of Monolayer WS <sub>2</sub> after Ultrafast Excitation. Nano Letters, 2017, 17, 644-651.	4.5	143
106	Observation of Excitons in One-Dimensional Metallic Single-Walled Carbon Nanotubes. Physical Review Letters, 2007, 99, 227401.	2.9	138
107	Real-Space Observation of Molecular Motion Induced by Femtosecond Laser Pulses. Science, 2004, 305, 648-651.	6.0	134
108	Desorption kinetics of hydrogen from the Si(111) 7 $\times$ 7 surface. Journal of Chemical Physics, 1991, 94, 4080-4083.	1.2	133

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109	Efficient generation of neutral and charged biexcitons in encapsulated WSe <sub>2</sub> monolayers. Nature Communications, 2018, 9, 3718.	5.8	133
110	Studies of liquid surfaces by second harmonic generation. The Journal of Physical Chemistry, 1986, 90, 560-562.	2.9	131
111	Revealing multiple classes of stable quantum emitters in hexagonal boron nitride with correlated optical and electron microscopy. Nature Materials, 2020, 19, 534-539.	13.3	130
112	Temperature-Dependent Thermal Boundary Conductance of Monolayer MoS <sub>2</sub> by Raman Thermometry. ACS Applied Materials & Interfaces, 2017, 9, 43013-43020.	4.0	125
113	Strain tuning of excitons in monolayer WSe <sub>2</sub> . Physical Review B, 2018, 98, .	1.1	124
114	Time-resolved Raman spectroscopy of optical phonons in graphite: Phonon anharmonic coupling and anomalous stiffening. Physical Review B, 2009, 80, .	1.1	121
115	Infrared Interlayer Exciton Emission in MoS <sub>2</sub> /hBN Heterostructures. Physical Review Letters, 2019, 123, 247402.	1.1	119
116	Interactions between Individual Carbon Nanotubes Studied by Rayleigh Scattering Spectroscopy. Physical Review Letters, 2006, 96, 167401.	2.9	117
117	Sudden structural change at an air/binary liquid interface: Sum frequency study of the air/acetonitrile-water interface. Journal of Chemical Physics, 1993, 98, 5099-5101.	1.2	115
118	Multiphonon Relaxation Slows Singlet Fission in Crystalline Hexacene. Journal of the American Chemical Society, 2014, 136, 10654-10660.	6.6	114
119	Ultrafast Graphene Light Emitters. Nano Letters, 2018, 18, 934-940.	4.5	109
120	Auger recombination of excitons in one-dimensional systems. Physical Review B, 2006, 73, .	1.1	105
121	Ultrasensitive Plasmonic Detection of Molecules with Graphene. ACS Photonics, 2016, 3, 553-557.	3.2	104
122	Measurement of layer breathing mode vibrations in few-layer graphene. Physical Review B, 2013, 87, .	1.1	101
123	Postgrowth Tuning of the Bandgap of Single-Layer Molybdenum Disulfide Films by Sulfur/Selenium Exchange. ACS Nano, 2014, 8, 4672-4677.	7.3	101
124	Electrostatic Surface Charge at Aqueous Al <sub>2</sub> O <sub>3</sub> Single-Crystal Interfaces as Probed by Optical Second-Harmonic Generation. Journal of Physical Chemistry B, 2005, 109, 7981-7986.	1.2	99
125	Coherent interactions in pump-probe absorption measurements: the effect of phase gratings. Journal of the Optical Society of America B: Optical Physics, 1985, 2, 674.	0.9	98
126	Variable Electron-Phonon Coupling in Isolated Metallic Carbon Nanotubes Observed by Raman Scattering. Physical Review Letters, 2007, 99, 027402.	2.9	98



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127	Study of symmetry and disordering of Si(111)-7 $\times$ 7 surfaces by optical second harmonic generation. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1985, 3, 1467.	1.6	94
128	Dynamic Structural Response and Deformations of Monolayer MoS <sub>2</sub> Visualized by Femtosecond Electron Diffraction. Nano Letters, 2015, 15, 6889-6895.	4.5	93
129	Enhancing Mo:BiVO <sub>4</sub> Solar Water Splitting with Patterned Au Nanospheres by Plasmon-Induced Energy Transfer. Advanced Energy Materials, 2018, 8, 1701765.	10.2	92
130	Detection of freely propagating terahertz radiation by use of optical second-harmonic generation. Optics Letters, 1998, 23, 67.	1.7	89
131	Charge Transport and Carrier Dynamics in Liquids Probed by THz Time-Domain Spectroscopy. Physical Review Letters, 2001, 86, 340-343.	2.9	88
132	Observation of intra- and inter-band transitions in the transient optical response of graphene. New Journal of Physics, 2013, 15, 015009.	1.2	87
133	Direct Measurement of the Lifetime of Optical Phonons in Single-Walled Carbon Nanotubes. Physical Review Letters, 2008, 100, 225503.	2.9	84
134	Determination of the Young's Modulus of Structurally Defined Carbon Nanotubes. Nano Letters, 2008, 8, 4158-4161.	4.5	83
135	Second-harmonic generation and theoretical studies of protonation at the water/TiO <sub>2</sub> (110) interface. Chemical Physics Letters, 2005, 411, 399-403.	1.2	81
136	Experimental study of optical second-harmonic scattering from spherical nanoparticles. Physical Review A, 2006, 73, .	1.0	81
137	Electronic band gaps and exciton binding energies in monolayer $M_xO_y$ $W_n$ $S_m$ transition	1.1	80
138	Anisotropic Orientational Motion of Molecular Adsorbates at the Air-Water Interface. Journal of Physical Chemistry B, 1999, 103, 3425-3433.	1.2	78
139	Signatures of moiré trions in WSe <sub>2</sub> /MoSe <sub>2</sub> heterobilayers. Nature, 2021, 594, 46-50.	13.7	77
140	Origin of magnetic field enhancement in the generation of terahertz radiation from semiconductor surfaces. Optics Letters, 2001, 26, 849.	1.7	76
141	Resolving Hysteresis in Perovskite Solar Cells with Rapid Flame-Processed Cobalt-Doped TiO <sub>2</sub> . Advanced Energy Materials, 2018, 8, 1801717.	10.2	76
142	Desorption by Femtosecond Laser Pulses: An Electron-Hole Effect?. Progress of Theoretical Physics Supplement, 1991, 106, 411-418.	0.2	76
143	Intrinsic Line Shape of the Raman 2D-Mode in Freestanding Graphene Monolayers. Nano Letters, 2013, 13, 3517-3523.	4.5	75
144	Controlled argon beam-induced desulfurization of monolayer molybdenum disulfide. Journal of Physics Condensed Matter, 2013, 25, 252201.	0.7	75

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145	Free-space electro-optic detection of continuous-wave terahertz radiation. Applied Physics Letters, 1999, 75, 2524-2526.	1.5	74
146	Tuning Many-Body Interactions in Graphene: The Effects of Doping on Excitons and Carrier Lifetimes. Physical Review Letters, 2014, 112, .	2.9	74
147	Vibrationally assisted electronic desorption: Femtosecond surface chemistry of O <sub>2</sub> /Pd(111). Journal of Chemical Physics, 1994, 100, 736-739.	1.2	73
148	Probing High-Barrier Pathways of Surface Reactions by Scanning Tunneling Microscopy. Science, 2002, 296, 1838-1841.	6.0	71
149	Direct Measurement of Strain-Induced Changes in the Band Structure of Carbon Nanotubes. Physical Review Letters, 2008, 100, 136803.	2.9	70
150	Dissociative Adsorption of H <sub>2</sub> on Si(100) Induced by Atomic H. Physical Review Letters, 1999, 83, 1810-1813.	2.9	69
151	Two-dimensional imaging of continuous-wave terahertz radiation using electro-optic detection. Applied Physics Letters, 2002, 81, 963-965.	1.5	69
152	Observation of Ground- and Excited-State Charge Transfer at the C <sub>60</sub> /Graphene Interface. ACS Nano, 2015, 9, 7175-7185.	7.3	69
153	Femtosecond dynamics of solvation at the air/water interface. Chemical Physics Letters, 1999, 301, 112-120.	1.2	66
154	Measurement of the Frequency-Dependent Conductivity in Sapphire. Physical Review Letters, 2003, 90, 247401.	2.9	66
155	Rigid Band Shifts in Two-Dimensional Semiconductors through External Dielectric Screening. Physical Review Letters, 2019, 123, 206403.	2.9	65
156	Extracting subnanometer single shells from ultralong multiwalled carbon nanotubes. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 14155-14158.	3.3	64
157	Evolution of the Raman spectrum of graphene grown on copper upon oxidation of the substrate. Nano Research, 2014, 7, 1613-1622.	5.8	63
158	High-resolution spatial mapping of the temperature distribution of a Joule self-heated graphene nanoribbon. Applied Physics Letters, 2011, 99, .	1.5	62
159	Longitudinal Optical Phonons in Metallic and Semiconducting Carbon Nanotubes. Physical Review Letters, 2009, 102, 075501.	2.9	61
160	Facile growth of monolayer MoS <sub>2</sub> film areas on SiO <sub>2</sub> . European Physical Journal B, 2013, 86, 1.	0.6	61
161	Structure-Dependent Fano Resonances in the Infrared Spectra of Phonons in Few-Layer Graphene. Physical Review Letters, 2012, 108, 156801.	2.9	59
162	All-Optical Probe of Three-Dimensional Topological Insulators Based on High-Harmonic Generation by Circularly Polarized Laser Fields. Nano Letters, 2021, 21, 8970-8978.	4.5	59

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163	Coherent coupling effects in pump-probe measurements with collinear, copropagating beams. <i>Optics Letters</i> , 1984, 9, 359.	1.7	58
164	Comments on "Determination of the Nonlinear Optical Susceptibility $\chi^{(2)}$ of Surface Layers" by B. Dick et al.. <i>Applied Physics B, Photophysics and Laser Chemistry</i> , 1987, 42, 237-238.	1.5	58
165	Heterostructures based on inorganic and organic van der Waals systems. <i>APL Materials</i> , 2014, 2, .	2.2	57
166	Scanning Tunneling Microscopy and X-ray Photoelectron Spectroscopy Studies of Graphene Films Prepared by Sonication-Assisted Dispersion. <i>ACS Nano</i> , 2011, 5, 6102-6108.	7.3	56
167	Excitons and high-order optical transitions in individual carbon nanotubes: A Rayleigh scattering spectroscopy study. <i>Physical Review B</i> , 2010, 81, .	1.1	55
168	Raman spectra of out-of-plane phonons in bilayer graphene. <i>Physical Review B</i> , 2011, 84, .	1.1	55
169	Enhanced nonlinear interaction of polaritons via excitonic Rydberg states in monolayer WSe <sub>2</sub> . <i>Nature Communications</i> , 2021, 12, 2269.	5.8	55
170	Temperature dependence of the anharmonic decay of optical phonons in carbon nanotubes and graphite. <i>Physical Review B</i> , 2011, 83, .	1.1	54
171	Real-Time Observation of Interlayer Vibrations in Bilayer and Few-Layer Graphene. <i>Nano Letters</i> , 2013, 13, 4620-4623.	4.5	54
172	Graphene as an atomically thin interface for growth of vertically aligned carbon nanotubes. <i>Scientific Reports</i> , 2013, 3, 1891.	1.6	54
173	Novel Surface Vibrational Spectroscopy: Infrared-Infrared-Visible Sum-Frequency Generation. <i>Physical Review Letters</i> , 2001, 86, 1566-1569.	2.9	53
174	Probing the Optical Properties and Strain-Tuning of Ultrathin Mo <sub>1-x</sub> W <sub>x</sub> Te <sub>2</sub> . <i>Nano Letters</i> , 2018, 18, 2485-2491.	4.5	53
175	Real-Space Study of the Pathway for Dissociative Adsorption of H <sub>2</sub> on Si(001). <i>Physical Review Letters</i> , 2002, 88, 046104.	2.9	52
176	Terahertz Radiation from Semiconductors. <i>Topics in Applied Physics</i> , 0, , 1-56.	0.4	52
177	Conductivity of solvated electrons in hexane investigated with terahertz time-domain spectroscopy. <i>Journal of Chemical Physics</i> , 2004, 121, 394.	1.2	52
178	Nonlinear optical study of the Si(111) $7\bar{A}-7$ to $1\bar{A}-1$ phase transition: Superheating and the nature of the $1\bar{A}-1$ phase. <i>Physical Review B</i> , 1995, 52, 5264-5268.	1.1	51
179	Two-dimensional models for the optical response of thin films. <i>2D Materials</i> , 2018, 5, 025021.	2.0	51
180	Structure of the moiré exciton captured by imaging its electron and hole. <i>Nature</i> , 2022, 603, 247-252.	13.7	51

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181	Enhancement of Exciton-Phonon Scattering from Monolayer to Bilayer WS <sub>2</sub> . Nano Letters, 2018, 18, 6135-6143.	4.5	50
182	Recording interfacial currents on the subnanometer length and femtosecond time scale by terahertz emission. Science Advances, 2019, 5, eaau0073.	4.7	50
183	Edge Structures for Nanoscale Graphene Islands on Co(0001) Surfaces. ACS Nano, 2014, 8, 5765-5773.	7.3	49
184	Experimental measurement of the intrinsic excitonic wave function. Science Advances, 2021, 7, .	4.7	49
185	Ultrafast Supercontinuum Spectroscopy of Carrier Multiplication and Biexcitonic Effects in Excited States of PbS Quantum Dots. Nano Letters, 2012, 12, 2658-2664.	4.5	48
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