Tony F Heinz

List of Publications by Citations

283 papers	64,347 citations	108 h-index	253 g-index
327 ext. papers	72,813 ext. citations	10.1 avg, IF	7.91 L-index

#	Paper	IF	Citations
283	Atomically thin MoS□a new direct-gap semiconductor. *Physical Review Letters*, **2010**, 105, 136805	7.4	10306
282	Progress, challenges, and opportunities in two-dimensional materials beyond graphene. *ACS Nano*, **2013**, 7, 2898-926	16.7	3414
281	Anomalous lattice vibrations of single- and few-layer MoS2. *ACS Nano*, **2010**, 4, 2695-700	16.7	3330
280	Control of valley polarization in monolayer MoS2 by optical helicity. *Nature Nanotechnology*, **2012**, 7, 494-8	28.7	2670
279	Tightly bound trions in monolayer MoS2. *Nature Materials*, **2013**, 12, 207-11	27	1878
278	Spin and pseudospins in layered transition metal dichalcogenides. *Nature Physics*, **2014**, 10, 343-350	16.2	1733
277	Atomically thin p-n junctions with van der Waals heterointerfaces. *Nature Nanotechnology*, **2014**, 9, 676-81	28.7	1598
276	Grains and grain boundaries in highly crystalline monolayer molybdenum disulphide. *Nature Materials*, **2013**, 12, 554-61	27	1590
275	Piezoelectricity of single-atomic-layer MoS2 for energy conversion and piezotronics. *Nature*, **2014**, 514, 470-4	50.4	1360
274	Exciton binding energy and nonhydrogenic Rydberg series in monolayer WS(2). *Physical Review Letters*, **2014**, 113, 076802	7.4	1358
273	Measurement of the optical conductivity of graphene. *Physical Review Letters*, **2008**, 101, 196405	7.4	1190
272	The optical resonances in carbon nanotubes arise from excitons. *Science*, **2005**, 308, 838-41	33.3	1009
271	Chip-integrated ultrafast graphene photodetector with high responsivity. *Nature Photonics*, **2013**, 7, 883-887	33.9	768
270	Colloquium: Excitons in atomically thin transition metal dichalcogenides. *Reviews of Modern Physics*, **2018**, 90,	40.5	766
269	Carrier dynamics in semiconductors studied with time-resolved terahertz spectroscopy. *Reviews of Modern Physics*, **2011**, 83, 543-586	40.5	753
268	Measurement of the optical dielectric function of monolayer transition-metal dichalcogenides: MoS2, MoSe2, WS2, and WSe2. *Physical Review B*, **2014**, 90,	3.3	739
267	Visualizing individual nitrogen dopants in monolayer graphene. *Science*, **2011**, 333, 999-1003	33.3	697

266	Performance of monolayer graphene nanomechanical resonators with electrical readout. *Nature Nanotechnology*, **2009**, 4, 861-7	28.7	694
265	Polaritons in layered two-dimensional materials. *Nature Materials*, **2017**, 16, 182-194	27	665
264	Probing symmetry properties of few-layer MoS2 and h-BN by optical second-harmonic generation. *Nano Letters*, **2013**, 13, 3329-33	11.5	649
263	A wideband coherent terahertz spectroscopy system using optical rectification and electro-optic sampling. *Applied Physics Letters*, **1996**, 69, 2321-2323	3.4	577
262	Optical properties and band gap of single- and few-layer MoTe2 crystals. *Nano Letters*, **2014**, 14, 6231-6	11.5	540
261	Ultraflat graphene. *Nature*, **2009**, 462, 339-41	50.4	527
260	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, 7304-8	11.5	498
259	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, 9209-12	11.5	494
258	Optical spectroscopy of graphene: From the far infrared to the ultraviolet. *Solid State Communications*, **2012**, 152, 1341-1349	1.6	485
257	Observation of an electric-field-induced band gap in bilayer graphene by infrared spectroscopy. *Physical Review Letters*, **2009**, 102, 256405	7.4	485
256	Reversible basal plane hydrogenation of graphene. *Nano Letters*, **2008**, 8, 4597-602	11.5	479
255	Probing the intrinsic properties of exfoliated graphene: Raman spectroscopy of free-standing monolayers. *Nano Letters*, **2009**, 9, 346-52	11.5	436
254	Observation of an electrically tunable band gap in trilayer graphene. *Nature Physics*, **2011**, 7, 944-947	16.2	419
253	Observation of biexcitons in monolayer WSe2. *Nature Physics*, **2015**, 11, 477-481	16.2	399
252	Second-Harmonic Rayleigh Scattering from a Sphere of Centrosymmetric Material. *Physical Review Letters*, **1999**, 83, 4045-4048	7.4	376
251	Local Polar Fluctuations in Lead Halide Perovskite Crystals. *Physical Review Letters*, **2017**, 118, 136001	7.4	374
250	Observation of rapid exciton-exciton annihilation in monolayer molybdenum disulfide. *Nano Letters* , **2014**, 14, 5625-9	11.5	358
249	Coulomb engineering of the bandgap and excitons in two-dimensional materials. *Nature Communications*, **2017**, 8, 15251	17.4	334

248	Ultrafast photoluminescence from graphene. *Physical Review Letters*, **2010**, 105, 127404	7.4	332
247	In-Plane Anisotropy in Mono- and Few-Layer ReS2 Probed by Raman Spectroscopy and Scanning Transmission Electron Microscopy. *Nano Letters*, **2015**, 15, 5667-72	11.5	327
246	High-harmonic generation from an atomically thin semiconductor. *Nature Physics*, **2017**, 13, 262-265	16.2	320
245	Second-Harmonic Reflection from Silicon Surfaces and Its Relation to Structural Symmetry. *Physical Review Letters*, **1983**, 51, 1983-1986	7.4	317
244	Seeing many-body effects in single- and few-layer graphene: observation of two-dimensional saddle-point excitons. *Physical Review Letters*, **2011**, 106, 046401	7.4	315
243	Determination of molecular orientation of monolayer adsorbates by optical second-harmonic generation. *Physical Review A*, **1983**, 28, 1883-1885	2.6	315
242	Probing strain-induced electronic structure change in graphene by Raman spectroscopy. *Nano Letters*, **2010**, 10, 4074-9	11.5	313
241	Energy transfer from individual semiconductor nanocrystals to graphene. *ACS Nano*, **2010**, 4, 2964-8	16.7	301
240	Valley splitting and polarization by the Zeeman effect in monolayer MoSe2. *Physical Review Letters*, **2014**, 113, 266804	7.4	299
239	Experimental Evidence for Dark Excitons in Monolayer WSe_{2}. *Physical Review Letters*, **2015**, 115, 257403	7.4	286
238	Spectroscopy of Molecular Monolayers by Resonant Second-Harmonic Generation. *Physical Review Letters*, **1982**, 48, 478-481	7.4	286
237	2-dimensional transition metal dichalcogenides with tunable direct band gaps: MoS(1-x) Se monolayers. *Advanced Materials*, **2014**, 26, 1399-404	24	282
236	Imaging stacking order in few-layer graphene. *Nano Letters*, **2011**, 11, 164-9	11.5	279
235	Time-resolved fluorescence of carbon nanotubes and its implication for radiative lifetimes. *Physical Review Letters*, **2004**, 92, 177401	7.4	269
234	Population inversion and giant bandgap renormalization in atomically thin WS2 layers. *Nature Photonics*, **2015**, 9, 466-470	33.9	260
233	Observation of Excitonic Rydberg States in Monolayer MoS2 and WS2 by Photoluminescence Excitation Spectroscopy. *Nano Letters*, **2015**, 15, 2992-7	11.5	259
232	Theory of optical second-harmonic generation from a sphere of centrosymmetric material: small-particle limit. *Journal of the Optical Society of America B: Optical Physics*, **2004**, 21, 1328	1.7	255
231	Desorption of hydrogen from Si(100)2 x 1 at low coverages: The influence of pi -bonded dimers on the kinetics. *Physical Review B*, **1992**, 45, 9485-9488	3.3	255

230	Excitonic linewidth and coherence lifetime in monolayer transition metal dichalcogenides. *Nature Communications*, **2016**, 7, 13279	17.4	248
229	Electrical Tuning of Exciton Binding Energies in Monolayer WS_{2}. *Physical Review Letters*, **2015**, 115, 126802	7.4	248
228	Study of Si(111) surfaces by optical second-harmonic generation: Reconstruction and surface phase transformation. *Physical Review Letters*, **1985**, 54, 63-66	7.4	240
227	Desorption induced by multiple electronic transitions. *Physical Review Letters*, **1992**, 68, 3737-3740	7.4	237
226	Desorption induced by femtosecond laser pulses. *Physical Review Letters*, **1990**, 64, 1537-1540	7.4	232
225	Bright visible light emission from graphene. *Nature Nanotechnology*, **2015**, 10, 676-81	28.7	226
224	Electronic structure of few-layer graphene: experimental demonstration of strong dependence on stacking sequence. *Physical Review Letters*, **2010**, 104, 176404	7.4	221
223	Reversible surface oxidation and efficient luminescence quenching in semiconductor single-wall carbon nanotubes. *Journal of the American Chemical Society*, **2004**, 126, 15269-76	16.4	216
222	Ultrafast dynamics in van der Waals heterostructures. *Nature Nanotechnology*, **2018**, 13, 994-1003	28.7	216
221	Probing Interlayer Interactions in Transition Metal Dichalcogenide Heterostructures by Optical Spectroscopy: MoS2/WS2 and MoSe2/WSe2. *Nano Letters*, **2015**, 15, 5033-8	11.5	214
220	Tailoring the electronic structure in bilayer molybdenum disulfide via interlayer twist. *Nano Letters*, **2014**, 14, 3869-75	11.5	213
219	Magnetic brightening and control of dark excitons in monolayer WSe. *Nature Nanotechnology*, **2017** , 12, 883-888	28.7	213
218	Structure and electronic properties of graphene nanoislands on Co(0001). *Nano Letters*, **2009**, 9, 2844-8	11.5	213
217	Structural dependence of excitonic optical transitions and band-gap energies in carbon nanotubes. *Nano Letters*, **2005**, 5, 2314-8	11.5	211
216	Optical spectroscopy of individual single-walled carbon nanotubes of defined chiral structure. *Science*, **2006**, 312, 554-6	33.3	208
215	Excitons in ultrathin organic-inorganic perovskite crystals. *Physical Review B*, **2015**, 92,	3.3	206
214	Strong enhancement of light-matter interaction in graphene coupled to a photonic crystal nanocavity. *Nano Letters*, **2012**, 12, 5626-31	11.5	204
213	Probing electronic transitions in individual carbon nanotubes by Rayleigh scattering. *Science*, **2004**, 306, 1540-3	33.3	200

212	Measurement of Lateral and Interfacial Thermal Conductivity of Single- and Bilayer MoS2 and MoSe2 Using Refined Optothermal Raman Technique. *ACS Applied Materials & Interfaces*, **2015**, 7, 25923-9	9.5	195
211	Surface-enhanced second-harmonic generation and Raman scattering. *Physical Review B*, **1983**, 27, 1965-1979	3.7	190
210	Approaching the intrinsic photoluminescence linewidth in transition metal dichalcogenide monolayers. *2D Materials*, **2017**, 4, 031011	5.9	188
209	Electronically driven adsorbate excitation mechanism in femtosecond-pulse laser desorption. *Physical Review B*, **1995**, 52, 6042-6056	3.3	184
208	Electron transport in TiO2 probed by THz time-domain spectroscopy. *Physical Review B*, **2004**, 69,	3.3	183
207	Observation of a transient decrease in terahertz conductivity of single-layer graphene induced by ultrafast optical excitation. *Nano Letters*, **2013**, 13, 524-30	11.5	179
206	Graphene plasmon enhanced vibrational sensing of surface-adsorbed layers. *Nano Letters*, **2014**, 14, 1573-7	11.5	174
205	Dynamics of nonthermal reactions: femtosecond surface chemistry. *The Journal of Physical Chemistry*, **1993**, 97, 786-798		172
204	Band Alignment in MoS2/WS2 Transition Metal Dichalcogenide Heterostructures Probed by Scanning Tunneling Microscopy and Spectroscopy. *Nano Letters*, **2016**, 16, 4831-7	11.5	169
203	Linearly Polarized Excitons in Single- and Few-Layer ReS2 Crystals. *ACS Photonics*, **2016**, 3, 96-101	6.3	169
202	Observation of rapid Auger recombination in optically excited semiconducting carbon nanotubes. *Physical Review B*, **2004**, 70,	3.3	166
201	Femtosecond time-resolved measurement of desorption. *Physical Review Letters*, **1991**, 66, 3024-3027	7.4	166
200	Electron and optical phonon temperatures in electrically biased graphene. *Physical Review Letters*, **2010**, 104, 227401	7.4	162
199	The evolution of electronic structure in few-layer graphene revealed by optical spectroscopy. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 14999-5004	11.5	161
198	Surface diffusion of hydrogen on Si(111)7 x 7. *Physical Review Letters*, **1991**, 66, 1994-1997	7.4	158
197	Electronic transitions at the CaF2/Si(111) interface probed by resonant three-wave mixing spectroscopy. *Physical Review Letters*, **1989**, 63, 644-647	7.4	156
196	Controlling the spontaneous emission rate of monolayer MoS in a photonic crystal nanocavity. *Applied Physics Letters*, **2013**, 103, 181119	3.4	155
195	Detection of Molecular Monolayers by Optical Second-Harmonic Generation. *Physical Review Letters*, **1981**, 46, 1010-1012	7.4	154

194	High-contrast electrooptic modulation of a photonic crystal nanocavity by electrical gating of graphene. *Nano Letters*, **2013**, 13, 691-6	11.5	151
193	Surface Studies by Optical Second-Harmonic Generation: The Adsorption of O2, CO, and Sodium on the Rh(111) Surface. *Physical Review Letters*, **1984**, 52, 348-351	7.4	150
192	Measurement of the thermal conductance of the graphene/SiO2 interface. *Applied Physics Letters*, **2010**, 97, 221904	3.4	148
191	Water-gated charge doping of graphene induced by mica substrates. *Nano Letters*, **2012**, 12, 648-54	11.5	146
190	Absolute orientation of water molecules at the neat water surface. *The Journal of Physical Chemistry*, **1988**, 92, 5074-5075		145
189	Energy Transfer from Quantum Dots to Graphene and MoS2: The Role of Absorption and Screening in Two-Dimensional Materials. *Nano Letters*, **2016**, 16, 2328-33	11.5	140
188	Observation of layer-breathing mode vibrations in few-layer graphene through combination Raman scattering. *Nano Letters*, **2012**, 12, 5539-44	11.5	134
187	Probing the Dynamics of the Metallic-to-Semiconducting Structural Phase Transformation in MoS2 Crystals. *Nano Letters*, **2015**, 15, 5081-8	11.5	132
186	Optical manipulation of valley pseudospin. *Nature Physics*, **2017**, 13, 26-29	16.2	128
185	Coherent detection of freely propagating terahertz radiation by electro-optic sampling. *Applied Physics Letters*, **1996**, 68, 150-152	3.4	126
184	Dielectric disorder in two-dimensional materials. *Nature Nanotechnology*, **2019**, 14, 832-837	28.7	125
183	Desorption kinetics of hydrogen from the Si(111)7⨯7 surface. *Journal of Chemical Physics*, **1991**, 94, 4080-4083	3.1	125
182	Observation of excitons in one-dimensional metallic single-walled carbon nanotubes. *Physical Review Letters*, **2007**, 99, 227401	7.4	124
181	Real-space observation of molecular motion induced by femtosecond laser pulses. *Science*, **2004**, 305, 648-51	33.3	120
180	Imaging CFI conical intersection and photodissociation dynamics with ultrafast electron diffraction. *Science*, **2018**, 361, 64-67	33.3	117
179	Studies of liquid surfaces by second harmonic generation. *The Journal of Physical Chemistry*, **1986**, 90, 560-562		115
178	Exciton polarizability in semiconductor nanocrystals. *Nature Materials*, **2006**, 5, 861-4	27	114
177	Single-shot measurement of terahertz electromagnetic pulses by use of electro-optic sampling. *Optics Letters*, **2000**, 25, 426-8	3	111

176	Interactions between individual carbon nanotubes studied by Rayleigh scattering spectroscopy. *Physical Review Letters*, **2006**, 96, 167401	7.4	109
175	The Role of Electronic and Phononic Excitation in the Optical Response of Monolayer WS after Ultrafast Excitation. *Nano Letters*, **2017**, 17, 644-651	11.5	106
174	Time-resolved Raman spectroscopy of optical phonons in graphite: Phonon anharmonic coupling and anomalous stiffening. *Physical Review B*, **2009**, 80,	3.3	105
173	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	3.9	103
172	Multiphonon relaxation slows singlet fission in crystalline hexacene. *Journal of the American Chemical Society*, **2014**, 136, 10654-60	16.4	92
171	Variable electron-phonon coupling in isolated metallic carbon nanotubes observed by Raman scattering. *Physical Review Letters*, **2007**, 99, 027402	7.4	91
170	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	1.7	91
169	Study of symmetry and disordering of Si(111)-7×7 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		90
168	Measurement of layer breathing mode vibrations in few-layer graphene. *Physical Review B*, **2013**, 87,	3.3	89
167	Postgrowth tuning of the bandgap of single-layer molybdenum disulfide films by sulfur/selenium exchange. *ACS Nano*, **2014**, 8, 4672-7	16.7	88
166	Electrostatic surface charge at aqueous/alpha-Al2O3 single-crystal interfaces as probed by optical second-harmonic generation. *Journal of Physical Chemistry B*, **2005**, 109, 7981-6	3.4	88
165	Temperature-Dependent Thermal Boundary Conductance of Monolayer MoS by Raman Thermometry. *ACS Applied Materials & Interfaces*, **2017**, 9, 43013-43020	9.5	87
164	Auger recombination of excitons in one-dimensional systems. *Physical Review B*, **2006**, 73,	3.3	87
163	Ultrasensitive Plasmonic Detection of Molecules with Graphene. *ACS Photonics*, **2016**, 3, 553-557	6.3	80
162	Efficient generation of neutral and charged biexcitons in encapsulated WSe monolayers. *Nature Communications*, **2018**, 9, 3718	17.4	80
161	Direct measurement of the lifetime of optical phonons in single-walled carbon nanotubes. *Physical Review Letters*, **2008**, 100, 225503	7.4	77
160	Desorption by Femtosecond Laser Pulses: An Electron-Hole Effect?. *Progress of Theoretical Physics Supplement*, **1991**, 106, 411-418		76
159	Ultrafast Graphene Light Emitters. *Nano Letters*, **2018**, 18, 934-940	11.5	75

158	Second-harmonic generation and theoretical studies of protonation at the water/TiO2 (110) interface. *Chemical Physics Letters*, **2005**, 411, 399-403	2.5	74
157	Experimental study of optical second-harmonic scattering from spherical nanoparticles. *Physical Review A*, **2006**, 73,	2.6	73
156	Anisotropic Orientational Motion of Molecular Adsorbates at the Air Water Interface. *Journal of Physical Chemistry B*, **1999**, 103, 3425-3433	3.4	73
155	Vibrationally assisted electronic desorption: Femtosecond surface chemistry of O2/Pd(111). *Journal of Chemical Physics*, **1994**, 100, 736-739	3.9	73
154	Charge transport and carrier dynamics in liquids probed by THz time-domain spectroscopy. *Physical Review Letters*, **2001**, 86, 340-3	7.4	72
153	Dynamic Structural Response and Deformations of Monolayer MoS2 Visualized by Femtosecond Electron Diffraction. *Nano Letters*, **2015**, 15, 6889-95	11.5	70
152	Determination of the young's modulus of structurally defined carbon nanotubes. *Nano Letters*, **2008**, 8, 4158-61	11.5	70
151	Detection of freely propagating terahertz radiation by use of optical second-harmonic generation. *Optics Letters*, **1998**, 23, 67-9	3	70
150	Strain tuning of excitons in monolayer WSe2. *Physical Review B*, **2018**, 98,	3.3	70
149	Revealing multiple classes of stable quantum emitters in hexagonal boron nitride with correlated optical and electron microscopy. *Nature Materials*, **2020**, 19, 534-539	27	68
148	Probing high-barrier pathways of surface reactions by scanning tunneling microscopy. *Science*, **2002**, 296, 1838-41	33.3	68
147	Intrinsic line shape of the Raman 2D-mode in freestanding graphene monolayers. *Nano Letters*, **2013**, 13, 3517-23	11.5	67
146	Observation of intra- and inter-band transitions in the transient optical response of graphene. *New Journal of Physics*, **2013**, 15, 015009	2.9	66
145	Dissociative Adsorption of H2 on Si(100) Induced by Atomic H. *Physical Review Letters*, **1999**, 83, 1810-1813	7.4	65
144	Direct measurement of strain-induced changes in the band structure of carbon nanotubes. *Physical Review Letters*, **2008**, 100, 136803	7.4	64
143	Electronic band gaps and exciton binding energies in monolayer MoxW1 S2 transition metal dichalcogenide alloys probed by scanning tunneling and optical spectroscopy. *Physical Review B*, **2016**, 94,	3.3	61
142	High-resolution spatial mapping of the temperature distribution of a Joule self-heated graphene nanoribbon. *Applied Physics Letters*, **2011**, 99, 183105	3.4	61
141	Observation of Ground- and Excited-State Charge Transfer at the C60/Graphene Interface. *ACS Nano*, **2015**, 9, 7175-85	16.7	60

140	Enhancing Mo:BiVO4 Solar Water Splitting with Patterned Au Nanospheres by Plasmon-Induced Energy Transfer. *Advanced Energy Materials*, **2018**, 8, 1701765	21.8	60
139	Extracting subnanometer single shells from ultralong multiwalled carbon nanotubes. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 14155-8	11.5	59
138	Femtosecond dynamics of solvation at the air/water interface. *Chemical Physics Letters*, **1999**, 301, 112-120	2.9	59
137	Controlled argon beam-induced desulfurization of monolayer molybdenum disulfide. *Journal of Physics Condensed Matter*, **2013**, 25, 252201	1.8	58
136	Two-dimensional imaging of continuous-wave terahertz radiation using electro-optic detection. *Applied Physics Letters*, **2002**, 81, 963-965	3.4	58
135	Free-space electro-optic detection of continuous-wave terahertz radiation. *Applied Physics Letters*, **1999**, 75, 2524-2526	3.4	58
134	Tuning Many-Body Interactions in Graphene: The Effects of Doping on Excitons and Carrier Lifetimes. *Physical Review Letters*, **2014**, 112,	7.4	57
133	Facile growth of monolayer MoS2 film areas on SiO2. *European Physical Journal B*, **2013**, 86, 1	1.2	56
132	Infrared Interlayer Exciton Emission in MoS_{2}/WSe_{2} Heterostructures. *Physical Review Letters*, **2019**, 123, 247402	7.4	56
131	Directly visualizing the momentum-forbidden dark excitons and their dynamics in atomically thin semiconductors. *Science*, **2020**, 370, 1199-1204	33.3	55
130	Structure-dependent Fano resonances in the infrared spectra of phonons in few-layer graphene. *Physical Review Letters*, **2012**, 108, 156801	7.4	54
129	Longitudinal optical phonons in metallic and semiconducting carbon nanotubes. *Physical Review Letters*, **2009**, 102, 075501	7.4	54
128	Measurement of the frequency-dependent conductivity in sapphire. *Physical Review Letters*, **2003**, 90, 247401	7.4	54
127	Comments on Determination of the Nonlinear Optical Susceptibility χ(2) of Surface Layers by B. Dick et al.. *Applied Physics B, Photophysics and Laser Chemistry*, **1987**, 42, 237-238		54
126	Resolving Hysteresis in Perovskite Solar Cells with Rapid Flame-Processed Cobalt-Doped TiO2. *Advanced Energy Materials*, **2018**, 8, 1801717	21.8	54
125	Raman spectra of out-of-plane phonons in bilayer graphene. *Physical Review B*, **2011**, 84,	3.3	53
124	Heterostructures based on inorganic and organic van der Waals systems. *APL Materials*, **2014**, 2, 092511	5.7	52
123	Excitons and high-order optical transitions in individual carbon nanotubes: A Rayleigh scattering spectroscopy study. *Physical Review B*, **2010**, 81,	3.3	52

122	Origin of magnetic field enhancement in the generation of terahertz radiation from semiconductor surfaces. *Optics Letters*, **2001**, 26, 849-51	3	52
121	Scanning tunneling microscopy and X-ray photoelectron spectroscopy studies of graphene films prepared by sonication-assisted dispersion. *ACS Nano*, **2011**, 5, 6102-8	16.7	49
120	Temperature dependence of the anharmonic decay of optical phonons in carbon nanotubes and graphite. *Physical Review B*, **2011**, 83,	3.3	48
119	Novel surface vibrational spectroscopy: infrared-infrared-visible sum-frequency generation. *Physical Review Letters*, **2001**, 86, 1566-9	7.4	48
118	Nonlinear optical study of the Si(111)7 x 7 to 1 x 1 phase transition: Superheating and the nature of the 1 x 1 phase. *Physical Review B*, **1995**, 52, 5264-5268	3.3	48
117	Graphene as an atomically thin interface for growth of vertically aligned carbon nanotubes. *Scientific Reports*, **2013**, 3, 1891	4.9	47
116	Real-space study of the pathway for dissociative adsorption of H2 on Si(001). *Physical Review Letters*, **2002**, 88, 046104	7.4	47
115	Coherent coupling effects in pump-probe measurements with collinear, copropagating beams. *Optics Letters*, **1984**, 9, 359-61	3	46
114	Evolution of the Raman spectrum of graphene grown on copper upon oxidation of the substrate. *Nano Research*, **2014**, 7, 1613-1622	10	45
113	Conductivity of solvated electrons in hexane investigated with terahertz time-domain spectroscopy. *Journal of Chemical Physics*, **2004**, 121, 394-404	3.9	45
112	Edge structures for nanoscale graphene islands on Co(0001) surfaces. *ACS Nano*, **2014**, 8, 5765-73	16.7	44
111	Real-time observation of interlayer vibrations in bilayer and few-layer graphene. *Nano Letters*, **2013** , 13, 4620-3	11.5	44
110	Ultrafast supercontinuum spectroscopy of carrier multiplication and biexcitonic effects in excited states of PbS quantum dots. *Nano Letters*, **2012**, 12, 2658-64	11.5	41
109	Observation of electronic Raman scattering in metallic carbon nanotubes. *Physical Review Letters*, **2011**, 107, 157401	7.4	41
108	Terahertz Radiation from Semiconductors. *Topics in Applied Physics*, **2004**, 1-56	0.5	40
107	Rigid Band Shifts in Two-Dimensional Semiconductors through External Dielectric Screening. *Physical Review Letters*, **2019**, 123, 206403	7.4	39
106	Charge trapping at the low-k dielectric-silicon interface probed by the conductance and capacitance techniques. *Applied Physics Letters*, **2008**, 93, 122902	3.4	39
105	Exciton broadening in WS2/graphene heterostructures. *Physical Review B*, **2017**, 96,	3.3	38

104	Nanoscale Heterogeneities in Monolayer MoSe2 Revealed by Correlated Scanning Probe Microscopy and Tip-Enhanced Raman Spectroscopy. *ACS Applied Nano Materials*, **2018**, 1, 572-579	5.6	34
103	Probing the Optical Properties and Strain-Tuning of Ultrathin MoW Te. *Nano Letters*, **2018**, 18, 2485-2491	11.5	34
102	Metal-Semiconductor Nanoparticle Hybrids Formed by Self-Organization: A Platform to Address Exciton-Plasmon Coupling. *Nano Letters*, **2016**, 16, 4811-8	11.5	33
101	Photocurrent spectroscopy of low-k dielectric materials: Barrier heights and trap densities. *Journal of Applied Physics*, **2008**, 103, 094104	2.5	33
100	Recording interfacial currents on the subnanometer length and femtosecond time scale by terahertz emission. *Science Advances*, **2019**, 5, eaau0073	14.3	29
99	Two-dimensional models for the optical response of thin films. *2D Materials*, **2018**, 5, 025021	5.9	29
98	Dynamic Optical Tuning of Interlayer Interactions in the Transition Metal Dichalcogenides. *Nano Letters*, **2017**, 17, 7761-7766	11.5	29
97	Circularly polarized light in the single-cycle limit: The nature of highly polychromatic radiation of defined polarization. *Optics Express*, **2009**, 17, 7431-9	3.3	28
96	Enhancement of Exciton-Phonon Scattering from Monolayer to Bilayer WS. *Nano Letters*, **2018**, 18, 6135-6143	11.5	27
95	High-speed electrical sampling using optical second-harmonic generation. *Applied Physics Letters*, **1996**, 69, 746-748	3.4	26
94	Molecular-scale quantum dots from carbon nanotube heterojunctions. *Nano Letters*, **2009**, 9, 1544-8	11.5	25
93	TERAHERTZ TIME-DOMAIN SPECTROSCOPY BASED ON NONLINEAR OPTICS. *Journal of Nonlinear Optical Physics and Materials*, **2002**, 11, 31-48	0.8	25
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