

# Rajesh Srivastava

## List of Publications by Year in descending order

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128  
papers

1,351  
citations

430754

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128  
all docs

128  
docs citations

128  
times ranked

590  
citing authors

#	ARTICLE	IF	CITATIONS
1	Two-dipole and three-dipole interaction coefficients of group XII elements. Physica B: Condensed Matter, 2022, 624, 413422.	1.3	1
2	Diagnostics of Ne- Ar mixture plasma using a fine-structure resolved collisional radiative model. Contributions To Plasma Physics, 2022, 62, .	0.5	1
3	Diagnostic of Ar-CO <sub>2</sub> mixture plasma using a fine-structure resolved collisional radiative model. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2021, 175, 106019.	1.5	4
4	Dispersion coefficients for physisorption of heavy ions and atoms with graphene and carbon nanotubes. Physical Review A, 2021, 104, .	1.0	3
5	A new approach to study electron and positron scattering from acetylene. Journal of Electron Spectroscopy and Related Phenomena, 2021, 252, 147118.	0.8	5
6	Study of electron scattering from $\text{CH}_4^+$ , $\text{NH}_3^+$ , $\text{H}_2\text{O}^+$ , $\text{NH}_4^+$ and $\text{H}_3\text{O}^+$ molecular ions with an analytic static potential approach. European Physical Journal D, 2021, 75, 1.	0.6	1
7	Study of Positron Impact Scattering from Methane and Silane Using an Analytically Obtained Static Potential with Correlation Polarization. Atoms, 2021, 9, 113.	0.7	3
8	Study of Electron and Positron Elastic Scattering from Hydrogen Sulphide Using Analytically Obtained Static Potential. Atoms, 2020, 8, 83.	0.7	2
9	Electron-impact excitation of W <sup>40+</sup> ions: Cross-section and polarization. International Journal of Modern Physics B, 2020, 34, 2050241.	1.0	0
10	Two-dipole and three-dipole dispersion coefficients for interaction of alkaline-earth-metal atoms with alkaline-earth-metal atoms and alkaline-earth-metal ions. Physical Review A, 2020, 102, .	1.0	5
11	Detailed electron impact fine-structure excitation cross-sections of Kr <sup>+</sup> and linear polarization of its subsequently emitted photons. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 253, 106992.	1.1	1
12	Electron impact excitation of Ge-like to Cu-like xenon ions in the extreme ultraviolet. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 165001.	0.6	2
13	An approach to study electron and positron scattering from NH <sub>3</sub> and PH <sub>3</sub> using the analytic static potential. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 225204.	0.6	6
14	Modeling of laser produced Zn plasma with detailed electron impact fine structure excitation cross-sections. Plasma Sources Science and Technology, 2019, 28, 095009.	1.3	6
15	Diagnostics of low-temperature neon plasma through a fine-structure resolved collisional-radiative model. Plasma Sources Science and Technology, 2019, 28, 115010.	1.3	15
16	Electron impact elastic scattering from methane and silane molecules. European Physical Journal D, 2019, 73, 1.	0.6	7
17	Electron-impact excitations of highly charged tungsten ions and polarization study of their successive photon decay. European Physical Journal D, 2019, 73, 1.	0.6	3
18	Collisional-radiative model of xenon plasma with calculated electron-impact fine-structure excitation cross-sections. Plasma Sources Science and Technology, 2019, 28, 025003.	1.3	29

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19	Electron impact N-shell excitation of Se-like to Ga-like tungsten ions and polarization of their subsequent emissions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 222-223, 247-256.	1.1	3
20	Electron-Impact Excitation of Pb+. Springer Proceedings in Physics, 2019, , 250-256.	0.1	1
21	Diagnostics of Ar/N2 Mixture Plasma with Reliable Electron Impact Argon Excitation Cross Sections. Springer Proceedings in Physics, 2019, , 106-114.	0.1	0
22	Electron Excitation Cross Sections of Fine-Structure (5p56sâ€“5p56p) Transitions in Xenon. Springer Proceedings in Physics, 2019, , 172-179.	0.1	0
23	Electron-impact coherence parameters for 4<sup>1</sup><i>P</i><sub>1</sub> excitation of zinc. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 085002.	0.6	4
24	Application of relativistic coupled-cluster theory to electron impact excitation of Mg+ in the plasma environment. European Physical Journal D, 2018, 72, 1.	0.6	18
25	Collisional radiative model for Ar-O2 mixture plasma with fully relativistic fine structure cross sections. Physics of Plasmas, 2018, 25, 043517.	0.7	9
26	Diagnostics of Ar/N2 mixture plasma with detailed electron-impact argon fine-structure excitation cross sections. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2018, 149, 203-213.	1.5	14
27	Electron-impact excitation of Xe+ and polarization of its subsequent emissions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 219, 7-22.	1.1	10
28	A novel approach for statistical downscaling of future precipitation over the Indo-Gangetic Basin. Journal of Hydrology, 2017, 547, 21-38.	2.3	11
29	Dynamics of Surface Streamer Plasmas at Atmospheric Pressure: Mixtures of Argon and Methane. IEEE Transactions on Plasma Science, 2017, 45, 1776-1787.	0.6	6
30	Study of electron excitation of Rb-like to Br-like tungsten ions and polarization of their photon emission. European Physical Journal D, 2017, 71, 1.	0.6	8
31	Electron impact excitation of tin. European Physical Journal D, 2017, 71, 1.	0.6	5
32	LXCat: an Openâ€“Access, Webâ€“Based Platform for Data Needed for Modeling Low Temperature Plasmas. Plasma Processes and Polymers, 2017, 14, 1600098.	1.6	188
33	Electron-molecule scattering with analytic static potential approach. EPJ Web of Conferences, 2016, 113, 08017.	0.1	0
34	Spectroscopic diagnostics of low-pressure inductively coupled Kr plasma using a collisionalâ€“radiative model with fully relativistic cross sections. Plasma Sources Science and Technology, 2016, 25, 035025.	1.3	21
35	Electron-impact excitation rate-coefficients and polarization of subsequent emission for Ar+ ion. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 176, 12-23.	1.1	17
36	Polarization correlations for electron-impact excitation of neon at 50 eV. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 185201.	0.6	2

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37	Fully Relativistic Electron Impact Excitation Cross-Section and Polarization for Tungsten Ions. <i>Atoms</i> , 2015, 3, 53-75.	0.7	8
38	Electron impact excitation and polarization studies of Fe-like W48+ to Al-like W61+ ions. <i>Canadian Journal of Physics</i> , 2015, 93, 888-897.	0.4	14
39	L-shell electron excitations of Mg- through O-like tungsten ions. <i>Physica Scripta</i> , 2014, 89, 085403.	1.2	10
40	A method to obtain static potentials for electron-molecule scattering. <i>European Physical Journal D</i> , 2014, 68, 1.	0.6	9
41	Stokes parameters for the electron-impact excitation of the state of zinc atom. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2014, 378, 641-643.	0.9	4
42	Electron impact excitation from the initially excited cadmium atom. <i>International Journal of Mass Spectrometry</i> , 2014, 362, 9-17.	0.7	0
43	Collisional-radiative model for non-Maxwellian inductively coupled argon plasmas using detailed fine-structure relativistic distorted-wave cross sections. <i>European Physical Journal D</i> , 2013, 67, 1.	0.6	25
44	Relativistic Electron-Atom Collisions: Recent Progress and Applications. <i>Springer Series on Atomic, Optical, and Plasma Physics</i> , 2013, , 149-166.	0.1	3
45	Electron impact excitation of the M-shell electrons from Zn-like through Co-like tungsten ions. <i>Physica Scripta</i> , 2012, 86, 035301.	1.2	12
46	Electron excitation of the $4s^2 4p^2$ levels of a zinc atom. <i>Physical Review A</i> , 2012, 86, .	1.0	10
47	A theoretical examination of the GOS method for normalizing relative cross section data - the case of indium. <i>Journal of Physics: Conference Series</i> , 2012, 388, 042024.	0.3	0
48	Electron impact excitation of the resonance transition $4s^2 4p^2$ levels of a zinc atom. <i>Physical Review A</i> , 2012, 86, .	0.9	7
49	Near-infrared collisional radiative model for Xe plasma electrostatic thrusters: the role of metastable atoms. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 185203.	1.3	43
50	Electron impact excitation of the $5s^2 5p^2$ levels of xenon from $5s^2 5p^2 6s$ metastable states. <i>Journal of Physics: Conference Series</i> , 2009, 185, 012042.	0.3	2
51	Excitation of the $6s^2 P_{11,3}$ states of mercury by spin-resolved electron impact. <i>Physical Review A</i> , 2009, 80, .	1.0	4
52	Isolation and characterization of degradation impurities in epirubicin hydrochloride injection. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2008, 869, 45-53.	1.2	8
53	Electron excitation of the $3s^2 3p^2$ levels of a zinc atom. <i>Physical Review A</i> , 2008, 77, .	1.0	4
54	Elastic electron scattering by a Pb atom. <i>Physical Review A</i> , 2008, 77, .	1.0	20

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55	Excitation of the $3p^3$ levels of argon from the $3p^3$ metastable state of calcium. Journal of Physics: Conference Series, 2007, 80, 012019.	1.0	19
56	Electron-impact excitation of the $6p7sP13$ state of Pb atom at small scattering angles. Physical Review A, 2007, 75, .	1.0	11
57	Excitation of the $6p7sP0,13$ states of Pb atoms by electron impact: Differential and integrated cross sections. Physical Review A, 2007, 76, .	1.0	8
58	Excitation of the metastable states of argon. Journal of Physics: Conference Series, 2007, 80, 012019.	0.3	2
59	Electron excitation of the $4s4p^3P$ metastable state of calcium. Journal of Physics: Conference Series, 2007, 80, 012020.	0.3	0
60	Excitation of atomic oxygen by electron impact. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 3025-3035.	0.6	5
61	Study of electron impact excitation of atoms through lasers. Radiation Physics and Chemistry, 2006, 75, 2136-2150.	1.4	1
62	Electron-impact excitation of the $3s3p^1P1$ state of magnesium: Electron scattering at small angles. International Journal of Mass Spectrometry, 2006, 251, 66-72.	0.7	15
63	Electron scattering by magnesium: excitation of the $3s3p^1P1$ state. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 2583-2592.	0.6	11
64	Excitation of the metastable states of the noble gases. Physical Review A, 2006, 74, .	1.0	42
65	Electron impact excitation of the $41P1$ state of calcium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, 2385-2394.	0.6	27
66	Inelastic electron scattering from excited barium atoms. Physical Review A, 2005, 71, .	1.0	4
67	Triple differential cross sections of coplanar symmetric $(e,2e)$ processes on calcium at low energies. Physical Review A, 2005, 71, .	1.0	15
68	Electron-impact excitation of $Si^{2+}$ : differential cross sections and Stokes parameters. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 2045-2055.	0.6	7
69	Electron impact coherence parameters for the excitation of the $61S0 \rightarrow 61P1$ transition in barium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 2165-2172.	0.6	2
70	Electron-impact excitation of the $3s3pP01$ state of Mg-like ions: $S^{4+}$ , $Ar^{6+}$ , and $Ca^{8+}$ . Physical Review A, 2004, 70, .	1.0	15
71	Electron impact excitation of the D states of Mg, Ca and Sr atoms: Complete experiment results. Pramana - Journal of Physics, 2004, 63, 977-991.	0.9	2
72	Complete description of the excitation of the $63P1$ and $61P1$ states of mercury by spin-polarized electrons. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 2341-2356.	0.6	8

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73	Orientation propensities in spin-resolved electron-impact excitation of mercury. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 4439-4451.	0.6	14
74	Excitation of the D states of magnesium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, 2071-2079.	0.6	9
75	Excitation of thallium and lead atoms by electrons in the relativistic distorted-wave approximation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 2539-2548.	0.6	10
76	Electron-photon coincidence study of the collisional excitation of the Ca state. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 837-844.	0.6	20
77	Study of electron-impact excitation of metastable Ne ( $2p^5 3s^3 P^2$ ) substates using laser-induced fluorescence. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 4447-4456.	0.6	3
78	Excitation of the lowest autoionizing $n^2 P_{3/2, 1/2}$ states of Na ( $n=2$ ), K ( $n=3$ ), Rb ( $n=4$ ) and Cs ( $n=$ )	0.6	16
79	Excitation of the $n^2 P_{3/2, 1/2}$ ( $J=1, 2$ and $3$ ) states of the inert gases by spin-polarized electrons: integrated state multipoles and Stokes parameters. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 4331-4359.	0.6	5
80	Electron-photon coincidence studies on electron impact excitation of lighter neutral atoms. Pramana - Journal of Physics, 1998, 50, 683-698.	0.9	0
81	Excitation of $3^1 P$ and $3^1 D$ states of helium from the ground $1^1 S$ state by electrons and positrons. Pramana - Journal of Physics, 1998, 50, 355-396.	0.9	2
82	Electron impact excitation of the states of Ar, Kr and Xe atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 4833-4852.	0.6	31
83	Stokes parameters and differential cross sections for electron impact excitation of the $J=1, 2$ and $3$ states of neon. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 157-174.	0.6	15
84	Electron impact excitation of magnesium and zinc atoms in the relativistic distorted-wave approximation. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 1027-1042.	0.6	21
85	Differential cross sections and angular correlations in electron excitation of the $3D$ states of atomic hydrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 1293-1307.	0.6	2
86	Excitation of the states of mercury by polarized electrons. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, 3513-3527.	0.6	8
87	State multipoles and Stokes parameters for the $5^1 D^2$ excitation of cadmium. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1996, 37, 141-147.	1.0	0
88	Excitation of the $3D$ states of helium by electrons and positrons. Canadian Journal of Physics, 1996, 74, 509-517.	0.4	1
89	Excitation from metastable $2^3 S_1$ states of helium by electrons and positrons. Canadian Journal of Physics, 1996, 74, 521-526.	0.4	2
90	Electron impact excitation of the states of lithium, sodium and potassium atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, 3215-3234.	0.6	6

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91	Excitation of the lowest and states in argon and xenon by polarized electrons. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, 5947-5960.	0.6	9
92	Electron - photon polarization correlation study of the state of Ca atoms excited by electron impact. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, 5919-5926.	0.6	10
93	Electron impact excitation of spin-polarized sodium and potassium atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, L135-L140.	0.6	1
94	Electron impact resonance excitation in potassium: differential cross sections, alignment, orientation and asymmetry parameters. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 4823-4840.	0.6	9
95	Excitation of the 23S metastable state of helium by electrons. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 1023-1048.	0.6	4
96	Relativistic distorted-wave calculation of electron excitation of ytterbium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 885-891.	0.6	13
97	Relativistic distorted-wave calculation of the excitation of the 3D <sub>3</sub> state of heavy noble gases. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 869-877.	0.6	13
98	Angular correlation and differential cross sections in e <sup>-</sup> H(12S <sup>o</sup> →32P) excitation. Physical Review A, 1994, 50, 2269-2272.	1.0	5
99	Electron and positron impact excitation of hydrogen from the initially excited 22S state to 32S and 32P states. Hyperfine Interactions, 1994, 89, 469-476.	0.2	2
100	Title is missing!. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, 3709-3720.	0.6	44
101	Excitation of the D states of cadmium and barium by electron impact. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, 4033-4043.	0.6	17
102	Relativistic distorted-wave calculation of electron excitation of cadmium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, 1073-1087.	0.6	20
103	Relativistic distorted-wave calculation of electron excitation of mercury. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, 2409-2425.	0.6	21
104	Alignment and orientation in the electron-impact excitation of H <sup>-</sup> and He-like ions. Physical Review A, 1991, 43, 4736-4741.	1.0	15
105	Polarization of line radiation emitted from He-like and H-like ions following electron impact. Physical Review A, 1991, 44, 7195-7198.	1.0	33
106	Distorted-wave calculation of elastic and inelastic scattering of electrons from cadmium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1991, 24, 1839-1850.	0.6	26
107	Differential Cross Section and Angular Correlation Parameters for Electron Impact Excitation of the 31P State of Magnesium. Journal of the Physical Society of Japan, 1990, 59, 4306-4312.	0.7	1
108	Elastic scattering of electrons and positrons by the cadmium atom. Physical Review A, 1989, 40, 2346-2350.	1.0	21

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109	Distorted-wave approximation for He (11S $\rightarrow$ 21P) excitation: Angular correlation and differential cross sections. <i>Physical Review A</i> , 1989, 40, 2749-2752.	1.0	4
110	Differential cross sections and angular-correlation parameters for $n=3$ excitations in hydrogen by electrons and positrons. <i>Physical Review A</i> , 1989, 40, 1289-1296.	1.0	10
111	Differential and total cross sections for the elastic scattering of $1 \times 10^4$ eV electrons from silicon using the optical model. <i>Journal of Applied Physics</i> , 1989, 65, 908-913.	1.1	8
112	Study of positron-ion collisions: a distorted wave approach. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1989, 22, 1253-1261.	0.6	4
113	Excitation of the lowest autoionizing levels in lithiumlike ions by electron impact. <i>Physical Review A</i> , 1988, 38, 5419-5422.	1.0	0
114	Study of elastic scattering of positrons from helium: A two-potential approach. <i>Physical Review A</i> , 1988, 37, 3580-3583.	1.0	2
115	Distorted-wave calculation of the cross sections and correlation parameters for $e^{\pm}$ -He(11S, 221S1P, 31S, 11P) excitation. <i>Physical Review A</i> , 1988, 37, 3720-3737.	1.0	11
116	Elastic scattering of electrons and positrons from ground (11S) and metastable (21,3S) states of helium: A model-potential approach. <i>Physical Review A</i> , 1988, 37, 3720-3737.	1.0	6
117	Metastable excitations in heliumlike ions by electrons and positrons: A distorted-wave approach. <i>Physical Review A</i> , 1988, 38, 5415-5418.	1.0	1
118	Cross sections for the resonance transitions in Mg II, Zn II and Cd II: a distorted-wave approach. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1988, 21, L219-L226.	0.6	10
119	$e^+$ -impact excitation of copper: a distorted-wave calculation for cross sections and correlation parameters. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1988, 21, 2655-2664.	0.6	12
120	Excitation of the rubidium atom by electrons and positrons: differential cross section and correlation parameters. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1988, 21, 4007-4013.	0.6	4
121	1s-2s and 1s-2p excitation of hydrogen by positrons. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1987, 20, 1853-1864.	1.6	15
122	$nS$ and $nP$ excitations of heliumlike ions by electrons: A precise distorted-wave polarized-orbital approach. <i>Physical Review A</i> , 1987, 35, 1080-1091.	1.0	11
123	Excitation of helium by positron: A distorted wave polarized orbital approach. <i>Journal of Chemical Physics</i> , 1986, 84, 4715-4717.	1.2	7
124	Systematic approach for discrete excitation of helium in the Coulomb-Born model. <i>Physical Review A</i> , 1985, 31, 652-658.	1.0	7
125	2s $\rightarrow$ 1S excitation of helium: A precise distorted wave approach. <i>Journal of Chemical Physics</i> , 1985, 82, 1818-1822.	1.2	17
126	Electron-impact double-electron excitation and autoionization in alkaline earths. <i>Physical Review A</i> , 1977, 15, 1906-1908.	1.0	4



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127	Fully relativistic study on electron impact elastic scattering from N q + ( q Â=Â1â€“3), Na + , Ar q + ( q Â=Â1â€“3), $\frac{1}{1.0}$ $\frac{1}{1.0}$	0.7843	14
128	Study of electron impact elastic scattering from Kr@C60 and Xe@C60 using a fully relativistic approach. Journal of Physics B: Atomic, Molecular and Optical Physics, 0, , .	0.6	0