

Igor Litvinyuk

List of Publications by Year in descending order

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102
papers

4,098
citations

126708

33
h-index

110170

64
g-index

105
all docs

105
docs citations

105
times ranked

2090
citing authors

#	ARTICLE	IF	CITATIONS
1	Alignment-Dependent Strong Field Ionization of Molecules. <i>Physical Review Letters</i> , 2003, 90, 233003.	2.9	445
2	Direct imaging of rotational wave-packet dynamics of diatomic molecules. <i>Physical Review A</i> , 2003, 68, .	1.0	260
3	Field-Free Orientation of CO Molecules by Femtosecond Two-Color Laser Fields. <i>Physical Review Letters</i> , 2009, 103, 153002.	2.9	242
4	Attosecond angular streaking and tunnelling time in atomic hydrogen. <i>Nature</i> , 2019, 568, 75-77.	13.7	190
5	Energy transfer to a proton-transfer fluorescence probe: Tryptophan to a flavonol in human serum albumin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996, 93, 12959-12963.	3.3	172
6	Ion-Energy Dependence of Asymmetric Dissociation of D_2 by a Two-Color Laser Field. <i>Physical Review Letters</i> , 2009, 103, 223201.	2.9	148
7	Control of Electron Localization in Deuterium Molecular Ions using an Attosecond Pulse Train and a Many-Cycle Infrared Pulse. <i>Physical Review Letters</i> , 2010, 104, 023001.	2.9	129
8	Charge Resonance Enhanced Ionization of CO_2 Probed by Laser Coulomb Explosion Imaging. <i>Physical Review Letters</i> , 2011, 107, 063201.	2.9	127
9	Large-Angle Electron Diffraction Structure in Laser-Induced Rescattering from Rare Gases. <i>Physical Review Letters</i> , 2008, 100, 143002.	2.9	111
10	Time-Resolved Double Ionization with Few Cycle Laser Pulses. <i>Physical Review Letters</i> , 2003, 91, 093002.	2.9	103
11	Two-pulse alignment of molecules. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2004, 37, L43-L48.	0.6	103
12	Laser-Induced Interference, Focusing, and Diffraction of Rescattering Molecular Photoelectrons. <i>Physical Review Letters</i> , 2004, 93, 223003.	2.9	102
13	Effects of orbital symmetries in dissociative ionization of molecules by few-cycle laser pulses. <i>Physical Review A</i> , 2005, 71, .	1.0	100
14	Wavelength dependence of momentum-space images of low-energy electrons generated by short intense laser pulses at high intensities. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2006, 39, 1955-1964.	0.6	96
15	Laser Coulomb-explosion imaging of small molecules. <i>Physical Review A</i> , 2005, 71, .	1.0	94
16	Imaging the time-dependent structure of a molecule as it undergoes dynamics. <i>Physical Review A</i> , 2005, 72, .	1.0	89
17	Simultaneous real-time tracking of wave packets evolving on two different potential curves in H_2^+ and D_2^+ . <i>Physical Review A</i> , 2005, 72, .	1.0	81
18	IR-assisted ionization of helium by attosecond extreme ultraviolet radiation. <i>New Journal of Physics</i> , 2010, 12, 013008.	1.2	77

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19	Imaging of orbital electron densities by electron momentum spectroscopy – a chemical interpretation of the binary (e,2e) reaction. <i>Chemical Physics</i> , 2001, 270, 13-30.	0.9	70
20	Time-resolved Coulomb-explosion imaging of nuclear wave-packet dynamics induced in diatomic molecules by intense few-cycle laser pulses. <i>Physical Review A</i> , 2011, 83, .	1.0	68
21	Momentum imaging of doubly charged ions of Ne and Ar in the sequential ionization region. <i>Physical Review A</i> , 2005, 72, .	1.0	67
22	Shakeup Excitation during Optical Tunnel Ionization. <i>Physical Review Letters</i> , 2005, 94, 033003.	2.9	58
23	Following dynamic nuclear wave packets in N_2 following dynamic nuclear wave packets in N_2 following dynamic nuclear wave packets in N_2 following dynamic nuclear wave packets in N_2 . <i>Physical Review A</i> , 2011, 84, .	1.0	54
24	Thick-lens velocity-map imaging spectrometer with high resolution for high-energy charged particles. <i>Journal of Instrumentation</i> , 2014, 9, P05005-P05005.	0.5	49
25	Momentum-imaging investigations of the dissociation of D_2^+ and the isomerization of acetylene to vinylidene by intense short laser pulses. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2006, 39, S485-S492.	0.6	48
26	Femtosecond laser micromachining of diamond: Current research status, applications and challenges. <i>Carbon</i> , 2021, 179, 209-226.	5.4	44
27	Elusive enhanced ionization structure for H_2^+ in intense ultrashort laser pulses. <i>Physical Review A</i> , 2008, 78, .	1.0	38
28	Tracking nuclear wave-packet dynamics in molecular oxygen ions with few-cycle infrared laser pulses. <i>Physical Review A</i> , 2010, 82, .	1.0	38
29	Observing electron localization in a dissociating H_2^+ molecule in real time. <i>Nature Communications</i> , 2017, 8, 15849.	5.8	38
30	Direct Coulomb-explosion imaging of coherent nuclear dynamics induced by few-cycle laser pulses in light and heavy hydrogen. <i>Physical Review A</i> , 2008, 77, .	1.0	37
31	Momentum spectra of electrons rescattered from rare-gas targets following their extraction by one- and two-color femtosecond laser pulses. <i>Physical Review A</i> , 2011, 83, .	1.0	37
32	Coherent control of D_2^+ / H_2^+ dissociative ionization by a mid-infrared two-color laser field. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 025601.	0.6	36
33	Coherent control of D_2^+ / H_2^+ dissociative ionization by a mid-infrared two-color laser field. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 025601.	1.0	35
34	Strong-field non-sequential double ionization: wavelength dependence of ion momentum distributions for neon and argon. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2008, 41, 031001.	0.6	33
35	Real-time imaging of the nuclear dynamics in D_2^+ following dynamic nuclear wave packets in N_2 . <i>Physical Review A</i> , 2009, 79, .	1.0	33
36	Experimental observation of the elusive double-peak structure in R-dependent strong-field ionization rate of H_2^+ . <i>Scientific Reports</i> , 2015, 5, 13527.	1.6	32

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37	Attoclock and the quest for tunnelling time in strong-field physics. JPhys Photonics, 2020, 2, 042002.	2.2	31
38	Relativistic Nondipole Effects in Strong-Field Atomic Ionization at Moderate Intensities. Physical Review Letters, 2019, 123, 093201.	2.9	30
39	Valence shell orbital imaging in adamantane by electron momentum spectroscopy. Chemical Physics, 2000, 253, 41-50.	0.9	29
40	Angular dependence of the strong-field ionization measured in randomly oriented hydrogen molecules. Physical Review A, 2009, 79, .	1.0	28
41	Effect of nuclear mass on carrier-envelope-phase-controlled electron localization in dissociating molecules. Physical Review A, 2014, 89, .	1.0	26
42	Carrier-envelope-phase-dependent dissociation of hydrogen. New Journal of Physics, 2013, 15, 023034.	1.2	25
43	Transition between Mechanisms of Laser-Induced Field-Free Molecular Orientation. Physical Review Letters, 2014, 112, 113005.	2.9	23
44	Wavelength-dependent study of strong-field Coulomb explosion of hydrogen. New Journal of Physics, 2008, 10, 083011.	1.2	21
45	Vibrationally resolved structure in $\langle \mathbf{r} \rangle$ induced by intense ultrashort laser pulses. Physical Review A, 2011, 83, .	1.0	21
46	Extreme Ultraviolet Interferometer Using High-Order Harmonic Generation from Successive Sources. Physical Review Letters, 2012, 109, 263902.	2.9	21
47	Precise and Accurate Measurements of Strong-Field Photoionization and a Transferable Laser Intensity Calibration Standard. Physical Review Letters, 2016, 117, 053001.	2.9	21
48	Multi-photon resonant effects in strong-field ionization: origin of the dip in experimental longitudinal momentum distributions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, L323-L328.	0.6	20
49	Coherent control of the dissociation probability of H_2^+ in two-color fields. Physical Review A, 2016, 93, .	1.0	20
50	Subfemtosecond directional control of chemical processes in molecules. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 032002.	0.6	20
51	Electron momentum spectroscopy study of adamantane: binding energy spectra and valence orbital electron density distributions. Chemical Physics, 2000, 261, 289-300.	0.9	19
52	Resonant excitation during strong-field dissociative ionization. Physical Review A, 2005, 72, .	1.0	18
53	Experimental ionization of atomic hydrogen with few-cycle pulses. Optics Letters, 2011, 36, 3660.	1.7	18
54	Benchmarking strong-field ionization with atomic hydrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 204003.	0.6	18

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55	Observation of dynamic Stark resonances in strong-field excitation. <i>Physical Review A</i> , 2020, 101, .	1.0	18
56	An investigation of the frontier orbital electron density of the antibacterial agent urotropine by electron momentum spectroscopy. <i>Chemical Physics</i> , 2001, 263, 195-201.	0.9	16
57	Carrier-envelope phase effects in above-threshold ionization of atomic hydrogen. <i>New Journal of Physics</i> , 2013, 15, 033002.	1.2	16
58	Isotope Effect in Tunneling Ionization of Neutral Hydrogen Molecules. <i>Physical Review Letters</i> , 2016, 117, 083003.	2.9	16
59	Transverse electron momentum distributions in strong-field ionization: nondipole and Coulomb focusing effects. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020, 53, 154005.	0.6	16
60	Plasma plumes produced by laser ablation of Al with single and double pulse schemes. <i>Optics Letters</i> , 2018, 43, 6081.	1.7	14
61	Transverse electron momentum distribution in tunneling and over the barrier ionization by laser pulses with varying ellipticity. <i>Scientific Reports</i> , 2016, 6, 19002.	1.6	13
62	Dynamic modification of the fragmentation of CO^+ states generated with high-order harmonics. <i>Physical Review A</i> , 2010, 82, .	1.0	11
63	An investigation of the HOMO frontier orbital electron density distributions of NH ₃ , the methylamines and NF ₃ using DFT and electron momentum spectroscopy. <i>Chemical Physics</i> , 2001, 269, 101-106.	0.9	8
64	Time-resolved nuclear dynamics in bound and dissociating acetylene. <i>Structural Dynamics</i> , 2018, 5, 044302.	0.9	8
65	Laser-Induced Graphitization of Diamond Under 30 fs Laser Pulse Irradiation. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 2679-2685.	2.1	8
66	A Method for Separation of Homogeneous and Inhomogeneous Components of Spectral Broadening of Rigid Systems. <i>Journal of Physical Chemistry A</i> , 1997, 101, 813-816.	1.1	7
67	Wavelength and intensity effects on the dissociation of H ₂ ⁺ in intense laser fields. <i>Physical Review A</i> , 2016, 94, .	1.0	6
68	The interaction of excited atoms and few-cycle laser pulses. <i>Scientific Reports</i> , 2016, 6, 34101.	1.6	6
69	Measuring laser carrier-envelope-phase effects in the noble gases with an atomic hydrogen calibration standard. <i>Physical Review A</i> , 2017, 96, .	1.0	6
70	Spatio-temporal optimization of a laser produced Al-plasma: Generation of highly ionized species. <i>Physics of Plasmas</i> , 2016, 23, .	0.7	5
71	Carrier-Envelope Phase-Dependent Strong-Field Excitation. <i>Physical Review Letters</i> , 2022, 128, 173201.	2.9	5
72	Advanced Gouy phase high harmonics interferometer. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 094006.	0.6	3

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73	Effect of double pulse laser irradiation on the dynamics of picosecond laser-produced plasma. <i>Physics of Plasmas</i> , 2020, 27, .	0.7	3
74	Strong-field ionization of argon: Electron momentum spectra and nondipole effects. <i>Physical Review A</i> , 2022, 105, .	1.0	3
75	Ellipticity-dependent fragmentation of acetylene dications. <i>Physical Review A</i> , 2018, 97, .	1.0	2
76	Ionization of Small Molecules by Strong Laser Fields. <i>Springer Series in Optical Sciences</i> , 2008, , 185-208.	0.5	1
77	Inelastic rescattering processes in molecules measured with few-cycle laser pulses. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2009, 42, 235601.	0.6	1
78	Transverse electron momentum distribution in tunneling and over the barrier ionization by strong-field laser pulses. <i>Journal of Physics: Conference Series</i> , 2015, 635, 092073.	0.3	1
79	Time-resolved optical emission spectroscopic studies of picosecond laser produced Cr plasma. <i>Physics of Plasmas</i> , 2018, 25, 063505.	0.7	1
80	A versatile two-colour pulse generation setup with active feedback phase-locking. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2021, 54, 134005.	0.6	1
81	Probing excited states dynamics in CO cations using few-cycle IR and EUV laser pulses. <i>Journal of Physics: Conference Series</i> , 2009, 194, 032046.	0.3	0
82	Carrier-envelope phase effects in few-cycle ionisation of atomic hydrogen. , 2011, , .		0
83	Enhanced ionization in Di- and tri-atomic molecules observed with Coulomb explosion imaging. , 2011, , .		0
84	Above-threshold ionization in atomic hydrogen using intense few-cycle laser pulses. , 2011, , .		0
85	A Zeptosecond Phase Interferometer. <i>Journal of Physics: Conference Series</i> , 2012, 388, 032073.	0.3	0
86	Above-threshold ionization in atomic hydrogen using intense, few-cycle laser pulses. <i>Journal of Physics: Conference Series</i> , 2012, 388, 032055.	0.3	0
87	Optimized attosecond XUV pulses with zeptosecond timing resolution. , 2013, , .		0
88	Photoionization yield of atomic hydrogen using intense few-cycle pulses. , 2013, , .		0
89	Optimization of Attosecond XUV Pulses. <i>Journal of Physics: Conference Series</i> , 2014, 488, 032009.	0.3	0
90	Photoionization yield of atomic hydrogen using intense few-cycle pulses. <i>Journal of Physics: Conference Series</i> , 2014, 488, 032045.	0.3	0

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91	Carrier-Envelope Phase effect for Dissociation of Molecular Hydrogen. Journal of Physics: Conference Series, 2014, 488, 032027.	0.3	0
92	Effect of Nuclear Mass in Strong-Field Ionization of Hydrogen Molecules and Dissociation of Hydrogen Molecular Ions. Journal of Physics: Conference Series, 2015, 635, 112001.	0.3	0
93	The interaction of ultrashort laser pulses and exotic atoms. Journal of Physics: Conference Series, 2015, 635, 092066.	0.3	0
94	Metastable noble gas atoms in strong-field ionization experiments. High Power Laser Science and Engineering, 2016, 4, .	2.0	0
95	Using Phase Shifts from High-order Harmonic Generated Radiation to Study Nuclear Dynamics. , 2016, , .		0
96	Attoclock using Atomic Hydrogen. Journal of Physics: Conference Series, 2017, 875, 022039.	0.3	0
97	Precise calibration of few-cycle laser pulses with atomic hydrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 243501.	0.6	0
98	Intensity-dependent shift in transverse electron momentum distribution for strong field ionization. Journal of Physics: Conference Series, 2017, 875, 022020.	0.3	0
99	Directional control of dissociative ionization by a two-colour laser field. EPJ Web of Conferences, 2019, 205, 09030.	0.1	0
100	A High Order Harmonic Radiation Zeptosecond Phase Interferometer. , 2012, , .		0
101	An extreme ultraviolet interferometer using high order harmonic generation. Journal of Physics: Conference Series, 2014, 488, 012019.	0.3	0
102	Percent-level accuracy in measuring strong-field photoionization and laser intensity. , 2016, , .		0