

Sabyasachi Kar

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	$P < \text{matrix elements and oscillator strengths for the C 4+ doubly excited states with Coulomb and screened Coulomb (Debye-Hückel) potentials. International Journal of Quantum Chemistry, 2022, 122, e26833.}$	0.9	6
2	Dipole transition matrix elements and oscillator strengths for the C 4+ doubly excited states with Coulomb and screened Coulomb (Debye-Hückel) potentials. International Journal of Quantum Chemistry, 2022, 122, e26833.	1.0	2
3	Autoionization decay and radiative decay for doubly excited 1Po resonance states in H \tilde{a} and Ps \tilde{a} ions. Chemical Physics Letters, 2022, 803, 139873.	1.2	0
4	Doubly excited 1Po resonance states of helium in quantum plasmas. Physics of Plasmas, 2021, 28, .	0.7	7
5	Dipole transition elements and oscillator strengths for the doubly excited states in the helium atom. Chemical Physics Letters, 2021, 774, 138640.	1.2	1
6	Tune-out and magic wavelengths for hydrogenlike and screened hydrogenlike atoms. International Journal of Quantum Chemistry, 2020, 120, e26115.	1.0	4
7	Dynamic Multipole Polarizabilities of Helium and Screened-Helium Atoms. Atoms, 2020, 8, 90.	0.7	2
8	Calculations of Resonance Parameters for the Doubly Excited 1P \tilde{a} States in Ps \tilde{a} Using Exponentially Correlated Wave Functions. Atoms, 2020, 8, 1.	0.7	4
9	Triplet P states in Ps \tilde{a} using correlated exponential wave functions. Chinese Journal of Physics, 2020, 68, 137-146.	2.0	2
10	Critical Stability of the Negatively Charged Positronium-Like Ions with Yukawa Potentials and Varying Z. Atoms, 2019, 7, 53.	0.7	7
11	Critical stability for two-electron ions with Yukawa potentials and varying Z . Physical Review A, 2019, 99, .	1.0	16
12	Polarizability of negatively charged helium-like ions interacting with Coulomb and screened Coulomb potentials. International Journal of Quantum Chemistry, 2018, 118, e25515.	1.0	17
13	Tune-out wavelengths for helium-like ions in plasma environments. Canadian Journal of Physics, 2018, 96, 633-641.	0.4	2
14	Two-photon double-electron D-wave resonant excitation in the positronium negative ion. European Physical Journal D, 2018, 72, 1.	0.6	5
15	Excitons and the Positronium Negative Ion: Comparison of Spectroscopic Properties. , 2018, , .		2
16	Resonances for positronium-helium and positronium-lithium systems in kappa-distribution plasma. Chinese Physics B, 2018, 27, 123402.	0.7	2
17	Potential-screening on atomic wavelengths. Chinese Journal of Physics, 2018, 56, 3085-3098.	2.0	14
18	A new shape resonance in Ps \tilde{a} above the Ps (N = 3) threshold. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 1787-1790.	0.9	5

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19	Borromean Windows for Three-Particle Systems under Screened Coulomb Interactions. Communications in Theoretical Physics, 2017, 67, 542.	1.1	5
20	Dynamic Polarizability for Metastable Helium in Debye Plasmas. Few-Body Systems, 2017, 58, 1.	0.7	9
21	High-lying doubly excited resonances in $\text{Ps } \hat{\nu}$ interacting with screened Coulomb potentials. Chinese Journal of Physics, 2016, 54, 574-581.	2.0	7
22	Resonance States of Two-Electron Ions in Dense Quantum Plasmas. Few-Body Systems, 2016, 57, 1165-1175.	0.7	13
23	Resonant Compton Scattering of Photons by Helium Atoms in Lorentzian Astrophysical Plasmas. Few-Body Systems, 2016, 57, 1139-1145.	0.7	4
24	Tune-out wavelengths for helium atom in plasma environments. Physics of Plasmas, 2016, 23, 082119.	0.7	9
25	Doubly excited 3Pe resonance states of two-electron positive ions in Debye plasmas. Physics of Plasmas, 2015, 22, .	0.7	6
26	Resonant Compton scattering of photons by $\text{He}(1s21S)$ in astrophysical plasmas. Journal of Physics: Conference Series, 2015, 635, 122001.	0.3	1
27	Atomic wavelength in a kappa-distribution plasma. Journal of Physics: Conference Series, 2015, 635, 052019.	0.3	0
28	Energies and transition wavelengths for two-electron atoms under Debye screening. Atomic Data and Nuclear Data Tables, 2015, 102, 42-63.	0.9	19
29	Resonances in positron-hydrogen scattering in dense quantum plasmas. Physics of Plasmas, 2015, 22, .	0.7	25
30	Dynamic polarizability of two-electron ions under Debye screening. International Journal of Quantum Chemistry, 2015, 115, 1573-1579.	1.0	10
31	Doubly Excited Nonautoionizing F and G States of Two-Electron Ions. Few-Body Systems, 2015, 56, 651-657.	0.7	3
32	Doubly-excited $1,3D^{\sup}e^{\sup}$ resonance states of two-electron positive ions $\text{Li}^{\sup}+$ and $\text{Be}^{\sup>2+}$ in Debye plasmas. Physics of Plasmas, 2014, 21, 012105.	0.7	25
33	Dynamic multipole polarizabilities of Li and Na atoms interacting with Debye potentials. Open Physics, 2013, 11, .	0.8	3
34	Dynamic dipole polarizabilities of $\text{H}\hat{\nu}$ and $\text{Ps}\hat{\nu}$ in weakly coupled plasmas. Physics of Plasmas, 2013, 20, .	0.7	25
35	Doubly-Excited States of Two-Electron Systems in Lorentzian Astrophysical Plasmas. Few-Body Systems, 2013, 54, 1911-1919.	0.7	14
36	Quadrupole Oscillator Strengths of Helium Interacting with Debye Potentials. Few-Body Systems, 2013, 54, 1791-1797.	0.7	7

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37	Calculations of dynamic dipole polarizabilities of Li and Na atoms in Debye plasma using the model potential technique. International Journal of Quantum Chemistry, 2013, 113, 1493-1497.	1.0	20
38	Dispersion coefficients for interactions among H, Li, Na, K atoms with Debye-Hückel potentials. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 116, 34-40.	1.1	25
39	Doubly excited states of the hydrogen negative ion and helium atom in astrophysical plasmas. Physics of Plasmas, 2013, 20, .	0.7	30
40	Energies and transition wavelengths for Li II, Be III, B IV, C V embedded in Debye plasmas. Physics of Plasmas, 2012, 19, 033301.	0.7	29
41	Doubly excited non-autoionizing $1,3P_{e}$ and $1,3D_{o}$ states of two-electron highly stripped atoms. Physica Scripta, 2012, 85, 065304.	1.2	4
42	Complex-Scaling Calculations for Doubly Excited Resonances in Ps^{\sim} Interacting with Screened Coulomb (Yukawa) Potentials. Few-Body Systems, 2012, 53, 437-443.	0.7	14
43	Complex-Scaling Treatment for Doubly Excited Inter-Shell Resonances in H^{\sim} Interacting with Screened Coulomb (Yukawa) Potentials. Few-Body Systems, 2012, 53, 445-451.	0.7	12
44	Plasma screening effects on resonant Compton scattering of photons by excited hydrogenic ions in Lorentzian plasmas. European Physical Journal D, 2012, 66, 1.	0.6	18
45	Polarizabilities of Li and Na in Debye plasmas. Physics of Plasmas, 2012, 19, .	0.7	43
46	Dynamic dipole polarizability of the helium atom with Debye-Hückel potentials. Physical Review A, 2012, 86, .	1.0	34
47	Dispersion coefficients for $\text{Li}^{\sim} + \text{H}$ and $\text{Li}^{\sim} + \text{He}$ systems with coulomb and screened coulomb potentials. International Journal of Quantum Chemistry, 2012, 112, 2706-2709.	1.0	2
48	Shape resonance in the Ps^{\sim} system. Physical Review A, 2012, 86, .	1.0	18
49	Borromean windows for H^{\sim} with screened Coulomb potentials. Physical Review A, 2012, 86, .	1.0	11
50	Wavelengths for $2pnp \rightarrow 1Pe^{\sim} 2pnd \rightarrow 1Do$ and $2pnp \rightarrow 3Pe^{\sim} 2pnd \rightarrow 3Do$ transitions in Li II, Be III, B IV, C V using correlated exponential wave functions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 75-81.	1.1	5
51	Dispersion coefficients for interactions between hydrogen and helium atoms with Coulomb and screened Coulomb potentials. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 165004.	0.6	4
52	Resonance states of Ps^{\sim} using correlated wave functions. Computer Physics Communications, 2011, 182, 119-121.	3.0	12
53	Borromean binding in with screened Coulomb potentials. Chemical Physics Letters, 2011, 506, 282-285.	1.2	17
54	Resonances in electron-hydrogen scattering in Debye plasmas. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 015001.	0.6	27

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55	Polarizabilities of two-electron positive ions with screened Coulomb potentials. Physical Review A, 2011, 84, .	1.0	23
56	Doubly excited $1s^2$ states of helium and the hydrogen negative ion interacting with Coulomb and screened Coulomb potentials. Physical Review A, 2011, 83, .	1.0	21
57	Elastic scattering of slow electrons by positronium atoms in weakly-coupled plasmas. Journal of Physics: Conference Series, 2010, 199, 012015.	0.3	3
58	The $1,3D^{\leftarrow}$ resonance states of positronium negative ion using exponential correlated wave functions. European Physical Journal D, 2010, 57, 13-19.	0.6	11
59	Dispersion coefficients for interactions between helium atoms in Debye plasmas. Physical Review A, 2010, 81, .	1.0	18
60	Calculations of D^{\leftarrow} wave bound states and resonance states of the screened helium atom using correlated exponential wave functions. International Journal of Quantum Chemistry, 2010, 110, 993-1002.	1.0	22
61	Comment on $^{\leftarrow}D$ Doubly excited bound and resonance ($3Pe$) states of helium. Physical Review A, 2010, 82, .	1.0	5
62	Strong dc electric-field effects on the lowest doubly excited singlet states of helium using highly correlated exponential wavefunctions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 135003.	0.6	3
63	Autoionizing P^{\leftarrow} and D^{\leftarrow} states of helium with Coulomb and screened Coulomb potentials. Physical Review A, 2010, 81, .	1.0	24
64	Effect of screened Coulomb potentials on the resonance states of two-electron highly stripped atoms using the stabilization method. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 044007.	0.6	45
65	Isotope shift for the $1^{\leftarrow}D^{\leftarrow}$ autodetaching resonance in H^{\leftarrow} and D^{\leftarrow} . Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 055001.	0.6	22
66	Doubly excited P, D and F unnatural parity states of hydrogen negative ion using correlated wavefunctions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 185005.	0.6	16
67	D-Wave Resonances in Three-Body System Ps^{\leftarrow} with Pure Coulomb and Screened Coulomb (Yukawa) Potentials. Few-Body Systems, 2009, 45, 43-49.	0.7	18
68	Doubly Excited $1,3Pe$ Resonance States of the Positronium Negative Ion with Coulomb and Screened Coulomb Potentials. Few-Body Systems, 2009, 46, 173-181.	0.7	18
69	One-photon two-electron transitions for metastable helium. European Physical Journal D, 2009, 53, 303-307.	0.6	5
70	Multipole polarizabilities of helium and the hydrogen negative ion with Coulomb and screened Coulomb potentials. Physical Review A, 2009, 80, .	1.0	27
71	The $1,3F$ resonance states of He using exponential correlated wavefunctions. Journal of Physics: Conference Series, 2009, 194, 042006.	0.3	0
72	Doubly excited $n^2 3Pe$ resonance states of He. Journal of Physics: Conference Series, 2009, 194, 042009.	0.3	0

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73	Effect of Debye plasmas on the resonance states of two-electron highly stripped ions using the stabilization method. Journal of Physics: Conference Series, 2009, 163, 012095.	0.3	1
74	Nuclear mass effect on the $1,3D^e$ resonance states of $H^{\hat{a}}$. Journal of Physics: Conference Series, 2009, 194, 042003.	0.3	2
75	Unnatural parity states of helium with screened Coulomb potentials. International Journal of Quantum Chemistry, 2008, 108, 1491-1504.	1.0	23
76	Dipole polarizabilities of plasma-embedded $Ps^{\hat{a}}$ and $H^{\hat{a}}$ ions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 4253-4256.	0.9	18
77	Oscillator strengths and polarizabilities of the hot-dense plasma-embedded helium atom. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 445-452.	1.1	45
78	Dispersion coefficients for interactions between positronium and light atoms with pure Coulomb and screened Coulomb potentials. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 526-529.	0.6	5
79	Resonance states of three self-gravitating bosons and fermions below the $N=3$ threshold of the two-body subsystem. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 065302.	0.6	3
80	Ratio of double-to-single photoionization cross sections of plasma-embedded helium atoms at x-ray energies. Physical Review A, 2008, 77, .	1.0	15
81	Photodetachment of the hydrogen negative ion in weakly coupled plasmas. Physics of Plasmas, 2008, 15, .	0.7	58
82	Doubly excited $1,3P$ meta-stable bound states and resonance states of helium in weakly coupled plasmas. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 1403-1415.	0.6	36
83	Bound states and resonance states of the plasma-embedded $pp^{1/4}$ molecular ion. Physical Review A, 2007, 75, .	1.0	46
84	Resonance states of three self-gravitating bosons and fermions. Physical Review A, 2007, 76, .	1.0	9
85	The doubly-excited $2p^2^1D$ resonance state of the helium atom in hot-dense plasmas. Physica Scripta, 2007, 75, 13-18.	1.2	11
86	Effect of Debye plasmas on the dispersion coefficients C_6 for interactions among H and He atoms. Chemical Physics Letters, 2007, 449, 246-248.	1.2	10
87	Ground states and resonance states of $Ps^{\hat{a}}$ and He interacting with screened Coulomb (Yukawa) potentials. Nuclear Physics A, 2007, 790, 804c-807c.	0.6	6
88	Transition wavelengths for helium atom in weakly coupled hot plasmas. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 107, 315-322.	1.1	21
89	Bound states and dipole polarizability of hydrogen molecular ion H^+2 in weakly coupled hot plasmas. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 368, 476-479.	0.9	28
90	Bound state energies of three self-gravitating Bose-Einstein condensates. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 370, 306-309.	0.9	8

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91	Bound D-states of helium atom under Debye screening. International Journal of Quantum Chemistry, 2007, 107, 353-358.	1.0	30
92	Bound states of helium atom in dense plasmas. International Journal of Quantum Chemistry, 2006, 106, 814-822.	1.0	86
93	Positron annihilation in the dense plasma-embedded Ps^* . Chemical Physics Letters, 2006, 424, 403-408.	1.2	44
94	Doubly excited inter-shell P-wave resonances of helium in weakly coupled plasmas. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 2445-2453.	0.6	37
95	Doubly excited $1,3$ resonance states of Ps^* in weakly coupled plasmas. Physical Review A, 2006, 73, .	1.0	48
96	Doubly-excited $2s21\text{Se}$ resonance state of helium embedded in Debye plasmas. Chemical Physics Letters, 2005, 402, 544-548.	1.2	76
97	Electron affinity of the hydrogen atom and a resonance state of the hydrogen negative ion embedded in Debye plasmas. New Journal of Physics, 2005, 7, 141-141.	1.2	97
98	S-wave resonances in the positron-hydrogen system with screened Coulomb potentials. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, 3299-3310.	0.6	34
99	Ground state and resonance state of Ps^* in plasmas with various Debye lengths. Physical Review A, 2005, 71, .	1.0	63
100	Doubly excited $2s2p$ $1,3$ resonance states of helium in dense plasmas. Physical Review A, 2005, 72, .	1.0	54
101	S-wave resonances in $e^+\text{He}$ scattering below the Ps ($n = 2$) excitation threshold. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 3177-3186.	0.6	66
102	Autoionizing 1Se resonance of H^* in Debye plasma environments. Physical Review E, 2004, 70, 066411.	0.8	69
103	Correlation Functions of Types $\exp(-1/4r^{12})$ and $1/(a+br^{12})$ for Normal Two-Electron Systems. Physica Scripta, 2003, 67, 7-22.	1.2	4
104	Positronium formation in hydrogen below 10.2 eV. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 2379-2382.	0.6	3
105	Positronium formation in hydrogen at intermediate energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, L165-L170.	0.6	6
106	Positronium formation in positron-hydrogen scattering using Schwinger's principle. Physical Review A, 2000, 62, .	1.0	15
107	Positronium formation in hydrogen below 10.2 eV. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 2297-2308.	0.6	10
108	Multichannel Schwinger's principle for rearrangement collisions: Positronium formation in positron-hydrogen collisions. Physical Review A, 1999, 59, 1913-1925.	1.0	16

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109	On the study of the critical angle in elastic positron-hydrogen collisions. Nuclear Instruments & Methods in Physics Research B, 1998, 143, 32-36.	0.6	4
110	Monte-Carlo optimization of correlated helium wave function. Pramana - Journal of Physics, 1998, 50, 35-43.	0.9	2
111	Monte Carlo optimisation of correlated wave functions for normal two-electron systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 240, 301-305.	0.9	3
112	Correlated basis functions for studies on positron collisions using Schwinger's principle. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, L627-L633.	0.6	10