

Theo J M Zouros

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111
papers

2,310
citations

23
h-index

45
g-index

124
ext. papers

2,490
ext. citations

2.1
avg, IF

4.07
L-index

#	Paper	IF	Citations
111	Interaction of slow multicharged ions with solid surfaces. <i>Surface Science Reports</i> , 1997 , 27, 113-239	12.9	335
110	Instabilities of massive scalar perturbations of a rotating black hole. <i>Annals of Physics</i> , 1979 , 118, 139-155.	5.5	205
109	Binary-encounter electrons observed at 0 degrees in collisions of 1-2-MeV/amu H+, C6+, N7+, O8+, and F9+ ions with H2 and He targets. <i>Physical Review A</i> , 1990 , 41, 4816-4823	2.6	176
108	Few-photon multiple ionization of ne and ar by strong free-electron-laser pulses. <i>Physical Review Letters</i> , 2007 , 98, 203001	7.4	131
107	Projectile 1s-->2p excitation due to electron-electron interaction in collisions of O5+ and F6+ ions with H2 and He targets. <i>Physical Review Letters</i> , 1989 , 62, 2261-2264	7.4	78
106	Anomalous q dependence of O' binary encounter electron production in energetic collisions of Fq+(q=3-9) with He and H2 targets. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1990 , 23, L213-L218	1.3	77
105	Selective production of Li-, Be-, and B-like K vacancy states in fast Ne projectiles studied by zero-degree Auger spectroscopy. <i>Physical Review A</i> , 1985 , 31, 684-691	2.6	70
104	Double Ionization of Helium by Fast Electron Impact. <i>Physical Review Letters</i> , 1999 , 82, 2496-2499	7.4	67
103	Investigating two-photon double ionization of D2 by XUV-pump-XUV-probe experiments. <i>Physical Review A</i> , 2010 , 81,	2.6	54
102	Transfer excitation in He++He collisions studied by 0 degrees electron spectroscopy. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1985 , 18, 4581-4587		49
101	K-shell ionization of O4+ and C2+ ions in fast collisions with H2 and He gas targets. <i>Physical Review A</i> , 1992 , 46, 1374-1387	2.6	45
100	Electron rearrangement dynamics in dissociating I(2)^(n+) molecules accessed by extreme ultraviolet pump-probe experiments. <i>Physical Review Letters</i> , 2014 , 113, 073001	7.4	42
99	Controlling two-electron threshold dynamics in double photoionization of lithium by initial-state preparation. <i>Physical Review Letters</i> , 2009 , 103, 103008	7.4	41
98	The hemispherical deflector analyser revisited. I. Motion in the ideal 1/r potential, generalized entry conditions, Kepler orbits and spectrometer basic equation. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2002 , 125, 221-248	1.7	40
97	Tracing direct and sequential two-photon double ionization of D2 in femtosecond extreme-ultraviolet laser pulses. <i>Physical Review A</i> , 2010 , 81,	2.6	35
96	Electron capture and target ionization in collisions of bare projectile ions incident on helium. <i>Physical Review A</i> , 1992 , 45, 2922-2928	2.6	33
95	The hemispherical deflector analyser revisited: II. Electron-optical properties. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2008 , 163, 28-39	1.7	32

94	Improving the energy resolution of a hemispherical spectrograph using a paracentric entry at a non-zero potential. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2000 , 440, 462-465	1.2	32
93	State-selective observation of resonant transfer excitation in collisions of F6+ with He and H2 targets. <i>Physical Review A</i> , 1989 , 40, 6246-6250	2.6	27
92	Effects of alignment and interference in resonant transfer and excitation for F6+ and O5+ collisions with H2 in 0 degrees Auger measurements. <i>Physical Review A</i> , 1990 , 42, 678-681	2.6	26
91	Production of (2s2)1S, (2p2)1D, and (2s2p)1P states by double electron capture in 150-500-keV 3He. <i>Physical Review A</i> , 1987 , 35, 1963-1966	2.6	26
90	Elastic resonant and nonresonant differential scattering of quasifree electrons from B4+(1s) and B3+(1s2) ions. <i>Physical Review A</i> , 2004 , 69,	2.6	25
89	KLL resonant transfer excitation to F6+(1s2l2l') intermediate states. <i>Physical Review A</i> , 1991 , 44, 1636-1643	2.6	24
88	Electron emission in collisions of slow, highly charged ions with gases and solid surfaces. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1991 , 56-57, 219-222	1.2	23
87	Angular distribution of delta electrons emitted in collisions of 1.0-MeV/u Fq+ (q=4,6,8,9) with molecular hydrogen. <i>Physical Review A</i> , 1994 , 50, 1328-1334	2.6	21
86	Selective enhancement of 1s2s2pPJ4 metastable states populated by cascades in single-electron transfer collisions of F7+(1s2l1s2sS3) ions with He and H2 targets. <i>Physical Review A</i> , 2008 , 77,	2.6	20
85	A zero-degree tandem electron spectrometer and rydberg analyzer for projectile electron studies in ion-atom collisions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1989 , 40-41, 1229-1232	1.2	20
84	Fringing field optimization of hemispherical deflector analyzers using BEM and FDM. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2010 , 177, 42-51	1.7	18
83	Optimal energy resolution of a hemispherical analyzer with virtual entry. <i>Applied Physics Letters</i> , 2005 , 86, 094105	3.4	18
82	Energy dependence of the metastable fraction in B3+(1s21S,1s2s3S) beams produced in collisions with thin-foil and gas targets. <i>Physical Review A</i> , 2001 , 64,	2.6	17
81	Investigation of the accuracy of ion optics simulations using Kepler orbits in a spherical capacitor. <i>International Journal of Mass Spectrometry</i> , 2007 , 261, 115-133	1.9	16
80	Novel and traditional fringing field correction schemes for the hemispherical analyser: comparison of first-order focusing and energy resolution. <i>Measurement Science and Technology</i> , 2007 , 18, 1853-1858 ²		16
79	Large-angle elastic resonant and nonresonant scattering of electrons from B3+(1s2) and B4+(1s) ions: Comparison of experiment and theory. <i>Physical Review A</i> , 2003 , 68,	2.6	16
78	Technique for the determination of the 1s2s3S metastable fraction in two-electron ion beams. <i>Physical Review A</i> , 2002 , 65,	2.6	15
77	Hemispherical Analyser with 2-D PSD for Zero-degree Auger Projectile Spectroscopy. <i>Physica Scripta</i> , 1999 , T80, 529	2.6	15

76	0 degrees binary encounter electron production in 30-MeV Oq++H2, He, O2, Ne, and Ar collisions. <i>Physical Review A</i> , 1996 , 53, 2272-2280	2.6	15
75	Relationship between the Born and impulse approximations for the antiscreening process. <i>Physical Review A</i> , 1994 , 50, 3186-3191	2.6	15
74	Projectile-charge-state dependence of 0 degrees binary-encounter electron production in 30-MeV Oq++O2 collisions. <i>Physical Review A</i> , 1994 , 49, R3155-R3158	2.6	15
73	Absolute cross sections and decay rates for the triply excited B2+(2s2p22D) resonance in electron-metastable-ion collisions. <i>Physical Review A</i> , 2002 , 65,	2.6	14
72	High resolution RTE measurements at 0° using a hemispherical analyser with lens and 2-D PSD. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1999 , 154, 276-280	1.2	14
71	Charge-state dependence of binary-encounter-electron cross sections and peak energies. <i>Physical Review A</i> , 1993 , 48, 4421-4428	2.6	14
70	EUV-photon-induced multiple ionization and fragmentation dynamics: from atoms to molecules. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2009 , 42, 134012	1.3	13
69	Fraction of metastable 1s2s3S ions in fast He-like beams (Z=59) produced in collisions with carbon foils. <i>Physical Review A</i> , 2002 , 65,	2.6	13
68	High resolution studies of electron capture and excitation by 0° projectile electron spectroscopy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1989 , 40-41, 17-20	1.2	13
67	Investigation of the impact-parameter dependence of electrons emitted in 30-, 100-, 350-keV H+ and 100-keV 3He. <i>Physical Review A</i> , 1987 , 35, 598-606	2.6	13
66	One- and two-electron processes in collisions of heavy ions with H2 and He. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1987 , 262, 69-77	1.2	13
65	Atomic Physics with Accelerators: Projectile Electron Spectroscopy (APAPES). <i>Journal of Physics: Conference Series</i> , 2015 , 583, 012014	0.3	12
64	Theoretical investigation of the energy resolution of an ideal hemispherical deflector analyzer and its dependence on the distance from the focal plane. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2006 , 152, 67-77	1.7	12
63	Impulse approximation treatment of electron-electron excitation and ionization in energetic ion-atom collisions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1993 , 79, 166-169	1.2	12
62	State-selective observation of resonant and non-resonant transfer-excitation in 50-500 keV3He++H2collisions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1988 , 21, L671-L676	1.3	12
61	Determination of the solid angle and response function of a hemispherical spectrograph with injection lens for Auger electrons emitted from long lived projectile states. <i>Review of Scientific Instruments</i> , 2015 , 86, 043111	1.7	11
60	Experimental energy resolution of a paracentric hemispherical deflector analyzer for different entry positions and bias. <i>Review of Scientific Instruments</i> , 2013 , 84, 043105	1.7	11
59	Using the fringing fields of a hemispherical spectrograph to improve its energy resolution. <i>Measurement Science and Technology</i> , 2006 , 17, N81-N86	2	11

58	High resolution studies of two-electron processes observed in energetic ion-atom collisions via zero-degree Auger spectroscopy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1988 , 31, 349-358 ^{1.2}	1.2	10
57	Electron capture and excitation studied by state-resolved KLL Auger measurement in 0.25 MeV/u F7+(1s21S, 1s2s3S) + H2/He collisions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1991 , 56-57, 99-103	1.2	9
56	Differential electron scattering from positive ions measured by zero-degree ion-atom spectroscopy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003 , 205, 508-516	1.2	8
55	Isoelectronic study of triply excited Li-like states. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2003 , 36, L341-L348	1.3	7
54	Resonant Transfer and Excitation Associated with Auger Electron Emission. <i>NATO ASI Series Series B: Physics</i> , 1992 , 271-300		7
53	Determination of the $1s2\ell\ell'$ state production ratios $\frac{\sigma^4P^0}{\sigma^2P}$, $\frac{\sigma^2D}{\sigma^2P}$ and $\frac{\sigma^2P_+}{\sigma^2P_-}$ from fast ($1s^2, 1s2s, \ell^3S$) mixed-state He-like ion beams in collisions with H2 targets. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016 , 49, 235302	1.3	6
52	Position, Energy, and Transit Time Distributions in a Hemispherical Deflector Analyzer with Position Sensitive Detector. <i>Journal of Spectroscopy</i> , 2015 , 2015, 1-20	1.5	6
51	Differential multi-electron emission induced by swift highly charged gold ions penetrating carbon foils. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 258, 91-95	1.2	6
50	Forward-backward asymmetry in the inelastic scattering of electrons from highly charged ions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1999 , 32, 4425-4435	1.3	6
49	State-selective nonresonant transfer excitation in 50-400-keV 3He++H2 and He collisions. <i>Physical Review A</i> , 1991 , 43, 1621-1624	2.6	6
48	The emission anisotropy of isolated K MO transitions in 40 MeV Ni+Ni collisions. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1984 , 17, L289-L294		6
47	Production of projectile $1s2s2p4P$ states by transfer-loss in collisions of O5+ and F6+ ions with H2 and He targets. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2006 , 39, L45-L52	1.3	5
46	Optimization of the energy resolution of an ideal ESCA-type hemispherical analyzer. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005 , 235, 535-539	1.2	5
45	Identification of very low energy projectile autoionizing transitions in high velocity collisions using zero-degree Auger electron spectroscopy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995 , 99, 27-29	1.2	5
44	RTE with Li vapor target. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1989 , 40-41, 158-160	1.2	5
43	Evidence for the non-statistical population of the $1s2s2p\ 4P$ metastable state by electron capture in 4 MeV collisions of B3+(1s2s 3S) with H2 targets. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2016 , 369, 83-86	1.2	4
42	Non-statistical population of $1s2s2p4P$ states by charge transfer into multiply charged ions. <i>Journal of Physics: Conference Series</i> , 2009 , 163, 012004	0.3	4
41	Comparison of two experimental techniques for the determination of the $1s2s\ 3S$ metastable beam fraction in energetic B3+ ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003 , 205, 517-521	1.2	4

40	Experimental observation and theoretical calculations of triply excited 2s2p22Se, 2,4Pe, 2De and 2p32Po, 2Do states of fluorine. <i>Physical Review A</i> , 2003 , 67,	2.6	4
39	Theoretical investigation of transfer-loss process in 0.2 MeV/u collisions of O5+ ions with H2 and He targets. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2001 , 114-116, 191-197	1.7	4
38	Triple electron capture in fast 0.5-1.1 MeV/u C6+ on Ar collisions. <i>Physical Review A</i> , 2002 , 66,	2.6	4
37	Effect of electron-electron interaction on projectile K-shell ionization in energetic ion-atom collisions studied by 0 Auger electron spectroscopy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1991 , 56-57, 107-110	1.2	4
36	The voltage optimization of a four-element lens used on a hemispherical spectrograph with virtual entry for highest energy resolution. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2016 , 211, 19-31	1.7	3
35	. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1996 , 29, 1247-1262	1.3	3
34	Two-electron excitation to Rydberg levels in fast I6+ on hydrogen collisions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995 , 98, 324-327	1.2	3
33	Studies of high charge state Rydberg ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1989 , 40-41, 187-189	1.2	3
32	A coincidence study of vacancy sharing between quasi-molecular orbitals. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1985 , 18, L115-L119		3
31	The Tandem Accelerator Laboratory of NCSR Demokritos current status and perspectives. <i>European Physical Journal Plus</i> , 2021 , 136, 1	3.1	3
30	Mixed-State Ionic Beams: An Effective Tool for Collision Dynamics Investigations. <i>Atoms</i> , 2018 , 6, 66	2.1	3
29	Pauli Shielding and Breakdown of Spin Statistics in Multielectron Multi-Open-Shell Dynamical Atomic Systems. <i>Physical Review Letters</i> , 2020 , 124, 113401	7.4	2
28	Experimental determination of the effective solid angle of long-lived projectile states in zero-degree Auger projectile spectroscopy. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2018 , 222, 31-39	1.7	2
27	Comparison of fringing field correction schemes for the 180° hemispherical deflector analyzer. <i>Physics Procedia</i> , 2008 , 1, 473-477		2
26	Investigation of triply excited states of Li-like ions in fast ion-atom collisions by zero-degree Auger projectile electron spectroscopy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005 , 233, 161-171	1.2	2
25	Search for inelastic electrons scattered off ions in energetic ion-atom collisions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995 , 98, 371-374	1.2	2
24	Production of 1s2s2p4P states by transfer-loss cascades in O5+ collisions with he and H2 targets. <i>Brazilian Journal of Physics</i> , 2006 , 36, 505-508	1.2	2
23	Transit time spreads in biased paracentric hemispherical deflection analyzers. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2016 , 369, 95-97	1.2	1

22	Separation and solid angle correction of the metastable 1s2s2p4P Auger yield produced in ion-atom collisions using the biased gas cell technique: A tool for the determination of the population mechanisms. <i>Journal of Physics: Conference Series</i> , 2015 , 635, 052082	0.3	1
21	Investigation of the dependence of the energy resolution of a hemispherical deflection analyzer on the distance of the position sensitive detector from the focal plane. <i>Journal of Physics: Conference Series</i> , 2015 , 635, 052063	0.3	1
20	Zero-degree binary encounter electrons in fast collisions of highly charged F and O ions with H2 targets. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1993 , 79, 11-14	1.2	1
19	Simultaneous electron capture and target ionization in bare-fluorine-helium collisions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1989 , 40-41, 36-39	1.2	1
18	X-ray spectroscopy of electronic quasimolecules. I. Isolation and study of particular K molecular-orbital transitions. <i>Physical Review A</i> , 1987 , 36, 1669-1682	2.6	1
17	Population of the states in collisions of mixed-state (1s21S,1s2s3S) B3+ and C4+ ion beams with He and H2 targets. <i>X-Ray Spectrometry</i> , 2020 , 49, 54-59	0.9	1
16	Modelling SIMION accuracy for hemispherical deflector analyzers using a spherical capacitor. <i>Physics Procedia</i> , 2008 , 1, 461-466		0
15	First-order focusing and energy resolution optimization of a biased paracentric hemispherical spectrograph. <i>Physics Procedia</i> , 2008 , 1, 467-472		0
14	Theory of projectile ionization by molecular hydrogen targets. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1993 , 79, 124-127	1.2	0
13	Radiative Cascade Repopulation of 1s2s2p 4P States Formed by Single Electron Capture in 200 MeV Collisions of C4+ (1s2s 3S) with He. <i>Atoms</i> , 2020 , 8, 61	2.1	0
12	Variable Entry Biased Paracentric Hemispherical Deflector: Experimental results on energy resolution for different entry positions. <i>Journal of Physics: Conference Series</i> , 2014 , 488, 142002	0.3	
11	Effective solid angle correction factors for long-lived Auger states populated in low-Z ion collisions with gas targets. <i>Journal of Physics: Conference Series</i> , 2017 , 875, 092007	0.3	
10	Energy levels, transition rates and lifetimes for Li-like ions with Z=10 in the 1s2s(3S)3P states. <i>Journal of Physics: Conference Series</i> , 2015 , 635, 052060	0.3	
9	Use of Gas and Foil strippers for the production of He-like ionic beams in both pure ground state (1s2) and mixed states (1s2, 1s2s) for zero-degree Auger Projectile Electron Spectroscopy. <i>Journal of Physics: Conference Series</i> , 2015 , 635, 052062	0.3	
8	Optimal operation of a 4-element injection lens in a hemispherical spectrograph: FDM/BEM simulation and experimental demonstration. <i>Journal of Physics: Conference Series</i> , 2015 , 635, 052083	0.3	
7	Wave-function effects in the formation of 2S, 2P and 2P+ states in collisions of lithium-like O5+ ions with He target. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003 , 205, 464-468	1.2	
6	Absolute measurements and calculation of triple electron capture cross sections in fast 0.5-1 MeV/u C6+ on Ar collisions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003 , 205, 522-527	1.2	
5	Excitation and Ionization In Fast Ion-Atom Collisions Due to Projectile [Electron Target] Electron Interactions 1995 , 37-52		

- 4 X-ray spectroscopy of electronic quasimolecules. II. Emission anisotropy of selected K molecular-orbital transitions. *Physical Review A*, **1988**, 37, 426-436 2.6
- 3 Electron correlation in simultaneous electron transfer and excitation: results of new 2eAOCC calculations and comparison to experiment in 50-500 keV He⁺ + H/H₂ collisions. *Journal of Physics: Conference Series*, **2020**, 1412, 162017 0.3
- 2 Z_p- and q-dependence of 0⁺ binary encounter electrons in 1⁺ MeV/u collisions of ions with H₂ and He targets **1991**, 61-65
- 1 Li-like carbon Auger KLL measurements of mixed-state C⁴⁺(1s² 1S, 1s2s 3S) ions in 6-15 MeV collisions with He and comparison to 3eAOCC calculations. *Journal of Physics: Conference Series*, **2020**, 1412, 162003 0.3