

Thomas Fennel

List of Publications by Year in descending order

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97
papers

2,832
citations

201674

27
h-index

175258

52
g-index

104
all docs

104
docs citations

104
times ranked

2178
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of Laser-Induced Ionization Dynamics in Solid Dielectrics. ACS Photonics, 2022, 9, 233-240.	6.6	8
2	Few-femtosecond resolved imaging of laser-driven nanoplasma expansion. New Journal of Physics, 2022, 24, 043024.	2.9	7
3	Strong-field physics with nanospheres. Advances in Physics: X, 2022, 7, .	4.1	7
4	Angle-resolved Photoelectron Spectroscopy of large Water Clusters ionized by an XUV Comb. , 2021, , .		0
5	Onset of charge interaction in strong-field photoemission from nanometric needle tips. Nanophotonics, 2021, 10, 3769-3775.	6.0	14
6	A light imprint. Nature Physics, 2021, 17, 1075-1076.	16.7	0
7	Ionization-Induced Subcycle Metallization of Nanoparticles in Few-Cycle Pulses. ACS Photonics, 2020, 7, 3207-3215.	6.6	15
8	Nonlinear Lorentz Model for Explicit Integration of Optical Nonlinearity in FDTD. , 2020, , .		0
9	Origin of strong-field-induced low-order harmonic generation in amorphous quartz. Nature Physics, 2020, 16, 1035-1039.	16.7	51
10	Quantum coherent diffractive imaging. JPhys Photonics, 2020, 2, 024007.	4.6	2
11	Photoelectron spectroscopy of large water clusters ionized by an XUV comb. JPhys Photonics, 2020, 2, 035007.	4.6	3
12	Fast reconstruction of single-shot wide-angle diffraction images through deep learning. Machine Learning: Science and Technology, 2020, 1, 045007.	5.0	4
13	Angle-resolved Photoelectron Spectroscopy of large Water Clusters ionized by an XUV Comb. , 2020, , .		0
14	A DFT-based tight-binding approach to the self-consistent description of molecule metal-nanoparticle interactions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 185101.	1.5	2
15	Few-cycle laser driven reaction nanoscopy on aerosolized silica nanoparticles. Nature Communications, 2019, 10, 4655.	12.8	19
16	Sub-Cycle Metallization of SiO2 Nanoparticles Probed via Carrier-Envelope Phase Dependent Electron Acceleration. , 2019, , .		0
17	All-optical spatio-temporal control of electron emission from SiO2 nanospheres with femtosecond two-color laser fields. New Journal of Physics, 2019, 21, 073011.	2.9	7
18	Nonlinear Lorentz model for the description of nonlinear optical dispersion in nanophotonics simulations [Invited]. Optical Materials Express, 2019, 9, 771.	3.0	8

#	ARTICLE	IF	CITATIONS
19	Study of plasma formation in solid dielectrics with the help of low-order harmonic emission. , 2019, , .		0
20	A sensitive EUV Schwarzschild microscope for plasma studies with sub-micrometer resolution. Review of Scientific Instruments, 2018, 89, 023703.	1.3	10
21	Explicit formulation of second and third order optical nonlinearity in the FDTD framework. Computer Physics Communications, 2018, 222, 70-83.	7.5	25
22	Attosecond streaking metrology with isolated nanotargets. Journal of Optics (United Kingdom), 2018, 20, 024002.	2.2	11
23	Phase- and intensity-resolved measurements of above threshold ionization by few-cycle pulses. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 134007.	1.5	14
24	Three-Dimensional Shapes of Spinning Helium Nanodroplets. Physical Review Letters, 2018, 121, 255301.	7.8	49
25	Timing the action of light on matter. Nature, 2018, 561, 314-315.	27.8	0
26	High-order above-threshold photoemission from nanotips controlled with two-color laser fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 134001.	1.5	26
27	Low-Energy Electron Emission in the Strong-Field Ionization of Rare Gas Clusters. Physical Review Letters, 2018, 121, 063202.	7.8	11
28	Single-shot diffractive imaging of individual helium nanodroplets with intense multicolor XUV pulses. , 2018, , .		0
29	Trapping field assisted backscattering in strong-field photoemission from dielectric nanospheres. Journal of Modern Optics, 2017, 64, 1096-1103.	1.3	17
30	Attosecond physics at the nanoscale. Reports on Progress in Physics, 2017, 80, 054401.	20.1	274
31	Attosecond chronoscopy of electron scattering in dielectric nanoparticles. Nature Physics, 2017, 13, 766-770.	16.7	74
32	Quenching of material dependence in few-cycle driven electron acceleration from nanoparticles under many-particle charge interaction. Journal of Modern Optics, 2017, 64, 995-1003.	1.3	14
33	Nanoplasmonic electron acceleration by attosecond-controlled forward rescattering in silver clusters. Nature Communications, 2017, 8, 1181.	12.8	31
34	Signatures and mechanisms of plasmon-enhanced electron emission from clusters in few-cycle laser fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 224001.	1.5	2
35	Coherent diffractive imaging of single helium nanodroplets with a high harmonic generation source. Nature Communications, 2017, 8, 493.	12.8	71
36	VIII Microscopic particle-in-cell approach. , 2017, , 227-270.		0

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37	Massively parallel microscopic particle-in-cell. <i>Computer Physics Communications</i> , 2017, 219, 269-285.	7.5	2
38	Strong near-field induced molecular processes on nanoparticles. , 2017, , .		0
39	All-optical spatio-temporal control of electron emission from isolated dielectric nanospheres with two-color laser pulses. , 2017, , .		0
40	Photoemission from Nanomaterials in Strong Few-Cycle Laser Fields. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , 2017, , 283-299.	0.3	1
41	NIR ionization avalanching in clusters ignited by ultrashort XUV pulses. , 2016, , .		0
42	Measurement of high-dynamic range x-ray Thomson scattering spectra for the characterization of nano-plasmas at LCLS. <i>Review of Scientific Instruments</i> , 2016, 87, 11E709.	1.3	4
43	Recombination-Enhanced Surface Expansion of Clusters in Intense Soft X-Ray Laser Pulses. <i>Physical Review Letters</i> , 2016, 117, 153401.	7.8	21
44	Dual crystal x-ray spectrometer at 1.8 keV for high repetition-rate single-photon counting spectroscopy experiments. <i>Journal of Instrumentation</i> , 2016, 11, P08015-P08015.	1.2	2
45	Ionization Avalanching in Clusters Ignited by Extreme-Ultraviolet Driven Seed Electrons. <i>Physical Review Letters</i> , 2016, 116, 033001.	7.8	28
46	Competition of single and double rescattering in the strong-field photoemission from dielectric nanospheres. <i>Applied Physics B: Lasers and Optics</i> , 2016, 122, 101.	2.2	23
47	MeV femtosecond electron pulses from direct-field acceleration in low density atomic gases. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 024001.	1.5	6
48	Coherent Diffractive Imaging of Laser-Driven Plasma Dynamics in Thin Foils. , 2016, , .		0
49	Attosecond clocking of scattering dynamics in dielectrics. , 2016, , .		0
50	Slow electrons from intense laser-cluster interactions. , 2016, , .		0
51	Correlated electronic decay following intense near-infrared ionization of clusters. <i>Journal of Physics: Conference Series</i> , 2015, 635, 012025.	0.4	2
52	Intracluster Coulombic decay following intense NIR ionization of clusters. <i>Journal of Physics: Conference Series</i> , 2015, 635, 102004.	0.4	0
53	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> , 2015, 48, 204004.	1.5	10
54	Laser-Induced Plasma Dynamics Imaged by Femtosecond In-Line Holography. <i>Springer Proceedings in Physics</i> , 2015, , 345-347.	0.2	0

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55	Observation of correlated electronic decay in expanding clusters triggered by near-infrared fields. Nature Communications, 2015, 6, 8596.	12.8	32
56	The 3D-architecture of individual free silver nanoparticles captured by X-ray scattering. Nature Communications, 2015, 6, 6187.	12.8	82
57	Real-time fragmentation dynamics of clusters ionized by intense extreme-ultraviolet pulses. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 185101.	1.5	11
58	Recombination dynamics of clusters in intense extreme-ultraviolet and near-infrared fields. New Journal of Physics, 2015, 17, 033043.	2.9	26
59	Coherent Electronic Wave Packet Motion in C_{60} by the Waveform and Polarization of Few-Cycle Laser Fields. Physical Review Letters, 2015, 114, 123004.	7.8	51
60	Signatures of transient resonance heating in photoemission from free NaCl nanoparticles in intense femtosecond laser pulses. Journal of Electron Spectroscopy and Related Phenomena, 2015, 200, 216-221.	1.7	7
61	Ultrafast electron kinetics in short pulse laser-driven dense hydrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 224004.	1.5	6
62	Accurate determination of absolute carrier-envelope phase dependence using photo-ionization. Optics Letters, 2015, 40, 3137.	3.3	14
63	Field propagation-induced directionality of carrier-envelope phase-controlled photoemission from nanospheres. Nature Communications, 2015, 6, 7944.	12.8	78
64	Coulomb frustration of the multiphoton ionization of metallic clusters under intense EUV FEL evidenced by ion spectrometry. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 234001.	1.5	1
65	Recombination-Induced Autoionization Process in Rare-Gas Clusters. Springer Proceedings in Physics, 2015, , 56-59.	0.2	0
66	Recombination dynamics in rare-gas clusters after ionization by intense XUV light. , 2014, , .		0
67	Recombination-induced autoionization process in rare-gas clusters. , 2014, , .		1
68	Electron-relocalization dynamics in xenon clusters in intense soft-x-ray fields. Physical Review A, 2014, 89, .	2.5	25
69	Tracing Electron-Ion Recombination in Nanoplasmas Produced by Extreme-Ultraviolet Irradiation of Rare-Gas Clusters. Physical Review Letters, 2014, 112, 253401.	7.8	39
70	Time-Resolved X-Ray Imaging of Anisotropic Nanoplasma Expansion. Physical Review Letters, 2014, 113, 133401.	7.8	33
71	Equilibration dynamics and conductivity of warm dense hydrogen. Physical Review E, 2014, 90, 013104.	2.1	22
72	Light wave driven electron dynamics in clusters. Annalen Der Physik, 2014, 526, 135-156.	2.4	10

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73	Resolving Ultrafast Heating of Dense Cryogenic Hydrogen. <i>Physical Review Letters</i> , 2014, 112, 105002.	7.8	95
74	Laser-Induced Plasma Dynamics Imaged by Femtosecond In-Line Holography. , 2014, , .		0
75	Collision-enhanced plasmonic electron acceleration in small metal clusters. <i>New Journal of Physics</i> , 2012, 14, 055011.	2.9	11
76	Fully microscopic analysis of laser-driven finite plasmas using the example of clusters. <i>New Journal of Physics</i> , 2012, 14, 065011.	2.9	28
77	Attosecond Plasma Wave Dynamics in Laser-Driven Cluster Nanoplasmas. <i>Physical Review Letters</i> , 2012, 108, 175007.	7.8	47
78	Carrier-envelope phase-tagged imaging of the controlled electron acceleration from SiO ₂ nanospheres in intense few-cycle laser fields. <i>New Journal of Physics</i> , 2012, 14, 075010.	2.9	37
79	Atomic photoionization in combined intense XUV free-electron and infrared laser fields. <i>New Journal of Physics</i> , 2012, 14, 043008.	2.9	36
80	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> , 2011, 13, 053022.	2.9	62
81	Controlled near-field enhanced electron acceleration from dielectric nanospheres with intense few-cycle laser fields. <i>Nature Physics</i> , 2011, 7, 656-662.	16.7	210
82	Resonant charging of Xe clusters in helium nanodroplets under intense laser fields. <i>European Physical Journal D</i> , 2011, 63, 281-288.	1.3	14
83	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> , 2011, 13, 8747.	2.8	5
84	Modelling Intense Laser Plasma Processes - Bridging the Gap Between Microscopic and Macroscopic Phenomena. , 2011, , .		0
85	Steplike Intensity Threshold Behavior of Extreme Ionization in Laser-Driven Xenon Clusters. <i>Physical Review Letters</i> , 2010, 105, 053401.	7.8	42
86	Ionization heating in rare-gas clusters under intense XUV laser pulses. <i>Physical Review A</i> , 2010, 82, , .	2.5	54
87	Laser-driven nonlinear cluster dynamics. <i>Reviews of Modern Physics</i> , 2010, 82, 1793-1842.	45.6	384
88	Resolving the Ion and Electron Dynamics in Finite Systems Exposed to Intense Optical Laser Fields. <i>Springer Series in Materials Science</i> , 2010, , 85-113.	0.6	0
89	Signatures of bound-state-assisted nonsequential double ionization. <i>Physical Review A</i> , 2009, 80, , .	2.5	6
90	Multistep Ionization of Argon Clusters in Intense Femtosecond Extreme Ultraviolet Pulses. <i>Physical Review Letters</i> , 2008, 100, 133401.	7.8	150

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91	Non-resonant absorption enhancement in laser-excited simple metal clusters through electron-electron collisions. <i>Physical Review A</i> , 2008, 77, .	2.5	17
92	Charging of metal clusters in helium droplets exposed to intense femtosecond laser pulses. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 4639.	2.8	32
93	Spectroscopy of rare gas clusters using VUV light from a free-electron-laser. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2007, 156-158, 25-29.	1.7	5
94	Highly Charged Ions from Laser-Cluster Interactions: Local-Field-Enhanced Impact Ionization and Frustrated Electron-Ion Recombination. <i>Physical Review Letters</i> , 2007, 99, 233401.	7.8	91
95	Plasmon-Enhanced Electron Acceleration in Intense Laser Metal-Cluster Interactions. <i>Physical Review Letters</i> , 2007, 98, 143401.	7.8	84
96	Ionization dynamics of simple metal clusters in intense fields by the Thomas-Fermi-Vlasov method. <i>European Physical Journal D</i> , 2004, 29, 367-378.	1.3	76
97	Ionic recoil energies in the Coulomb explosion of metal clusters. <i>European Physical Journal D</i> , 2001, 16, 59-63.	1.3	23