

# Xiaolong Zhu

## List of Publications by Year in Descending Order

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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.

109  
papers

543  
citations

14  
h-index

18  
g-index

119  
ext. papers

745  
ext. citations

2  
avg, IF

2.94  
L-index

#	Paper	IF	Citations
109	Charge-exchange X-Ray Signature in Laboratory Outflow Interaction with Neutrals. <i>Astrophysical Journal</i> , <b>2022</b> , 925, 150	4.7	
108	Prompt and delayed dissociation of N <sub>2</sub> O <sup>2+</sup> induced by highly-charged-ion collisions. <i>Physical Review A</i> , <b>2021</b> , 103,	2.6	1
107	Measurement of n-resolved State-selective Charge Exchange in Ne(8,9) <sup>+</sup> Collision with He and H <sub>2</sub> . <i>Astrophysical Journal, Supplement Series</i> , <b>2021</b> , 253, 13	8	2
106	Delayed fragmentation of propyne and allene in collisions with highly charged ions. <i>Physical Review A</i> , <b>2020</b> , 102,	2.6	2
105	Three-body fragmentation dynamics of CH <sub>2</sub> CCH <sub>2</sub> <sup>3+</sup> investigated by 50-keV/u Ne <sup>8+</sup> impact. <i>Physical Review A</i> , <b>2020</b> , 101,	2.6	2
104	Heavy N ion transfer in doubly charged NAr van der Waals cluster. <i>Nature Communications</i> , <b>2020</b> , 11, 2987	17.4	2
103	Electron-ion recombination rate coefficients of carbon-like Ar <sup>12+</sup> . <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2020</b> , 53, 085004	1.3	1
102	Breakdown of the Coulomb-explosion imaging technique induced by the ultrafast rotation of fragments. <i>Physical Review A</i> , <b>2020</b> , 101,	2.6	6
101	Four-body Coulomb explosion of acetylene in collision with highly charged ions. <i>Physical Review A</i> , <b>2020</b> , 101,	2.6	3
100	Absolute rate coefficients for dielectronic recombination of Na-like Kr <sup>25+</sup> . <i>Physical Review A</i> , <b>2020</b> , 102,	2.6	1
99	State-selective single-electron capture in 30-keV N <sub>3</sub> <sup>4+</sup> He collisions. <i>X-Ray Spectrometry</i> , <b>2020</b> , 49, 85-89	0.9	
98	Optical detection system for laser cooling and precision laser spectroscopy of relativistic highly charged ions at the CSRe. <i>X-Ray Spectrometry</i> , <b>2020</b> , 49, 138-142	0.9	0
97	Dielectronic recombination at low energy range with Boron-like Ar <sup>13+</sup> at the CSRm. <i>X-Ray Spectrometry</i> , <b>2020</b> , 49, 155-159	0.9	2
96	Two-body fragmentation dynamics of N <sub>2</sub> O <sup>q+</sup> (q=2,3) induced by electron-capture collisions with 5.7keV/uXe <sup>15+</sup> . <i>Physical Review A</i> , <b>2019</b> , 99,	2.6	4
95	Laser cooling and precision laser spectroscopy of highly charged ions at the storage ring CSRe and the future HIAF. <i>Hyperfine Interactions</i> , <b>2019</b> , 240, 1	0.8	3
94	Two-body dissociation of CH isomers investigated by 50 keV/u Ne impact. <i>Journal of Chemical Physics</i> , <b>2019</b> , 150, 144311	3.9	4
93	A beam profile monitor for picoampere low-energy ion beams. <i>Review of Scientific Instruments</i> , <b>2019</b> , 90, 076107	1.7	0

92	A compact, flexible low energy experimental platform of highly charged ions for atomic physics experiments. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2019</b> , 460, 224-229	1.2	3
91	Dielectronic and Trielectronic Recombination Rate Coefficients of Be-like Ar 14+. <i>Astrophysical Journal, Supplement Series</i> , <b>2018</b> , 235, 2	8	14
90	Probing scattering phases via two-center interferences in collisions of He <sup>2+</sup> on CO. <i>Physical Review A</i> , <b>2018</b> , 97,	2.6	5
89	Interatomic relaxation processes induced in neon dimers by electron-impact ionization. <i>Physical Review A</i> , <b>2018</b> , 97,	2.6	10
88	Time-resolved photoion imaging spectroscopy: Determining energy distribution in multiphoton absorption experiments. <i>Journal of Chemical Physics</i> , <b>2018</b> , 148, 134303	3.9	4
87	Observation of the indirect (e, 3e) process of CO. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2018</b> , 51, 185203	1.3	
86	Electron Ion Recombination Rate Coefficients of Be-like 40Ca <sup>16+</sup> . <i>Astrophysical Journal</i> , <b>2018</b> , 862, 134	4.7	7
85	Dynamics of C <sub>2</sub> H <sub>2</sub> <sup>3+</sup> -H <sup>++</sup> H <sup>++</sup> C <sub>2</sub> <sup>+</sup> investigated by 50-keV/u Ne <sup>8+</sup> impact. <i>Physical Review A</i> , <b>2018</b> , 97,	2.6	13
84	Regime change and transitional regime behavior of C <sub>60</sub> molecular beams. <i>Chemical Physics Letters</i> , <b>2018</b> , 691, 110-113	2.5	6
83	Dissociation of [HCCH] to H and C: a benchmark reaction involving H migration, H-H combination, and C-H bond cleavage. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 27725-27729	3.6	14
82	Damaging Intermolecular Energy and Proton Transfer Processes in Alpha-Particle-Irradiated Hydrogen-Bonded Systems. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 17023-17027	16.4	18
81	Damaging Intermolecular Energy and Proton Transfer Processes in Alpha-Particle-Irradiated Hydrogen-Bonded Systems. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 17269-17273	3.6	1
80	Longitudinal modulation of electron-cooled 12C <sup>6+</sup> and 16O <sup>8+</sup> ion beams at heavy ion storage ring CSRe. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2018</b> , 908, 244-249	1.2	2
79	Orientation effect in Ar dimer fragmentation by highly charged ion impact. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2018</b> , 51, 155204	1.3	1
78	Dielectronic recombination experiments at the storage rings: From the present CSR to the future HIAF. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2017</b> , 408, 135-139	1.2	6
77	Fully differential study of few-body dynamics in multi-electron atomic fragmentation processes. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2017</b> , 50, 10LT01	1.3	1
76	HIAF: New opportunities for atomic physics with highly charged heavy ions. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2017</b> , 408, 169-173	1.2	24
75	Probing the geometry of Ar <sub>2</sub> N <sub>2</sub> cluster by 1 MeV Ne <sup>8+</sup> ions. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2017</b> , 408, 42-45	1.2	3

74	Frontiers of atomic physics with highly charged heavy ions at HIAF. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 875, 092021	0.3	
73	Single-electron capture in 3-keV/u Ar <sup>8+</sup> -He collisions. <i>Physical Review A</i> , <b>2017</b> , 95,	2.6	4
72	State-selective electron capture in He <sup>+</sup> + He collisions at intermediate energies. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 875, 092019	0.3	0
71	Dielectronic recombination of Be-like argon at the CSRm. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 875, 012020	0.3	1
70	Direct evidence of Interatomic Coulombic Decay in electron impact ionization of Ne dimer. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 875, 062033	0.3	
69	Investigation of fragmentation dynamics of nitrogen dimers by collisions with highly charged ions. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 875, 102037	0.3	
68	Measurement of the lifetime and the proportion of <sup>12</sup> C <sup>3+</sup> ions in stored relativistic ion beams as a preparation for laser cooling experiments at the CSRe. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2017</b> , 408, 280-284	1.2	5
67	State-selective electron capture in 30- and 100-keV He <sup>++</sup> -He collisions. <i>Physical Review A</i> , <b>2017</b> , 95,	2.6	11
66	Two-electron transfer and ionization mechanism in 80-keV/u Ne <sup>8+</sup> on He collisions. <i>Physical Review A</i> , <b>2016</b> , 93,	2.6	3
65	Observation of two sequential pathways of (CO <sub>2</sub> ) <sup>3+</sup> dissociation by heavy-ion impact. <i>Physical Review A</i> , <b>2016</b> , 94,	2.6	15
64	Electron-capture-to-continuum cusp in U <sup>88++</sup> -N <sub>2</sub> collisions. <i>Physical Review A</i> , <b>2015</b> , 91,	2.6	16
63	Forward-angle electron spectroscopy in heavy-ion atom collisions studied at the ESR. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 635, 022005	0.3	
62	Kinematically complete experiment for ionization-excitation of helium. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 635, 052079	0.3	
61	Possible evidence for a liquid-gas phase transition in C <sub>60</sub> systems. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 635, 102013	0.3	
60	Origin of the sequential dissociation of (CO <sub>2</sub> ) <sup>3+</sup> by heavy ion impact. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 635, 032100	0.3	
59	The nucleus-nucleus scattering in transfer ionization of helium by He <sup>2+</sup> -impact. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 635, 022077	0.3	
58	Experimental investigation of state selective single-electron capture in 120 keV Ar <sup>8+</sup> - He collisions. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 635, 022079	0.3	
57	Influence of Ambient Gas on Laser-Induced Breakdown Spectroscopy of Uranium Metal. <i>Plasma Science and Technology</i> , <b>2015</b> , 17, 971-974	1.5	22

56	RF-bunching of relativistic $^{12}\text{C}^{3+}$ ion beam for laser cooling experiment at the CSRe. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 583, 012045	0.3	1
55	The fragmentation of neon dimer induced by low energy $\text{O}^{6+}$ ions. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 635, 032102	0.3	
54	Progress of laser cooling of $^{12}\text{C}^{3+}$ ions at the CSRe. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 635, 022080	0.3	
53	Projectile charge state effects on electron emission in transfer ionization processes. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2015</b> , 48, 144021	1.3	1
52	Study of dielectronic recombination at the CSRm using lithium-like $\text{Ar}^{15+}$ ions. <i>Physica Scripta</i> , <b>2015</b> , T166, 014023	2.6	12
51	Measurement of the ratio of $\text{C}^{3+}$ and $\text{O}^{4+}$ ions produced by ECRIS to prepare a laser cooling experiment at storage rings. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2014</b> , 764, 232-235	1.2	2
50	Development of a single-particle detector for the dielectronic recombination experiment on HIRFL-CSRm. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2014</b> , 735, 552-556	1.2	1
49	Dielectronic recombination experiment of P-like Tin on HIRFL-CSRm at Lanzhou. <i>Journal of Physics: Conference Series</i> , <b>2014</b> , 488, 012055	0.3	1
48	The target effect in transfer ionization in proton-helium and neon collisions at intermediate energies. <i>Journal of Physics: Conference Series</i> , <b>2014</b> , 488, 082017	0.3	
47	Analysis of ionic fragment size distribution in collision of nanosecond laser with the $\text{C}_{60}$ molecule. <i>Journal of Physics: Conference Series</i> , <b>2014</b> , 488, 022043	0.3	
46	Dynamics of transfer ionization process in p-He collisions at intermediate energies. <i>Journal of Physics: Conference Series</i> , <b>2014</b> , 488, 082018	0.3	
45	Mutual ionization in atomic collisions near the electronic threshold. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2014</b> , 47, 105202	1.3	
44	Dissociation mechanisms of the Ar trimer induced by a third atom in high-energy electron-impact ionization. <i>Physical Review A</i> , <b>2014</b> , 89,	2.6	8
43	Radiative-electron-capture-to-continuum cusp in $\text{U}^{88++}\text{N}_2$ collisions and the high-energy endpoint of electron-nucleus bremsstrahlung. <i>Physical Review A</i> , <b>2014</b> , 90,	2.6	21
42	Electron-loss-to-continuum cusp in $\text{U}^{88++}\text{N}_2$ collisions. <i>Physical Review A</i> , <b>2014</b> , 90,	2.6	16
41	New insight into power-law behavior of fragment size distributions in the $\text{C}_n$ multifragmentation regime. <i>Journal of Chemical Physics</i> , <b>2014</b> , 141, 054307	3.9	2
40	Longitudinal dynamics of RF-bunched and electron-cooled ion beam at the CSRe. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2014</b> , 736, 75-80	1.2	10
39	Picturing electron capture to the continuum in the transfer ionization of intermediate-energy $\text{He}^{2+}$ collisions with argon. <i>Physical Review A</i> , <b>2013</b> , 87,	2.6	3

38	YAP:Ce and CsI(Tl) detectors for dielectronic recombination experiment at the CSRm. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2013</b> , 317, 731-733	1.2	15
37	Preparations for laser cooling of relativistic heavy-ion beams at the CSRe. <i>Physica Scripta</i> , <b>2013</b> , T156, 014090	2.6	2
36	Experimental evidence of the target excitation in transfer ionization of He <sup>2+</sup> on argon collisions. <i>Physica Scripta</i> , <b>2013</b> , T156, 014030	2.6	1
35	Multistage transformation and charge effect during the fragmentation phase transition in atomic clusters. <i>Physical Review A</i> , <b>2013</b> , 87,	2.6	5
34	Observation of interatomic Coulombic decay and electron-transfer-mediated decay in high-energy electron-impact ionization of Ar <sub>2</sub> . <i>Physical Review A</i> , <b>2013</b> , 88,	2.6	26
33	Angular- and state-selective differential cross sections for single-electron capture in p-He collisions at intermediate energies. <i>Physical Review A</i> , <b>2012</b> , 86,	2.6	8
32	(e,2e) processes on atomic targets (Ne, Ar) and molecular targets (CH <sub>4</sub> , N <sub>2</sub> , CO <sub>2</sub> ): Role of electron-nucleus scattering. <i>Physical Review A</i> , <b>2012</b> , 86,	2.6	5
31	Observation of atomic-size Fraunhofer-type diffraction for single electron capture in He <sup>2++</sup> He collision. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2012</b> , 45, 025202	1.3	6
30	Progress of dielectronic recombination experiment at CSRm. <i>Journal of Physics: Conference Series</i> , <b>2012</b> , 388, 062032	0.3	
29	General overview of the strong projectile-target-core interaction in Ne (e, 2e) reaction. <i>Journal of Physics: Conference Series</i> , <b>2012</b> , 388, 042045	0.3	
28	Observation of atomic-size Fraunhofer-type diffraction for single electron capture in He <sup>2++</sup> He collision. <i>Journal of Physics: Conference Series</i> , <b>2012</b> , 388, 082053	0.3	
27	Analysis of momentum and energy resolutions of the reaction microscopes. <i>Journal of Physics: Conference Series</i> , <b>2012</b> , 388, 142008	0.3	
26	Image of electron emission in He <sup>2+</sup> -He collisions at intermediate energies. <i>Journal of Physics: Conference Series</i> , <b>2012</b> , 388, 082022	0.3	
25	State-selective electron capture by O <sup>3+</sup> ions on He and H <sub>2</sub> . <i>Journal of Physics: Conference Series</i> , <b>2012</b> , 388, 102014	0.3	
24	Measuring phase transition temperature of fragmented C <sub>60</sub> . <i>Journal of Physics: Conference Series</i> , <b>2012</b> , 388, 022110	0.3	
23	Experimental investigation of single capture with single ionization in 30keV/u He <sup>2+</sup> on argon collisions. <i>Journal of Physics: Conference Series</i> , <b>2012</b> , 388, 082006	0.3	
22	Electron emission from single-electron capture with simultaneous single-ionization reactions in 30-keV/u He <sup>2+</sup> -on-argon collisions. <i>Physical Review A</i> , <b>2011</b> , 83,	2.6	44
21	Determining excitation temperature of fragmented C <sub>60</sub> via momentum distributions of fragments. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 3328-33	3.6	9

20	Signatures of the projectile electron-target core elastic scattering in Ar (e, 2e) reactions at low and intermediate impact energies. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2011</b> , 44, 055202	1.3	7
19	Evidence of strong projectile-target-core interaction in single ionization of neon by electron impact. <i>Physical Review A</i> , <b>2010</b> , 82,	2.6	8
18	News from the CSR storage ring. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 194, 152004	0.3	
17	High negative ion production yield in 30 keV F <sup>2++</sup> adenine (C <sub>5</sub> H <sub>5</sub> N <sub>5</sub> ) collisions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2009</b> , 42, 075204	1.3	5
16	Kinetic energies of . <i>Chemical Physics Letters</i> , <b>2009</b> , 470, 215-218	2.5	9
15	Electron emitted in transfer ionization in He <sup>2+</sup> on helium collisions. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 185, 012007	0.3	
14	Imaging the electrons from transfer ionization collisions. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 194, 082034	0.3	
13	Recent progresses on atomic physics with highly charged ions in Lanzhou. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 185, 012024	0.3	
12	State-selective single electron capture studied for C <sup>4+</sup> ions on H <sub>2</sub> at 40 keV. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 194, 102020	0.3	
11	A progress report of 320 kV multi-discipline research platform for highly charged ions. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 163, 012104	0.3	21
10	Differential experimental investigation of electron capture for He <sup>2+</sup> on Helium at low energy. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 163, 012064	0.3	1
9	Two-center structure effects in collision between H <sub>2</sub> <sup>+</sup> and He. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 194, 102029	0.3	
8	ATOMIC PHYSICS RESEARCHES AT COOLER STORAGE RING IN LANZHOU. <i>International Journal of Modern Physics E</i> , <b>2009</b> , 18, 373-380	0.7	5
7	Investigation of ion-atom collision dynamics through imaging techniques <b>2008</b> , 51, 755-764		20
6	The many-particle scattering system He <sup>++</sup> on He: Experiment and a complete unified description. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2007</b> , 369, 85-89	2.3	5
5	Differential investigations of charge transfer processes in low energy ion-atom/molecule collisions. <i>Journal of Physics: Conference Series</i> , <b>2007</b> , 88, 012019	0.3	2
4	Properties and applications of cold supersonic gas jet <b>2006</b> , 49, 709-715		3
3	Measurements of bremsstrahlung spectra of Lanzhou ECR Ion Source No. 3 (LECR3). <i>Review of Scientific Instruments</i> , <b>2006</b> , 77, 03A312	1.7	11

- 2 Electron transfer and multi-ionization in slow collisions of C60 with highly charged ions. *Nuclear Instruments & Methods in Physics Research B*, **2005**, 235, 378-381 1.2
- 1 Dissociation and fragmentation of N2 molecules by slow highly charged ions. *Nuclear Instruments & Methods in Physics Research B*, **2005**, 235, 387-391 1.2 1