

# Thomas Fennel

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

83

papers

2,313

citations

25

h-index

47

g-index

104

ext. papers

2,612

ext. citations

6

avg, IF

4.56

L-index

#	Paper	IF	Citations
83	Laser-driven nonlinear cluster dynamics. <i>Reviews of Modern Physics</i> , <b>2010</b> , 82, 1793-1842	40.5	337
82	Attosecond physics at the nanoscale. <i>Reports on Progress in Physics</i> , <b>2017</b> , 80, 054401	14.4	201
81	Controlled near-field enhanced electron acceleration from dielectric nanospheres with intense few-cycle laser fields. <i>Nature Physics</i> , <b>2011</b> , 7, 656-662	16.2	193
80	Multistep ionization of argon clusters in intense femtosecond extreme ultraviolet pulses. <i>Physical Review Letters</i> , <b>2008</b> , 100, 133401	7.4	138
79	Highly charged ions from laser-cluster interactions: local-field-enhanced impact ionization and frustrated electron-ion recombination. <i>Physical Review Letters</i> , <b>2007</b> , 99, 233401	7.4	81
78	Plasmon-enhanced electron acceleration in intense laser metal-cluster interactions. <i>Physical Review Letters</i> , <b>2007</b> , 98, 143401	7.4	78
77	Resolving ultrafast heating of dense cryogenic hydrogen. <i>Physical Review Letters</i> , <b>2014</b> , 112, 105002	7.4	70
76	The 3D-architecture of individual free silver nanoparticles captured by X-ray scattering. <i>Nature Communications</i> , <b>2015</b> , 6, 6187	17.4	67
75	Ionization dynamics of simple metal clusters in intense fields by the Thomas-Fermi-Vlasov method. <i>European Physical Journal D</i> , <b>2004</b> , 29, 367-378	1.3	64
74	Field propagation-induced directionality of carrier-envelope phase-controlled photoemission from nanospheres. <i>Nature Communications</i> , <b>2015</b> , 6, 7944	17.4	60
73	Coherent diffractive imaging of single helium nanodroplets with a high harmonic generation source. <i>Nature Communications</i> , <b>2017</b> , 8, 493	17.4	53
72	Rare-gas clusters in intense VUV, XUV and soft x-ray pulses: signatures of the transition from nanoplasma-driven cluster expansion to Coulomb explosion in ion and electron spectra. <i>New Journal of Physics</i> , <b>2011</b> , 13, 053022	2.9	53
71	Attosecond chronoscopy of electron scattering in dielectric nanoparticles. <i>Nature Physics</i> , <b>2017</b> , 13, 766-770	17.4	52
70	Ionization heating in rare-gas clusters under intense XUV laser pulses. <i>Physical Review A</i> , <b>2010</b> , 82,	2.6	51
69	Coherent electronic wave packet motion in C(60) controlled by the waveform and polarization of few-cycle laser fields. <i>Physical Review Letters</i> , <b>2015</b> , 114, 123004	7.4	46
68	Steplike intensity threshold behavior of extreme ionization in laser-driven xenon clusters. <i>Physical Review Letters</i> , <b>2010</b> , 105, 053401	7.4	39
67	Attosecond plasma wave dynamics in laser-driven cluster nanoplasmas. <i>Physical Review Letters</i> , <b>2012</b> , 108, 175007	7.4	38

66	Three-Dimensional Shapes of Spinning Helium Nanodroplets. <i>Physical Review Letters</i> , <b>2018</b> , 121, 255301	7.4	37
65	Carrier-envelope phase-tagged imaging of the controlled electron acceleration from SiO <sub>2</sub> nanospheres in intense few-cycle laser fields. <i>New Journal of Physics</i> , <b>2012</b> , 14, 075010	2.9	35
64	Tracing electron-ion recombination in nanoplasmas produced by extreme-ultraviolet irradiation of rare-gas clusters. <i>Physical Review Letters</i> , <b>2014</b> , 112, 253401	7.4	34
63	Atomic photoionization in combined intense XUV free-electron and infrared laser fields. <i>New Journal of Physics</i> , <b>2012</b> , 14, 043008	2.9	32
62	Charging of metal clusters in helium droplets exposed to intense femtosecond laser pulses. <i>Physical Chemistry Chemical Physics</i> , <b>2007</b> , 9, 4639-52	3.6	27
61	Time-resolved x-ray imaging of anisotropic nanoplasma expansion. <i>Physical Review Letters</i> , <b>2014</b> , 113, 133401	7.4	26
60	Observation of correlated electronic decay in expanding clusters triggered by near-infrared fields. <i>Nature Communications</i> , <b>2015</b> , 6, 8596	17.4	26
59	Fully microscopic analysis of laser-driven finite plasmas using the example of clusters. <i>New Journal of Physics</i> , <b>2012</b> , 14, 065011	2.9	26
58	Nanoplasmonic electron acceleration by attosecond-controlled forward rescattering in silver clusters. <i>Nature Communications</i> , <b>2017</b> , 8, 1181	17.4	25
57	Electron-relocalization dynamics in xenon clusters in intense soft-x-ray fields. <i>Physical Review A</i> , <b>2014</b> , 89,	2.6	24
56	Origin of strong-field-induced low-order harmonic generation in amorphous quartz. <i>Nature Physics</i> , <b>2020</b> , 16, 1035-1039	16.2	23
55	Ionic recoil energies in the Coulomb explosion of metal clusters. <i>European Physical Journal D</i> , <b>2001</b> , 16, 59-63	1.3	22
54	Recombination dynamics of clusters in intense extreme-ultraviolet and near-infrared fields. <i>New Journal of Physics</i> , <b>2015</b> , 17, 033043	2.9	21
53	Ionization Avalanching in Clusters Ignited by Extreme-Ultraviolet Driven Seed Electrons. <i>Physical Review Letters</i> , <b>2016</b> , 116, 033001	7.4	21
52	Competition of single and double rescattering in the strong-field photoemission from dielectric nanospheres. <i>Applied Physics B: Lasers and Optics</i> , <b>2016</b> , 122, 101	1.9	19
51	Equilibration dynamics and conductivity of warm dense hydrogen. <i>Physical Review E</i> , <b>2014</b> , 90, 013104	2.4	18
50	Explicit formulation of second and third order optical nonlinearity in the FDTD framework. <i>Computer Physics Communications</i> , <b>2018</b> , 222, 70-83	4.2	16
49	Non-resonant absorption enhancement in laser-excited simple metal clusters through electron-electron collisions. <i>Physical Review A</i> , <b>2008</b> , 77,	2.6	16

48	High-order above-threshold photoemission from nanotips controlled with two-color laser fields. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2018</b> , 51, 134001	1.3	16
47	Trapping field assisted backscattering in strong-field photoemission from dielectric nanospheres. <i>Journal of Modern Optics</i> , <b>2017</b> , 64, 1096-1103	1.1	15
46	Quenching of material dependence in few-cycle driven electron acceleration from nanoparticles under many-particle charge interaction. <i>Journal of Modern Optics</i> , <b>2017</b> , 64, 995-1003	1.1	14
45	Recombination-Enhanced Surface Expansion of Clusters in Intense Soft X-Ray Laser Pulses. <i>Physical Review Letters</i> , <b>2016</b> , 117, 153401	7.4	14
44	Accurate determination of absolute carrier-envelope phase dependence using photo-ionization. <i>Optics Letters</i> , <b>2015</b> , 40, 3137-40	3	13
43	Resonant charging of Xe clusters in helium nanodroplets under intense laser fields. <i>European Physical Journal D</i> , <b>2011</b> , 63, 281-288	1.3	13
42	Few-cycle laser driven reaction nanoscopy on aerosolized silica nanoparticles. <i>Nature Communications</i> , <b>2019</b> , 10, 4655	17.4	12
41	Real-time fragmentation dynamics of clusters ionized by intense extreme-ultraviolet pulses. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2015</b> , 48, 185101	1.3	10
40	Collision-enhanced plasmonic electron acceleration in small metal clusters. <i>New Journal of Physics</i> , <b>2012</b> , 14, 055011	2.9	10
39	Phase- and intensity-resolved measurements of above threshold ionization by few-cycle pulses. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2018</b> , 51, 134007	1.3	10
38	A sensitive EUV Schwarzschild microscope for plasma studies with sub-micrometer resolution. <i>Review of Scientific Instruments</i> , <b>2018</b> , 89, 023703	1.7	8
37	Low-Energy Electron Emission in the Strong-Field Ionization of Rare Gas Clusters. <i>Physical Review Letters</i> , <b>2018</b> , 121, 063202	7.4	8
36	Influence of wavelength and pulse duration on single-shot x-ray diffraction patterns from nonspherical nanoparticles. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2015</b> , 48, 204004	1.3	7
35	Ionization-Induced Subcycle Metallization of Nanoparticles in Few-Cycle Pulses. <i>ACS Photonics</i> , <b>2020</b> , 7, 3207-3215	6.3	7
34	Attosecond streaking metrology with isolated nanotargets. <i>Journal of Optics (United Kingdom)</i> , <b>2018</b> , 20, 024002	1.7	7
33	Signatures of transient resonance heating in photoemission from free NaCl nanoparticles in intense femtosecond laser pulses. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>2015</b> , 200, 216-221	1.7	6
32	Light wave driven electron dynamics in clusters. <i>Annalen Der Physik</i> , <b>2014</b> , 526, 135-156	2.6	6
31	Signatures of bound-state-assisted nonsequential double ionization. <i>Physical Review A</i> , <b>2009</b> , 80,	2.6	6

30	MeV femtosecond electron pulses from direct-field acceleration in low density atomic gases. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2016</b> , 49, 024001	1.3	5
29	Attosecond Nanophysics <b>2014</b> , 421-462		5
28	Time-resolved analysis of strong-field induced plasmon oscillations in metal clusters by spectral interferometry with few-cycle laser fields. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 8747-54	3.6	5
27	All-optical spatio-temporal control of electron emission from SiO <sub>2</sub> nanospheres with femtosecond two-color laser fields. <i>New Journal of Physics</i> , <b>2019</b> , 21, 073011	2.9	4
26	Ultrafast electron kinetics in short pulse laser-driven dense hydrogen. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2015</b> , 48, 224004	1.3	4
25	Spectroscopy of rare gas clusters using VUV light from a free-electron-laser. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>2007</b> , 156-158, 25-29	1.7	4
24	Nonlinear Lorentz model for the description of nonlinear optical dispersion in nanophotonics simulations [Invited]. <i>Optical Materials Express</i> , <b>2019</b> , 9, 771	2.6	4
23	Fast reconstruction of single-shot wide-angle diffraction images through deep learning. <i>Machine Learning: Science and Technology</i> , <b>2020</b> , 1, 045007	5.1	4
22	Measurement of high-dynamic range x-ray Thomson scattering spectra for the characterization of nano-plasmas at LCLS. <i>Review of Scientific Instruments</i> , <b>2016</b> , 87, 11E709	1.7	4
21	Photoelectron spectroscopy of large water clusters ionized by an XUV comb. <i>JPhys Photonics</i> , <b>2020</b> , 2, 035007	2.5	3
20	Onset of charge interaction in strong-field photoemission from nanometric needle tips. <i>Nanophotonics</i> , <b>2021</b> ,	6.3	3
19	Signatures and mechanisms of plasmon-enhanced electron emission from clusters in few-cycle laser fields. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2017</b> , 50, 224001	1.3	2
18	Dual crystal x-ray spectrometer at 1.8 keV for high repetition-rate single-photon counting spectroscopy experiments. <i>Journal of Instrumentation</i> , <b>2016</b> , 11, P08015-P08015	1	2
17	A DFT-based tight-binding approach to the self-consistent description of molecule metal-nanoparticle interactions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2019</b> , 52, 185101	1.3	2
16	Coulomb frustration of the multiphoton ionization of metallic clusters under intense EUV FEL evidenced by ion spectrometry. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2015</b> , 48, 234001	1.3	1
15	Correlated electronic decay following intense near-infrared ionization of clusters. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 635, 012025	0.3	1
14	Characterization of Laser-Induced Ionization Dynamics in Solid Dielectrics. <i>ACS Photonics</i> , <b>2022</b> , 9, 233-240	4.0	1
13	Semiclassical Description of Quantum Many-Particle Dynamics in Strong Laser Fields <b>2008</b> , 255-273		1

12	Quantum coherent diffractive imaging. <i>JPhys Photonics</i> , <b>2020</b> , 2, 024007	2.5	1
11	Strong-field physics with nanospheres. <i>Advances in Physics: X</i> , <b>2022</b> , 7,	5.1	1
10	Massively parallel microscopic particle-in-cell. <i>Computer Physics Communications</i> , <b>2017</b> , 219, 269-285	4.2	0
9	Photoemission from Nanomaterials in Strong Few-Cycle Laser Fields. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , <b>2017</b> , 283-299	0.2	0
8	VIII Microscopic particle-in-cell approach <b>2017</b> , 227-270		
7	Attosekunden-Stoppuhr für inelastische Elektronenstöße. <i>Physik in Unserer Zeit</i> , <b>2017</b> , 48, 217-218	0.1	
6	Intracluster Coulombic decay following intense NIR ionization of clusters. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 635, 102004	0.3	
5	Laser-Induced Plasma Dynamics Imaged by Femtosecond In-Line Holography. <i>Springer Proceedings in Physics</i> , <b>2015</b> , 345-347	0.2	
4	Light Wave Driven Electron Dynamics in Clusters <b>2015</b> , 119-154		
3	Fundamentals and Mechanisms of Vacuum Photoionization <b>2021</b> , 1-21		
2	Recombination-Induced Autoionization Process in Rare-Gas Clusters. <i>Springer Proceedings in Physics</i> , <b>2015</b> , 56-59	0.2	
1	Resolving the Ion and Electron Dynamics in Finite Systems Exposed to Intense Optical Laser Fields. <i>Springer Series in Materials Science</i> , <b>2010</b> , 85-113	0.9	