

# 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	Strong-field ionization of argon: Electron momentum spectra and nondipole effects. <i>Physical Review A</i> , 2022, 105, .	1.0	3
2	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
3	Carrier-Envelope Phase-Dependent Strong-Field Excitation. <i>Physical Review Letters</i> , 2022, 128, 173201.	2.9	5
4	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
5	Femtosecond laser micromachining of diamond: Current research status, applications and challenges. <i>Carbon</i> , 2021, 179, 209-226.	5.4	44
6	Effect of double pulse laser irradiation on the dynamics of picosecond laser-produced plasma. <i>Physics of Plasmas</i> , 2020, 27, .	0.7	3
7	Observation of dynamic Stark resonances in strong-field excitation. <i>Physical Review A</i> , 2020, 101, .	1.0	18
8	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
9	Attoclock and the quest for tunnelling time in strong-field physics. <i>JPhys Photonics</i> , 2020, 2, 042002.	2.2	31
10	Relativistic Nondipole Effects in Strong-Field Atomic Ionization at Moderate Intensities. <i>Physical Review Letters</i> , 2019, 123, 093201.	2.9	30
11	Directional control of dissociative ionization by a two-colour laser field. <i>EPJ Web of Conferences</i> , 2019, 205, 09030.	0.1	0
12	Attosecond angular streaking and tunnelling time in atomic hydrogen. <i>Nature</i> , 2019, 568, 75-77.	13.7	190
13	Ellipticity-dependent fragmentation of acetylene dications. <i>Physical Review A</i> , 2018, 97, .	1.0	2
14	Advanced Gouy phase high harmonics interferometer. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 094006.	0.6	3
15	Time-resolved optical emission spectroscopic studies of picosecond laser produced Cr plasma. <i>Physics of Plasmas</i> , 2018, 25, 063505.	0.7	1
16	Time-resolved nuclear dynamics in bound and dissociating acetylene. <i>Structural Dynamics</i> , 2018, 5, 044302.	0.9	8
17	Plasma plumes produced by laser ablation of Al with single and double pulse schemes. <i>Optics Letters</i> , 2018, 43, 6081.	1.7	14
18	Subfemtosecond directional control of chemical processes in molecules. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2017, 50, 032002.	0.6	20

#	ARTICLE	IF	CITATIONS
19	Observing electron localization in a dissociating H <sub>2</sub> <sup>+</sup> molecule in real time. Nature Communications, 2017, 8, 15849.	5.8	38
20	Attoclock using Atomic Hydrogen. Journal of Physics: Conference Series, 2017, 875, 022039.	0.3	0
21	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
22	Measuring laser carrier-envelope-phase effects in the noble gases with an atomic hydrogen calibration standard. Physical Review A, 2017, 96, .	1.0	6
23	Intensity-dependent shift in transverse electron momentum distribution for strong field ionization. Journal of Physics: Conference Series, 2017, 875, 022020.	0.3	0
24	Metastable noble gas atoms in strong-field ionization experiments. High Power Laser Science and Engineering, 2016, 4, .	2.0	0
25	Using Phase Shifts from High-order Harmonic Generated Radiation to Study Nuclear Dynamics. , 2016, , .		0
26	Transverse electron momentum distribution in tunneling and over the barrier ionization by laser pulses with varying ellipticity. Scientific Reports, 2016, 6, 19002.	1.6	13
27	Spatio-temporal optimization of a laser produced Al-plasma: Generation of highly ionized species. Physics of Plasmas, 2016, 23, .	0.7	5
28	Precise and Accurate Measurements of Strong-Field Photoionization and a Transferable Laser Intensity Calibration Standard. Physical Review Letters, 2016, 117, 053001.	2.9	21
29	Isotope Effect in Tunneling Ionization of Neutral Hydrogen Molecules. Physical Review Letters, 2016, 117, 083003.	2.9	16
30	Coherent control of the dissociation probability of H <sub>2</sub> <sup>+</sup> in two-color fields. Physical Review A, 2016, 93, .	1.0	20
31	Wavelength and intensity effects on the dissociation of H <sub>2</sub> <sup>+</sup> in intense laser fields. Physical Review A, 2016, 94, .	1.0	6
32	The interaction of excited atoms and few-cycle laser pulses. Scientific Reports, 2016, 6, 34101.	1.6	6
33	Coherent control of D <sub>2</sub> <sup>+</sup> /H <sub>2</sub> <sup>+</sup> dissociative ionization by a mid-infrared two-color laser field. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 025601.	0.6	36
34	Percent-level accuracy in measuring strong-field photoionization and laser intensity. , 2016, , .		0
35	Experimental observation of the elusive double-peak structure in R-dependent strong-field ionization rate of H <sub>2</sub> <sup>+</sup> . Scientific Reports, 2015, 5, 13527.	1.6	32
36	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

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37	The interaction of ultrashort laser pulses and exotic atoms. Journal of Physics: Conference Series, 2015, 635, 092066.	0.3	0
38	Transverse electron momentum distribution in tunneling and over the barrier ionization by strong-field laser pulses. Journal of Physics: Conference Series, 2015, 635, 092073.	0.3	1
39	Optimization of Attosecond XUV Pulses. Journal of Physics: Conference Series, 2014, 488, 032009.	0.3	0
40	Effect of nuclear mass on carrier-envelope-phase-controlled electron localization in dissociating molecules. Physical Review A, 2014, 89, .	1.0	26
41	Transition between Mechanisms of Laser-Induced Field-Free Molecular Orientation. Physical Review Letters, 2014, 112, 113005.	2.9	23
42	Thick-lens velocity-map imaging spectrometer with high resolution for high-energy charged particles. Journal of Instrumentation, 2014, 9, P05005-P05005.	0.5	49
43	Benchmarking strong-field ionization with atomic hydrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 204003.	0.6	18
44	Photoionization yield of atomic hydrogen using intense few-cycle pulses. Journal of Physics: Conference Series, 2014, 488, 032045.	0.3	0
45	Carrier-Envelope Phase effect for Dissociation of Molecular Hydrogen. Journal of Physics: Conference Series, 2014, 488, 032027.	0.3	0
46	An extreme ultraviolet interferometer using high order harmonic generation. Journal of Physics: Conference Series, 2014, 488, 012019.	0.3	0
47	Optimized attosecond XUV pulses with zeptosecond timing resolution. , 2013, , .		0
48	Photoionization yield of atomic hydrogen using intense few-cycle pulses. , 2013, , .		0
49	Carrier-envelope phase effects in above-threshold ionization of atomic hydrogen. New Journal of Physics, 2013, 15, 033002.	1.2	16
50	Carrier-envelope-phase-dependent dissociation of hydrogen. New Journal of Physics, 2013, 15, 023034.	1.2	25
51	Measurement of laser intensities approaching $10^{15}$ W/cm <sup>2</sup> with an accuracy of $10^{-2}$	1.0	35
52	A Zeptosecond Phase Interferometer. Journal of Physics: Conference Series, 2012, 388, 032073.	0.3	0
53	Above-threshold ionization in atomic hydrogen using intense, few-cycle laser pulses. Journal of Physics: Conference Series, 2012, 388, 032055.	0.3	0
54	Extreme Ultraviolet Interferometer Using High-Order Harmonic Generation from Successive Sources. Physical Review Letters, 2012, 109, 263902.	2.9	21

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55	A High Order Harmonic Radiation Zeptosecond Phase Interferometer. , 2012, , .		0
56	Charge Resonance Enhanced Ionization of $\text{CO}^2+$ Probed by Laser Coulomb Explosion Imaging. Physical Review Letters, 2011, 107, 063201.	2.9	127
57	Experimental ionization of atomic hydrogen with few-cycle pulses. Optics Letters, 2011, 36, 3660.	1.7	18
58	Following dynamic nuclear wave packets in $\text{N}_2^+$ and $\text{O}_2^+$ following vibrational excitation. Physical Review Letters, 2011, 107, 063201.	1.0	54
59	Vibrationally resolved structure in $\text{N}_2^+$ induced by intense ultrashort laser pulses. Physical Review A, 2011, 83, .	1.0	21
60	Time-resolved Coulomb-explosion imaging of nuclear wave-packet dynamics induced in diatomic molecules by intense few-cycle laser pulses. Physical Review A, 2011, 83, .	1.0	68
61	Momentum spectra of electrons rescattered from rare-gas targets following their extraction by one- and two-color femtosecond laser pulses. Physical Review A, 2011, 83, .	1.0	37
62	Carrier-envelope phase effects in few-cycle ionisation of atomic hydrogen. , 2011, , .		0
63	Enhanced ionization in Di- and tri-atomic molecules observed with Coulomb explosion imaging. , 2011, , .		0
64	Above-threshold ionization in atomic hydrogen using intense few-cycle laser pulses. , 2011, , .		0
65	Tracking nuclear wave-packet dynamics in molecular oxygen ions with few-cycle infrared laser pulses. Physical Review A, 2010, 82, .	1.0	38
66	Dynamic modification of the fragmentation of $\text{CO}^+$ states generated with high-order harmonics. Physical Review A, 2010, 82, .	1.0	11
67	Control of Electron Localization in Deuterium Molecular Ions using an Attosecond Pulse Train and a Many-Cycle Infrared Pulse. Physical Review Letters, 2010, 104, 023001.	2.9	129
68	IR-assisted ionization of helium by attosecond extreme ultraviolet radiation. New Journal of Physics, 2010, 12, 013008.	1.2	77
69	Field-Free Orientation of CO Molecules by Femtosecond Two-Color Laser Fields. Physical Review Letters, 2009, 103, 153002.	2.9	242
70	Ion-Energy Dependence of Asymmetric Dissociation of $\text{D}^2+$ by a Two-Color Laser Field. Physical Review Letters, 2009, 103, 223201.	2.9	148
71	Angular dependence of the strong-field ionization measured in randomly oriented hydrogen molecules. Physical Review A, 2009, 79, .	1.0	28
72	Quantum-beat imaging of the nuclear dynamics in $\text{D}_2^+$ : Dependence of bond softening and bond hardening on laser intensity, wavelength, and pulse duration. Physical Review A, 2009, 79, .	1.0	33

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73	Inelastic rescattering processes in molecules measured with few-cycle laser pulses. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 235601.	0.6	1
74	Probing excited states dynamics in CO cations using few-cycle IR and EUV laser pulses. Journal of Physics: Conference Series, 2009, 194, 032046.	0.3	0
75	Ionization of Small Molecules by Strong Laser Fields. Springer Series in Optical Sciences, 2008, , 185-208.	0.5	1
76	Direct Coulomb-explosion imaging of coherent nuclear dynamics induced by few-cycle laser pulses in light and heavy hydrogen. Physical Review A, 2008, 77, .	1.0	37
77	Wavelength-dependent study of strong-field Coulomb explosion of hydrogen. New Journal of Physics, 2008, 10, 083011.	1.2	21
78	Elusive enhanced ionization structure for $H^2$ in intense ultrashort laser pulses. Physical Review A, 2008, 78, .	1.0	38
79	Large-Angle Electron Diffraction Structure in Laser-Induced Rescattering from Rare Gases. Physical Review Letters, 2008, 100, 143002.	2.9	111
80	Strong-field non-sequential double ionization: wavelength dependence of ion momentum distributions for neon and argon. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 031001.	0.6	33
81	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
82	Wavelength dependence of momentum-space images of low-energy electrons generated by short intense laser pulses at high intensities. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 1955-1964.	0.6	96
83	Momentum-imaging investigations of the dissociation of $D_2^+$ and the isomerization of acetylene to vinylidene by intense short laser pulses. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, S485-S492.	0.6	48
84	Simultaneous real-time tracking of wave packets evolving on two different potential curves in $H_2^+$ and $D_2^+$ . Physical Review A, 2005, 72, .	1.0	81
85	Imaging the time-dependent structure of a molecule as it undergoes dynamics. Physical Review A, 2005, 72, .	1.0	89
86	Laser Coulomb-explosion imaging of small molecules. Physical Review A, 2005, 71, .	1.0	94
87	Momentum imaging of doubly charged ions of Ne and Ar in the sequential ionization region. Physical Review A, 2005, 72, .	1.0	67
88	Shakeup Excitation during Optical Tunnel Ionization. Physical Review Letters, 2005, 94, 033003.	2.9	58
89	Resonant excitation during strong-field dissociative ionization. Physical Review A, 2005, 72, .	1.0	18
90	Effects of orbital symmetries in dissociative ionization of molecules by few-cycle laser pulses. Physical Review A, 2005, 71, .	1.0	100

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91	Two-pulse alignment of molecules. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, L43-L48.	0.6	103
92	Laser-Induced Interference, Focusing, and Diffraction of Rescattering Molecular Photoelectrons. Physical Review Letters, 2004, 93, 223003.	2.9	102
93	Direct imaging of rotational wave-packet dynamics of diatomic molecules. Physical Review A, 2003, 68, .	1.0	260
94	Time-Resolved Double Ionization with Few Cycle Laser Pulses. Physical Review Letters, 2003, 91, 093002.	2.9	103
95	Alignment-Dependent Strong Field Ionization of Molecules. Physical Review Letters, 2003, 90, 233003.	2.9	445
96	An investigation of the frontier orbital electron density of the antibacterial agent urotropine by electron momentum spectroscopy. Chemical Physics, 2001, 263, 195-201.	0.9	16
97	An investigation of the HOMO frontier orbital electron density distributions of NH <sub>3</sub> , the methylamines and NF <sub>3</sub> using DFT and electron momentum spectroscopy. Chemical Physics, 2001, 269, 101-106.	0.9	8
98	Imaging of orbital electron densities by electron momentum spectroscopy – a chemical interpretation of the binary (e,2e) reaction. Chemical Physics, 2001, 270, 13-30.	0.9	70
99	Electron momentum spectroscopy study of amantadine: binding energy spectra and valence orbital electron density distributions. Chemical Physics, 2000, 261, 289-300.	0.9	19
100	Valence shell orbital imaging in adamantane by electron momentum spectroscopy. Chemical Physics, 2000, 253, 41-50.	0.9	29
101	A Method for Separation of Homogeneous and Inhomogeneous Components of Spectral Broadening of Rigid Systems. Journal of Physical Chemistry A, 1997, 101, 813-816.	1.1	7
102	Energy transfer to a proton-transfer fluorescence probe: Tryptophan to a flavonol in human serum albumin. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 12959-12963.	3.3	172