

Rajesh Srivastava

List of Publications by Year in descending order

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128
papers

1,351
citations

430442

18
h-index

476904

29
g-index

128
all docs

128
docs citations

128
times ranked

590
citing authors

#	ARTICLE	IF	CITATIONS
1	LXCat: an Open-Access, Web-Based Platform for Data Needed for Modeling Low Temperature Plasmas. Plasma Processes and Polymers, 2017, 14, 1600098.	1.6	188
2	Title is missing!. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, 3709-3720.	0.6	44
3	Near-infrared collisional radiative model for Xe plasma electrostatic thrusters: the role of metastable atoms. Journal Physics D: Applied Physics, 2009, 42, 185203.	1.3	43
4	Excitation of the metastable states of the noble gases. Physical Review A, 2006, 74, .	1.0	42
5	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
6	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
7	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
8	Electron impact excitation of the 41P1state of calcium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, 2385-2394.	0.6	27
9	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
10	Collisional-radiative model for non-Maxwellian inductively coupled argon plasmas using detailed fine-structure relativistic distorted-wave cross sections. European Physical Journal D, 2013, 67, 1.	0.6	25
11	Elastic scattering of electrons and positrons by the cadmium atom. Physical Review A, 1989, 40, 2346-2350.	1.0	21
12	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
13	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
14	Spectroscopic diagnostics of low-pressure inductively coupled Kr plasma using a collisional-radiative model with fully relativistic cross sections. Plasma Sources Science and Technology, 2016, 25, 035025.	1.3	21
15	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
16	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
17	Elastic electron scattering by a Pb atom. Physical Review A, 2008, 77, .	1.0	20
18	Excitation of the $3p^3$ levels of argon from the $5p^3$ levels of argon from the $3p^3$ levels of argon.	1.0	19

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19	Application of relativistic coupled-cluster theory to electron impact excitation of Mg ⁺ in the plasma environment. <i>European Physical Journal D</i> , 2018, 72, 1.	0.6	18
20	2s-1S excitation of helium: A precise distorted wave approach. <i>Journal of Chemical Physics</i> , 1985, 82, 1818-1822.	1.2	17
21	Excitation of the D states of cadmium and barium by electron impact. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1992, 25, 4033-4043.	0.6	17
22	Electron-impact excitation rate-coefficients and polarization of subsequent emission for Ar ⁺ ion. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2016, 176, 12-23.	1.1	17
23	Excitation of the lowest autoionizing np ⁵ (n+1)s ² 2P ^{3/2,1/2} states of Na(n= 2), K(n= 3), Rb(n= 4) and Cs(n=) Tj ETQ _{01.1} 0.784314 rgB7	0.6	16
24	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
25	Alignment and orientation in the electron-impact excitation of H ⁻ and He-like ions. <i>Physical Review A</i> , 1991, 43, 4736-4741.	1.0	15
26	Stokes parameters and differential cross sections for electron impact excitation of the j= 1, 2 and 3 states of neon. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1998, 31, 157-174.	0.6	15
27	Electron-impact excitation of the 3s3p ¹ P ¹ state of Mg-like ions: S ⁴⁺ , Ar ⁶⁺ , and Ca ⁸⁺ . <i>Physical Review A</i> , 2004, 70, .	1.0	15
28	Triple differential cross sections of coplanar symmetric (e,2e) processes on calcium at low energies. <i>Physical Review A</i> , 2005, 71, .	1.0	15
29	Electron-impact excitation of the 3s3p ¹ P ¹ state of magnesium: Electron scattering at small angles. <i>International Journal of Mass Spectrometry</i> , 2006, 251, 66-72.	0.7	15
30	Diagnostics of low-temperature neon plasma through a fine-structure resolved collisional-radiative model. <i>Plasma Sources Science and Technology</i> , 2019, 28, 115010.	1.3	15
31	Orientation propensities in spin-resolved electron-impact excitation of mercury. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2002, 35, 4439-4451.	0.6	14
32	Electron impact excitation and polarization studies of Fe-like W ⁴⁸⁺ to Al-like W ⁶¹⁺ ions. <i>Canadian Journal of Physics</i> , 2015, 93, 888-897.	0.4	14
33	Diagnostics of Ar/N ₂ mixture plasma with detailed electron-impact argon fine-structure excitation cross sections. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2018, 149, 203-213.	1.5	14
34	Relativistic distorted-wave calculation of electron excitation of ytterbium. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1995, 28, 885-891.	0.6	13
35	Relativistic distorted-wave calculation of the excitation of the 3D ³ state of heavy noble gases. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1995, 28, 869-877.	0.6	13
36	e ⁺ or 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

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37	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
38	nS1 and nP1 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
39	Distorted-wave calculation of the cross sections and correlation parameters for e^{\pm} -He(11S, 221S1P, 31S, 1D) transitions. <i>Physical Review A</i> , 2011, 84, 013401.	1.0	11
40	Electron scattering by magnesium: excitation of the 3s3p1P1 state. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2006, 39, 2583-2592.	0.6	11
41	Electron-impact excitation of the 6p7sP13 state of Pb atom at small scattering angles. <i>Physical Review A</i> , 2007, 75, .	1.0	11
42	A novel approach for statistical downscaling of future precipitation over the Indo-Gangetic Basin. <i>Journal of Hydrology</i> , 2017, 547, 21-38.	2.3	11
43	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
44	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
45	Electron - photon polarization correlation study of the state of Ca atoms excited by electron impact. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1996, 29, 5919-5926.	0.6	10
46	Excitation of thallium and lead atoms by electrons in the relativistic distorted-wave approximation. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2000, 33, 2539-2548.	0.6	10
47	Electron excitation of the $4p^2$ state of a zinc atom. <i>Physical Review A</i> , 2012, 86, .	1.0	10
48	L-shell electron excitations of Mg- through O-like tungsten ions. <i>Physica Scripta</i> , 2014, 89, 085403.	1.2	10
49	Electron-impact excitation of Xe+ and polarization of its subsequent emissions. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 219, 7-22.	1.1	10
50	Electron impact resonance excitation in potassium: differential cross sections, alignment, orientation and asymmetry parameters. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1995, 28, 4823-4840.	0.6	9
51	Excitation of the lowest and states in argon and xenon by polarized electrons. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1996, 29, 5947-5960.	0.6	9
52	Excitation of the D states of magnesium. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2001, 34, 2071-2079.	0.6	9
53	A method to obtain static potentials for electron-molecule scattering. <i>European Physical Journal D</i> , 2014, 68, 1.	0.6	9
54	Collisional radiative model for Ar-O2 mixture plasma with fully relativistic fine structure cross sections. <i>Physics of Plasmas</i> , 2018, 25, 043517.	0.7	9

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55	Differential and total cross sections for the elastic scattering of $1\text{--}1000\text{ eV}$ electrons from silicon using the optical model. <i>Journal of Applied Physics</i> , 1989, 65, 908-913.	1.1	8
56	Excitation of the states of mercury by polarized electrons. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1996, 29, 3513-3527.	0.6	8
57	Complete description of the excitation of the $63\text{P}1$ and $61\text{P}1$ states of mercury by spin-polarized electrons. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2003, 36, 2341-2356.	0.6	8
58	Excitation of the $6p7sP0,13$ states of Pb atoms by electron impact: Differential and integrated cross sections. <i>Physical Review A</i> , 2007, 76, .	1.0	8
59	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
60	Fully Relativistic Electron Impact Excitation Cross-Section and Polarization for Tungsten Ions. <i>Atoms</i> , 2015, 3, 53-75.	0.7	8
61	Study of electron excitation of Rb-like to Br-like tungsten ions and polarization of their photon emission. <i>European Physical Journal D</i> , 2017, 71, 1.	0.6	8
62	Systematic approach for discrete excitation of helium in the Coulomb-Born model. <i>Physical Review A</i> , 1985, 31, 652-658.	1.0	7
63	Excitation of helium by positron: A distorted wave polarized orbital approach. <i>Journal of Chemical Physics</i> , 1986, 84, 4715-4717.	1.2	7
64	Electron-impact excitation of Si^{2+} : differential cross sections and Stokes parameters. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2004, 37, 2045-2055.	0.6	7
65	Electron impact excitation of the resonance transition $\langle m b\text{math}\hat{a}\text{f}\text{f}\text{ing}=\text{si1}\text{ gif}\text{ overflow}=\text{scroll}\text{ xmlns:xocs}=\text{http://www.elsevier.com/xml/xocs/dtd}\text{ xmlns:xs}=\text{http://www.w3.org/2001/XMLSchema}\text{ xmlns:xsi}=\text{http://www.w3.org/2001/XMLSchema-instance}\text{ xmlns}=\text{http://www.elsevier.com/xml/ja/dtd}\text{ xmlns:ja}=\text{http://www.elsevier.com/xml/ja/dtd}\text{ xmlns:mml}=\text{http://www.w3.org/1998/Math/MathML}\text{ xmlns:tb}=\text{http://www.elsevier.com/xml/common/table/dtd}\text{ xmlns:sb}=\text{http://www.elsevier.com/xml/common/struct-bib/dtd}\text{ xmlns:ce}=\text{h}$. <i>Physics Letters, Section</i>	0.9	7
66	Electron impact elastic scattering from methane and silane molecules. <i>European Physical Journal D</i> , 2019, 73, 1.	0.6	7
67	Elastic scattering of electrons and positrons from ground (11S) and metastable ($21,3\text{S}$) states of helium: A model-potential approach. <i>Physical Review A</i> , 1988, 37, 3720-3737.	1.0	6
68	Electron impact excitation of the states of lithium, sodium and potassium atoms. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1996, 29, 3215-3234.	0.6	6
69	Dynamics of Surface Streamer Plasmas at Atmospheric Pressure: Mixtures of Argon and Methane. <i>IEEE Transactions on Plasma Science</i> , 2017, 45, 1776-1787.	0.6	6
70	Modeling of laser produced Zn plasma with detailed electron impact fine structure excitation cross-sections. <i>Plasma Sources Science and Technology</i> , 2019, 28, 095009.	1.3	6
71	An approach to study electron and positron scattering from NH_3 and PH_3 using the analytic static potential. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020, 53, 225204.	0.6	6
72	Angular correlation and differential cross sections in $^{\text{H}}(12\text{S}\text{--}32\text{P})$ excitation. <i>Physical Review A</i> , 1994, 50, 2269-2272.	1.0	5

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73	Excitation of the $n^2(n+1)p$ ($l=1, 2$ 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
74	Excitation of atomic oxygen by electron impact. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 3025-3035.	0.6	5
75	Electron impact excitation of tin. European Physical Journal D, 2017, 71, 1.	0.6	5
76	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
77	A new approach to study electron and positron scattering from acetylene. Journal of Electron Spectroscopy and Related Phenomena, 2021, 252, 147118.	0.8	5
78	Electron-impact double-electron excitation and autoionization in alkaline earths. Physical Review A, 1977, 15, 1906-1908.	1.0	4
79	Excitation of the rubidium atom by electrons and positrons: differential cross section and correlation parameters. Journal of Physics B: Atomic, Molecular and Optical Physics, 1988, 21, 4007-4013.	0.6	4
80	Distorted-wave approximation for He (11S \rightarrow 21P) excitation: Angular correlation and differential cross sections. Physical Review A, 1989, 40, 2749-2752.	1.0	4
81	Study of positron-ion collisions: a distorted wave approach. Journal of Physics B: Atomic, Molecular and Optical Physics, 1989, 22, 1253-1261.	0.6	4
82	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
83	Inelastic electron scattering from excited barium atoms. Physical Review A, 2005, 71, .	1.0	4
84	Electron excitation of the $3s^2 3p^2$ states of sulfur. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 4447-4456.	1.0	4
85	Excitation of the $6s^2 6p^1 3s^2$ states of mercury by spin-resolved electron impact. Physical Review A, 2009, 80, .	1.0	4
86	Stokes parameters for the electron-impact excitation of the state of zinc atom. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 641-643.	0.9	4
87	Electron-impact coherence parameters for $4s^2 4p^1$ excitation of zinc. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 085002.	0.6	4
88	Diagnostic of Ar-CO ₂ mixture plasma using a fine-structure resolved collisional radiative model. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2021, 175, 106019.	1.5	4
89	Study of electron-impact excitation of metastable Ne (2p ⁵ 3s3P ²) substates using laser-induced fluorescence. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 4447-4456.	0.6	3
90	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

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91	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
92	Dispersion C_3 coefficients for physisorption of heavy ions and atoms with graphene and carbon nanotubes. Physical Review A, 2021, 104, .	1.0	3
93	Relativistic Electron-Atom Collisions: Recent Progress and Applications. Springer Series on Atomic, Optical, and Plasma Physics, 2013, , 149-166.	0.1	3
94	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
95	Study of elastic scattering of positrons from helium: A two-potential approach. Physical Review A, 1988, 37, 3580-3583.	1.0	2
96	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
97	Excitation from metastable 2^3S states of helium by electrons and positrons. Canadian Journal of Physics, 1996, 74, 521-526.	0.4	2
98	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
99	Excitation of 3^1P and 3^1D states of helium from the ground 1^1S state by electrons and positrons. Pramana - Journal of Physics, 1998, 50, 355-396.	0.9	2
100	Electron impact coherence parameters for the excitation of the $6^1S \rightarrow 6^1P$ transition in barium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 2165-2172.	0.6	2
101	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
102	Excitation of the metastable states of argon. Journal of Physics: Conference Series, 2007, 80, 012019.	0.3	2
103	Electron impact excitation of the $5^3P \rightarrow 5^3P$ levels of xenon from $5^3P \rightarrow 6^3S$ metastable states. Journal of Physics: Conference Series, 2009, 185, 012042.	0.3	2
104	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
105	Study of Electron and Positron Elastic Scattering from Hydrogen Sulphide Using Analytically Obtained Static Potential. Atoms, 2020, 8, 83.	0.7	2
106	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
107	Metastable excitations in heliumlike ions by electrons and positrons: A distorted-wave approach. Physical Review A, 1988, 38, 5415-5418.	1.0	1
108	Excitation of the 3D states of helium by electrons and positrons. Canadian Journal of Physics, 1996, 74, 509-517.	0.4	1

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109	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
110	Study of electron impact excitation of atoms through lasers. Radiation Physics and Chemistry, 2006, 75, 2136-2150.	1.4	1
111	Detailed electron impact fine-structure excitation cross-sections of Kr ⁺ and linear polarization of its subsequently emitted photons. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 253, 106992.	1.1	1
112	Fully relativistic study on electron impact elastic scattering from N q + (q \hat{A} = \hat{A} â€“3), Na + , Ar q + (q \hat{A} = \hat{A} â€“3), $\frac{T_j}{1.0} \frac{E_{TQ} q_0}{1.0} \frac{rgBT}{1.0} / O$		
113	Two-dipole and three-dipole interaction coefficients of group XII elements. Physica B: Condensed Matter, 2022, 624, 413422.	1.3	1
114	Differential Cross Section and Angular Correlation Parameters for Electron Impact Excitation of the 31PState of Magnesium. Journal of the Physical Society of Japan, 1990, 59, 4306-4312.	0.7	1
115	Electron-Impact Excitation of Pb ⁺ . Springer Proceedings in Physics, 2019, , 250-256.	0.1	1
116	Study of electron scattering from CH^+_{4} , NH^+_{3} , H^+_{2}O , NH^+_{4} and H^+_{3}O molecular ions with an analytic static potential approach. European Physical Journal D, 2021, 75, 1.	0.6	1
117	Diagnostics of Ne/Ar mixture plasma using a fine-structure resolved collisional radiative model. Contributions To Plasma Physics, 2022, 62, .	0.5	1
118	Excitation of the lowest autoionizing levels in lithiumlike ions by electron impact. Physical Review A, 1988, 38, 5419-5422.	1.0	0
119	State multipoles and Stokes parameters for the 5 1,3 D 2 excitation of cadmium. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1996, 37, 141-147.	1.0	0
120	Electron-photon coincidence studies on electron impact excitation of lighter neutral atoms. Pramana -Journal of Physics, 1998, 50, 683-698.	0.9	0
121	Electron excitation of the 4s4p ³ P metastable state of calcium. Journal of Physics: Conference Series, 2007, 80, 012020.	0.3	0
122	A theoretical examination of the GOS method for normalizing relative cross section data - the case of indium. Journal of Physics: Conference Series, 2012, 388, 042024.	0.3	0
123	Electron impact excitation from the initially excited cadmium atom. International Journal of Mass Spectrometry, 2014, 362, 9-17.	0.7	0
124	Electron-molecule scattering with analytic static potential approach. EPJ Web of Conferences, 2016, 113, 08017.	0.1	0
125	Electron-impact excitation of W40+â€“W43+ ions: Cross-section and polarization. International Journal of Modern Physics B, 2020, 34, 2050241.	1.0	0
126	Diagnostics of Ar/N2 Mixture Plasma with Reliable Electron Impact Argon Excitation Cross Sections. Springer Proceedings in Physics, 2019, , 106-114.	0.1	0

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127	Electron Excitation Cross Sections of Fine-Structure (5p ⁵ sâ€“5p ⁵ p) Transitions in Xenon. Springer Proceedings in Physics, 2019, , 172-179.	0.1	0
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