

# Roger Hutton

## List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	EXTENDED RELATIVISTIC CONFIGURATION INTERACTION AND MANY-BODY PERTURBATION CALCULATIONS OF SPECTROSCOPIC DATA FOR THE N <sup>6</sup> CONFIGURATIONS IN Ne-LIKE IONS BETWEEN Cr xv AND Kr xxvii. Astrophysical Journal, Supplement Series, 2016, 226, 14.	7.7	42
2	A NOVEL METHOD TO DETERMINE MAGNETIC FIELDS IN LOW-DENSITY PLASMA FACILITATED THROUGH ACCIDENTAL DEGENERACY OF QUANTUM STATES IN Fe <sup>9+</sup> . Astrophysical Journal, 2015, 807, 69.	4.5	37
3	ATOMIC-LEVEL PSEUDO-DEGENERACY OF ATOMIC LEVELS GIVING TRANSITIONS INDUCED BY MAGNETIC FIELDS, OF IMPORTANCE FOR DETERMINING THE FIELD STRENGTHS IN THE SOLAR CORONA. Astrophysical Journal, 2016, 826, 219.	4.5	35
4	Experimental and theoretical study of the ground-state $M_{1}$ transition in Ag-like tungsten. Physical Review A, 2012, 86, .	2.5	34
5	Forbidden-line spectroscopy of the ground-state configuration of Cd-like W. Physical Review A, 2014, 90, .	2.5	32
6	Hinode/EIS Measurements of Active-region Magnetic Fields. Astrophysical Journal, 2020, 904, 87.	4.5	32
7	Calculations with spectroscopic accuracy for the ground configuration ( $T_{j}$ ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 507 forbidden transition in Co-like ions. Physical Review A, 2016, 93, .	2.5	29
8	Three-body fragmentation of methane dications produced by slow $A_{r}$ ion impact. Physical Review A, 2018, 97, .	2.5	28
9	A First Spectroscopic Measurement of the Magnetic-field Strength for an Active Region of the Solar Corona. Astrophysical Journal Letters, 2020, 898, L34.	8.3	26
10	Tungsten spectroscopy in the EUV range observed at a high-temperature superconducting electron-beam ion trap. Physical Review A, 2015, 91, .	2.5	25
11	Breit and QED effects on the $3d_{3/2}D_{3/2}$ transition in Ag-like tungsten. Physical Review A, 2012, 86, .	2.5	25
12	Study of the first intershell (KLL) dielectronic recombination resonances for Be-, B-, and C-like xenon. Physics of Plasmas, 2007, 14, 103302.	1.9	20
13	Precise studies on resonant energies of the first intershell (KLL) dielectronic recombination processes for He- up to O-like xenon. Physics of Plasmas, 2008, 15, 083301.	1.9	20
14	Coronal lines and the importance of deep-core valence correlation in Ag-like ions. Physical Review A, 2014, 89, .	2.5	20
15	Fragmentation mechanisms for methane induced by 55 eV, 75 eV, and 100 eV electron impact. Journal of Chemical Physics, 2014, 140, 124303.	3.0	20
16	Proton migration in hydrocarbons induced by slow highly charged ion impact. Journal of Chemical Physics, 2019, 150, 204303.	3.0	20
17	Hinode/EIS Coronal Magnetic Field Measurements at the Onset of a C2 Flare. Astrophysical Journal, 2021, 913, 1.	4.5	20
18	Effect of an external magnetic field on the determination of E1M1 two-photon decay rates in Be-like ions. Physical Review A, 2013, 88, .	2.5	18

#	ARTICLE	IF	CITATIONS
19	Fragmentation of $\text{CO}^{2+}$ in collisions with low-energy electrons. <i>Physical Review A</i> , 2014, 90, .	2.5	18
20	Upgrade of the electron beam ion trap in Shanghai. <i>Review of Scientific Instruments</i> , 2014, 85, 093301.	1.3	18
21	Proposal of highly accurate tests of Breit and QED effects in the ground state of the F-like isoelectronic sequence. <i>Physical Review A</i> , 2018, 98, .		
22	High-resolution tungsten spectroscopy relevant to the diagnostic of high-temperature tokamak plasmas. <i>Physical Review A</i> , 2018, 97, .	2.5	17
23	Theoretical investigation of magnetic-field-induced $2p \rightarrow 3p$ transitions in Fe X. <i>Physical Review A</i> , 2021, 103, 013401.	2.5	16
24	A Theoretical Investigation of the Magnetic-field-induced Transition in Fe X, of Importance for Measuring Magnetic Field Strengths in the Solar Corona. <i>Astrophysical Journal</i> , 2021, 913, 135.	4.5	14
25	A portable high-resolution soft x-ray and extreme ultraviolet spectrometer designed for the Shanghai EBIT and the Shanghai low energy EBITS. <i>Review of Scientific Instruments</i> , 2014, 85, 063110.	1.3	13
26	Direct measurements for the fine-structure splitting of S viii and Cl ix. <i>Physical Review A</i> , 2020, 102, .	2.5	13
27	ON THE FINE STRUCTURE SPLITTING OF THE $3p^4 3d^4 D_{5/2}$ AND $3p^4 3d^4 D_{7/2}$ LEVELS OF Fe x. <i>Astrophysical Journal</i> , 2016, 833, 185.	4.5	11
28	Collision cross sections of $N^{2+}$ by $H^{+}$ impact at keV energies within time-dependent density-functional theory. <i>Physical Review A</i> , 2018, 97, .	2.5	11
29	SUMER Measurement of the $Fe\ x\ 3p^4 3d^4 D_{5/2,7/2}$ Energy Difference. <i>Astrophysical Journal</i> , 2020, 902, 21.	4.5	11
30	Quantum interference between resonant and nonresonant photorecombination. <i>Physical Review A</i> , 2016, 93, .	2.5	10
31	Dual Fano and Lorentzian line profile properties of autoionizing states. <i>Physical Review A</i> , 2015, 91, .	2.5	9
32	Proposal for observation of transitions induced by external magnetic fields mixing in the lower states: with an example from Fe X. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020, 53, 095002.	1.5	8
33	Analysis of the competition between forbidden and hyperfine-induced transitions in Ne-like ions. <i>Physical Review A</i> , 2016, 93, .	2.5	7
34	Characteristics of the Shanghai high-temperature superconducting electron-beam ion trap and studies of the space-charge effect under ultralow-energy operating conditions. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	7
35	HYPERFINE-DEPENDENT $gf$ -VALUES OF Mn I LINES IN THE 1.49-1.80 $\mu\text{m}$ H BAND. <i>Astrophysical Journal, Supplement Series</i> , 2015, 216, 2.	7.7	6
36	Lifetime calculations for the $5s5p^2 3P$ metastable level of Sr88I. <i>Physical Review A</i> , 2007, 75, .	2.5	5

#	ARTICLE	IF	CITATIONS
37	Forbidden and Unexpected atomic transitions. , 2009, , .		5
38	Responsivity calibration of the extreme ultraviolet spectrometer in the range of 175-435 Å... AIP Advances, 2017, 7, .	1.3	4
39	Observation of an extremely-long-lived metastable level in a Ti-like system via an $L$ -shell dielectronic recombination measurement in highly charged ions of tungsten. Physical Review A, 2017, 96, .	2.5	4
40	Simulation studies for operating electron beam ion trap at very low energy for disentangling edge plasma spectra. Physics of Plasmas, 2012, 19, .	1.9	3
41	Magnetic field- and hyperfine-induced transitions in Be- and Ne-like ions. Physical Review A, 2017, 96, .	2.5	3
42	A high precision flat crystal spectrometer compatible for ultra-high vacuum light source. Review of Scientific Instruments, 2017, 88, 113108.	1.3	3
43	The 13th International Colloquium on Atomic Spectra and Oscillator Strengths for Astrophysical and Laboratory Plasmas. Atoms, 2020, 8, 43.	1.6	0
44	Magnetically induced transition in the spectrum of Sr iv. Physical Review A, 2021, 103, .	2.5	0