Frederick Currell

List of Publications by Year
in descending order

78 papers	1,732 citations	304743 22 h-index	289244 40 g-index
83 all docs	83 docs citations	83 times ranked	1771 citing authors

#	Article	IF	Citations
1	Fast Ion-Beam Inactivation of Viruses, Where Radiation Track Structure Meets RNA Structural Biology. Radiation Research, 2022, 198, .	1.5	2
2	Dynamics of intracellular clusters of nanoparticles. Cancer Nanotechnology, 2022, 13, .	3.7	8
3	Real-Time Electron Solvation Induced by Bursts of Laser-Accelerated Protons in Liquid Water. Physical Review Letters, 2021, 127, 186001.	7.8	3
4	Cancer research, treatment, and COVID-19. Cancer Nanotechnology, 2020, 11, 7.	3.7	0
5	Nuclear Uptake of Gold Nanoparticles Deduced Using Dualâ€Angle Xâ€Ray Fluorescence Mapping. Particle and Particle Systems Characterization, 2019, 36, 1900140.	2.3	7
6	Physical Radiation Enhancement Effects Around Clinically Relevant Clusters of Nanoagents in Biological Systems. Scientific Reports, 2019, 9, 8156.	3.3	20
7	New Research in Ionizing Radiation andÂNanoparticles: The ARGENT Project. , 2017, , 379-434.		1
8	Protein disulphide isomerase as a target for nanoparticle-mediated sensitisation of cancer cells to radiation. Nanotechnology, 2016, 27, 215101.	2.6	36
9	Imaging intracellular and systemicin vivogold nanoparticles to enhance radiotherapy. British Journal of Radiology, 2015, 88, 20150170.	2.2	16
10	A New Mechanism for Hydroxyl Radical Production in Irradiated Nanoparticle Solutions. Small, 2014, 10, 3338-3346.	10.0	120
11	Radiosensitising Nanoparticles as Novel Cancer Therapeutics â€" Pipe Dream or Realistic Prospect?. Clinical Oncology, 2013, 25, 593-603.	1.4	66
12	Probing nuclear properties by resonant atomic collisions between electrons and ions. Physica Scripta, 2013, T156, 014050.	2.5	23
13	Antiproton induced DNA damage: proton like in flight, carbon-ion like near rest. Scientific Reports, 2013, 3, 1770.	3.3	21
14	Cold atmospheric pressure plasma jets: Interaction with plasmid DNA and tailored electron heating using dual-frequency excitation. , 2012, , .		3
15	Dielectronic recombination of in-flight synthesized exotic isotopes. Journal of Physics: Conference Series, 2012, 388, 062042.	0.4	7
16	Breit interaction in dielectronic recombination of H-like uranium. Journal of Physics: Conference Series, 2012, 388, 062034.	0.4	0
17	Cold atmospheric pressure plasma jet interactions with plasmid DNA. Applied Physics Letters, 2011, 98, .	3.3	138
18	Breit interaction in dielectronic recombination of hydrogenlike uranium. Physical Review A, 2011, 83, .	2.5	61

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19	Angular correlations in radiative cascades following resonant electron capture by highly charged ions. Physical Review A, 2011, 84, .	2.5	13
20	Characterization and parametrization in terms of atomic number of x-ray emission from<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>K</mml:mi></mml:mrow></mml:math>-shell filling during ion-surface interactions. Physical Review A, 2011, 83, .	2.5	6
21	Activities at the Tokyo EBIT 2010. Journal of Instrumentation, 2010, 5, C08007-C08007.	1.2	1
22	Experimental setup and first measurement of DNA damage induced along and around an antiproton beam. European Physical Journal D, 2010, 60, 209-214.	1.3	4
23	Resonant recombination at ion storage rings: a conceptual alternative for isotope shift and hyperfine studies. Hyperfine Interactions, 2010, 196, 115-127.	0.5	35
24	Dielectronic recombination in He-like, Li-like, and Be-like highly charged ions in theKLLandKLMmanifolds. Physical Review A, 2010, 81, .	2.5	27
25	Evaluation of cytotoxicity and radiation enhancement using 1.9 nm gold particles: potential application for cancer therapy. Nanotechnology, 2010, 21, 295101.	2.6	194
26	Resonant recombination at ion storage rings: a conceptual alternative for isotope shift and hyperfine studies. , 2010, , 115-127.		0
27	Numerical simulation of the charge balance and temperature evolution in an electron beam ion trap. Physical Review Special Topics: Accelerators and Beams, 2009, 12, .	1.8	8
28	Fragmentation and plasmid strand breaks in pure and gold-doped DNA irradiated by beams of fast hydrogen atoms. Physics in Medicine and Biology, 2009, 54, 4705-4721.	3.0	13
29	Isotope shifts in dielectronic recombination: From stable to in-flight-produced nuclei. Journal of Physics: Conference Series, 2009, 194, 012023.	0.4	26
30	Variation of Strand Break Yield for Plasmid DNA Irradiated with High-ZMetal Nanoparticles. Radiation Research, 2008, 170, 381-387.	1.5	81
31	Isotope Shift in the Dielectronic Recombination of Three-Electron<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>Nd</mml:mi><mml:none /><mml:mrow><mml:mn>57</mml:mn><mml:mo>+</mml:mo></mml:mrow><mml:mprescripts /><mml:none /><mml:mi>A</mml:mi></mml:mmultiscripts></mml:math>. Physical Review Letters, 2008,	7.8	102
32	Two-electron QED contributions to the ground-state binding energy in He-like<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi mathvariant="normal">Kr</mml:mi><mml:mrow><mml:mn>34</mml:mn><mml:mo>+</mml:mo></mml:mrow></mml:msup></mml:ma Physical Review A, 2008, 77, .	2.5	8
33	Investigation of an electron string ion source with field emission cathode. Review of Scientific Instruments, 2008, 79, 02A701.	1.3	1
34	Recent activities at the Tokyo EBIT 2006. Canadian Journal of Physics, 2008, 86, 315-319.	1.1	1
35	Branching ratios of x-ray photons from dielectronic recombination processes in H-like titanium ions. Physical Review A, 2008, 77, .	2.5	15
36	Dielectronic recombination of He-like to C-like iodine ions. Physical Review A, 2007, 75, .	2.5	44

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37	Photorecombination studies of highly charged ions at the storage ring ESR: a progress report. Journal of Physics: Conference Series, 2007, 58, 81-86.	0.4	2
38	Relativistic effects on resonant interactions between electrons and highly charged ions. Journal of Physics: Conference Series, 2007, 88, 012066.	0.4	8
39	Injection of refractory metals into EBIT using a Knudsen cell. Journal of Physics: Conference Series, 2007, 58, 403-406.	0.4	6
40	Radiation from K-shell filling in highly charged ions: a driver for resonant combination cancer therapy?. Journal of Physics: Conference Series, 2007, 58, 439-442.	0.4	1
41	Effect of Target Polarization in Electron-Ion Recombination. Physical Review Letters, 2006, 97, 223201.	7.8	10
42	Injection of metallic elements into an electron-beam ion trap using a Knudsen cell. Review of Scientific Instruments, 2006, 77, 066110.	1.3	26
43	Parity nonconservation in electron recombination of multiply charged ions. Physical Review A, 2005, 72, .	2.5	16
44	A New Device for the Study of Electronâ€“Ion Interactions: The Belfast EBIT. Physica Scripta, 2005, T120, 53-55.	2.5	3
45	Design of an electron-beam ion trap to be situated at Queenâ€™s University, Belfast. Review of Scientific Instruments, 2004, 75, 1551-1553.	1.3	2
46	Dielectronic recombination in He-like titanium ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 2343-2353.	1.5	37
47	The role of target polarization in electronâ€“ion recombination. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 2411-2428.	1.5	11
48	Electron Impact Ionisation of Hydrogen-Like Ions. , 2003, , 333-349.		1
49	Thomson scattering system at the Tokyo electron beam ion trap. Review of Scientific Instruments, 2002, 73, 42-46.	1.3	11
50	Electron impact ionization of hydrogen-like molybdenum ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 5095-5103.	1.5	19
51	Pulsed Evaporative Cooling of Ion Cloud in an Electron Beam Ion Trap. Physica Scripta, 2001, T92, 102-104.	2.5	3
52	The measurement of the dielectronic recombination in He-like Fe ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, 5095-5102.	1.5	52
53	Electron-impact ionization of hydrogen-like iron ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, 4003-4013.	1.5	25
54	Magnetic dipole transitions in titaniumlike ions. Physical Review A, 2001, 63, .	2.5	40

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55	Electron spectroscopy of doubly excited states in He produced by slow collisions ofHe2+ions with Ba atoms. Physical Review A, 2001, 64, .	2.5	7
56	Application to argon ions of a new technique to measure the two-electron contribution to the ground state energy of helium-like ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 727-734.	1.5	5
57	High-resolution x-ray spectromicroscopy with the Tokyo electron beam ion trap. Review of Scientific Instruments, 1999, 70, 1658-1664.	1.3	17
58	A new method for nondestructively monitoring the position of a charged particle beam in real time. Review of Scientific Instruments, 1999, 70, 2288-2292.	1.3	0
59	Electron-Ion Interactions and Spectroscopy of Highly Charged Ions Studied Using the Tokyo EBIT. Physica Scripta, 1999, T80, 154.	2.5	2
60	The present status of the Tokyo electron beam ion trap. Review of Scientific Instruments, 1998, 69, 694-696.	1.3	24
61	Angular distribution of metastable fragments of produced by electron impact dissociative excitation of. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 3287-3296.	1.5	3
62	Electron-impact excitation of the doubly excited states of helium below the N=3He+threshold. Physical Review A, 1997, 55, 318-328.	2.5	19
63	Projectile charge dependence of multi-electron transfer processes in highly charged ion-atom collisions. Physica Scripta, 1997, T73, 182-184.	2.5	4
64	Control system of the Tokyo electron beam ion trap. Physica Scripta, 1997, T73, 365-367.	2.5	4
65	Extraction of trapped ions from the Tokyo electron beam ion trap. Physica Scripta, 1997, T73, 368-370.	2.5	5
66	Detector systems for use with an electron beam ion trap. Physica Scripta, 1997, T73, 371-372.	2.5	16
67	X-ray spectroscopy at the Tokyo electron beam ion trap. Physica Scripta, 1997, T73, 90-92.	2.5	8
68	An overview of the Tokyo electron beam ion trap. Physica Scripta, 1997, T73, 362-364.	2.5	58
69	Ejected electron spectra from doubly-excited states He (2lnl') produced by He2+-Mg, Ca and Ba collisions. Physica Scripta, 1997, T73, 205-206.	2.5	1
70	Measurements of cross sections and oscillator strengths by electron impact for the 5dand 7slevels of Xe. Physical Review A, 1996, 53, 4138-4144.	2.5	16
71	Search forH2â^'resonances in the detachment ofHâ^'by electron impact with a high-resolution cooler ring. Physical Review A, 1996, 54, 4069-4072.	2.5	25
72	Physics B: Atomic, Molecular and Optical Physics, 1996, 29, 1995-2006.	1.5	4

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73	Decay of multiply excited Rydberg ions produced in I10+-rare-gas collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, L9-L13.	1.5	11
74	Target dependence of multi-electron processes in Iq+(q=10, 15)+rare gas (Ne, Ar, Kr and Xe) collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 2959-2972.	1.5	28
75	Electron spectra from singlet and triplet states of O4+(1s23l3l', 1s23l4l') produced by 60 and 120 keV O6++He, Ne, Ar collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 4743-4758.	1.5	17
76	The observation of post-collision interaction in states of N2O excited by electron impact. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, 583-591.	1.5	2
77	Ejected-electron spectra from the triplet states of O4+(1s23l3l') produced by O6++O2collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 1994, 27, L785-L793.	1.5	13
78	A photoelectron study of resonance structure in the argon correlation satellites. Journal of Physics B: Atomic, Molecular and Optical Physics, 1989, 22, 3217-3226.	1.5	53