

Sabyasachi Kar

List of Publications by Year in descending order

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112
times ranked

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#	ARTICLE	IF	CITATIONS
1	Electron affinity of the hydrogen atom and a resonance state of the hydrogen negative ion embedded in Debye plasmas. <i>New Journal of Physics</i> , 2005, 7, 141-141.	1.2	97
2	Bound states of helium atom in dense plasmas. <i>International Journal of Quantum Chemistry</i> , 2006, 106, 814-822.	1.0	86
3	Doubly-excited $2s2p$ resonance state of helium embedded in Debye plasmas. <i>Chemical Physics Letters</i> , 2005, 402, 544-548.	1.2	76
4	Autoionizing $1s$ resonance of H^- in Debye plasma environments. <i>Physical Review E</i> , 2004, 70, 066411.	0.8	69
5	S-wave resonances in e^+He scattering below the Ps ($n = 2$) excitation threshold. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2004, 37, 3177-3186.	0.6	66
6	Ground state and resonance state of Ps^- in plasmas with various Debye lengths. <i>Physical Review A</i> , 2005, 71, .	1.0	63
7	Photodetachment of the hydrogen negative ion in weakly coupled plasmas. <i>Physics of Plasmas</i> , 2008, 15, .	0.7	58
8	Doubly excited $2s2p$ $1,3$ resonance states of helium in dense plasmas. <i>Physical Review A</i> , 2005, 72, .	1.0	54
9	Doubly excited $1,3$ resonance states of Ps^- in weakly coupled plasmas. <i>Physical Review A</i> , 2006, 73, .	1.0	48
10	Bound states and resonance states of the plasma-embedded $pp^{1/4}$ molecular ion. <i>Physical Review A</i> , 2007, 75, .	1.0	46
11	Oscillator strengths and polarizabilities of the hot-dense plasma-embedded helium atom. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2008, 109, 445-452.	1.1	45
12	Effect of screened Coulomb potentials on the resonance states of two-electron highly stripped atoms using the stabilization method. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2009, 42, 044007.	0.6	45
13	Positron annihilation in the dense plasma-embedded Ps^- . <i>Chemical Physics Letters</i> , 2006, 424, 403-408.	1.2	44
14	Polarizabilities of Li and Na in Debye plasmas. <i>Physics of Plasmas</i> , 2012, 19, .	0.7	43
15	Doubly excited inter-shell P-wave resonances of helium in weakly coupled plasmas. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2006, 39, 2445-2453.	0.6	37
16	Doubly excited $1,3P$ meta-stable bound states and resonance states of helium in weakly coupled plasmas. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2007, 40, 1403-1415.	0.6	36
17	S-wave resonances in the positron-hydrogen system with screened Coulomb potentials. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2005, 38, 3299-3310.	0.6	34
18	Dynamic dipole polarizability of the helium atom with Debye- $H^{1/4}$ ckel potentials. <i>Physical Review A</i> , 2012, 86, .	1.0	34

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19	Bound D-states of helium atom under Debye screening. International Journal of Quantum Chemistry, 2007, 107, 353-358.	1.0	30
20	Doubly excited states of the hydrogen negative ion and helium atom in astrophysical plasmas. Physics of Plasmas, 2013, 20, .	0.7	30
21	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
22	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
23	Multipole polarizabilities of helium and the hydrogen negative ion with Coulomb and screened Coulomb potentials. Physical Review A, 2009, 80, .	1.0	27
24	Resonances in electron-hydrogen scattering in Debye plasmas. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 015001.	0.6	27
25	Dynamic dipole polarizabilities of H ⁺ and Ps ⁻ in weakly coupled plasmas. Physics of Plasmas, 2013, 20, .	0.7	25
26	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
27	Doubly-excited $1,3D^e$ resonance states of two-electron positive ions Li ⁺ and Be ²⁺ in Debye plasmas. Physics of Plasmas, 2014, 21, 012105.	0.7	25
28	Resonances in positron-hydrogen scattering in dense quantum plasmas. Physics of Plasmas, 2015, 22, .	0.7	25
29	Doubly excited nonautoionizing P^c states of helium with screened Coulomb potentials. International Journal of Quantum Chemistry, 2008, 108, 1491-1504.	1.0	24
30	Unnatural parity states of helium with screened Coulomb potentials. International Journal of Quantum Chemistry, 2008, 108, 1491-1504.	1.0	23
31	Polarizabilities of two-electron positive ions with screened Coulomb potentials. Physical Review A, 2011, 84, .	1.0	23
32	Isotope shift for the $1D^e$ autodetaching resonance in H ⁺ and D ⁺ . Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 055001.	0.6	22
33	Calculations of 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
34	Transition wavelengths for helium atom in weakly coupled hot plasmas. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 107, 315-322.	1.1	21
35	Doubly excited $1,3D^e$ states of helium and the hydrogen negative ion interacting with Coulomb and screened Coulomb potentials. Physical Review A, 2011, 83, .	1.0	21
36	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

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37	Energies and transition wavelengths for two-electron atoms under Debye screening. Atomic Data and Nuclear Data Tables, 2015, 102, 42-63.	0.9	19
38	Dipole polarizabilities of plasma-embedded $\text{Ps}^{\hat{+}}$ and $\text{H}\hat{+}$ ions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 4253-4256.	0.9	18
39	D-Wave Resonances in Three-Body System $\text{Ps}^{\hat{+}}$ with Pure Coulomb and Screened Coulomb (Yukawa) Potentials. Few-Body Systems, 2009, 45, 43-49.	0.7	18
40	Doubly Excited $1,3\text{P e}$ Resonance States of the Positronium Negative Ion with Coulomb and Screened Coulomb Potentials. Few-Body Systems, 2009, 46, 173-181.	0.7	18
41	Dispersion coefficients for interactions between helium atoms in Debye plasmas. Physical Review A, 2010, 81, .	1.0	18
42	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
43	Shape resonance in the $\text{Ps}^{\hat{+}}$ system. Physical Review A, 2012, 86, .	1.0	18
44	Borromean binding in with screened Coulomb potentials. Chemical Physics Letters, 2011, 506, 282-285.	1.2	17
45	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
46	Multichannel Schwinger's principle for rearrangement collisions: Positronium formation in positron-hydrogen collisions. Physical Review A, 1999, 59, 1913-1925.	1.0	16
47	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
48	Critical stability for two-electron ions with Yukawa potentials and varying Z . Physical Review A, 2019, 99, .	1.0	16
49	Positronium formation in positron-hydrogen scattering using Schwinger's principle. Physical Review A, 2000, 62, .	1.0	15
50	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
51	Complex-Scaling Calculations for Doubly Excited Resonances in $\text{Ps}^{\hat{+}}$ Interacting with Screened Coulomb (Yukawa) Potentials. Few-Body Systems, 2012, 53, 437-443.	0.7	14
52	Doubly-Excited States of Two-Electron Systems in Lorentzian Astrophysical Plasmas. Few-Body Systems, 2013, 54, 1911-1919.	0.7	14
53	Potential-screening on atomic wavelengths. Chinese Journal of Physics, 2018, 56, 3085-3098.	2.0	14
54	Resonance States of Two-Electron Ions in Dense Quantum Plasmas. Few-Body Systems, 2016, 57, 1165-1175.	0.7	13

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55	Resonance states of $\text{Ps}^{\hat{+}}$ using correlated wave functions. Computer Physics Communications, 2011, 182, 119-121.	3.0	12
56	Complex-Scaling Treatment for Doubly Excited Inter-Shell Resonances in $\text{H}\hat{+}$ Interacting with Screened Coulomb (Yukawa) Potentials. Few-Body Systems, 2012, 53, 445-451.	0.7	12
57	The doubly-excited $2p^2\hat{+}1$ Deresonance state of the helium atom in hot-dense plasmas. Physica Scripta, 2007, 75, 13-18.	1.2	11
58	The $1,3D\hat{-}$ resonance states of positronium negative ion using exponential correlated wave functions. European Physical Journal D, 2010, 57, 13-19.	0.6	11
59	Borromean windows for $\text{H}^{\hat{+}}$ with screened Coulomb potentials. Physical Review A, 2012, 86, .	1.0	11
60	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
61	Positronium formation in hydrogen below 10.2 eV. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 2297-2308.	0.6	10
62	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
63	Dynamic polarizability of two-electron ions under Debye screening. International Journal of Quantum Chemistry, 2015, 115, 1573-1579.	1.0	10
64	Resonance states of three self-gravitating bosons and fermions. Physical Review A, 2007, 76, .	1.0	9
65	Tune-out wavelengths for helium atom in plasma environments. Physics of Plasmas, 2016, 23, 082119.	0.7	9
66	Dynamic Polarizability for Metastable Helium in Debye Plasmas. Few-Body Systems, 2017, 58, 1.	0.7	9
67	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
68	Quadrupole Oscillator Strengths of Helium Interacting with Debye Potentials. Few-Body Systems, 2013, 54, 1791-1797.	0.7	7
69	High-lying doubly excited resonances in $\text{Ps}^{\hat{+}}$ interacting with screened Coulomb potentials. Chinese Journal of Physics, 2016, 54, 574-581.	2.0	7
70	Critical Stability of the Negatively Charged Positronium-Like Ions with Yukawa Potentials and Varying Z. Atoms, 2019, 7, 53.	0.7	7
71	Doubly excited $1P\hat{o}$ resonance states of helium in quantum plasmas. Physics of Plasmas, 2021, 28, .	0.7	7
72	Positronium formation in hydrogen at intermediate energies. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, L165-L170.	0.6	6

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73	Ground states and resonance states of Ps^{\sim} and He interacting with screened Coulomb potentials. Nuclear Physics A, 2007, 790, 804c-807c.	0.6	6
74	Doubly excited 3Pe resonance states of two-electron positive ions in Debye plasmas. Physics of Plasmas, 2015, 22, .	0.7	6
75	Resonance states of exponential Ps^{\sim} above the $\text{Ps}(N=3)$ threshold. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 1787-1790.	0.9	6
76	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
77	One-photon two-electron transitions for metastable helium. European Physical Journal D, 2009, 53, 303-307.	0.6	5
78	Comment on "Doubly excited bound and resonance (3Pe) states of helium". Physical Review A, 2010, 82, .	1.0	5
79	Wavelengths for $2pnp\ 1Pe^{\sim}2pnd\ 1Do$ and $2pnp\ 3Pe^{\sim}2pnd\ 3Do$ 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
80	Borromean Windows for Three-Particle Systems under Screened Coulomb Interactions. Communications in Theoretical Physics, 2017, 67, 542.	1.1	5
81	Two-photon double-electron D-wave resonant excitation in the positronium negative ion. European Physical Journal D, 2018, 72, 1.	0.6	5
82	shape resonance in Ps^{\sim} above the $\text{Ps}(N=3)$ threshold. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 1787-1790.	0.9	5
83	On the study of the critical angle in elastic positronium-hydrogen collisions. Nuclear Instruments & Methods in Physics Research B, 1998, 143, 32-36.	0.6	4
84	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
85	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
86	Doubly excited non-autoionizing $1,3P^{\sim}$ and $1,3D^{\sim}$ states of two-electron highly stripped atoms. Physica Scripta, 2012, 85, 065304.	1.2	4
87	Resonant Compton Scattering of Photons by Helium Atoms in Lorentzian Astrophysical Plasmas. Few-Body Systems, 2016, 57, 1139-1145.	0.7	4
88	Tune-out and magic wavelengths for hydrogenlike and screened hydrogenlike atoms. International Journal of Quantum Chemistry, 2020, 120, e26115.	1.0	4
89	Calculations of Resonance Parameters for the Doubly Excited $1P^{\sim}$ States in Ps^{\sim} Using Exponentially Correlated Wave Functions. Atoms, 2020, 8, 1.	0.7	4
90	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

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91	Positronium formation in hydrogen below 10.2 eV. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 2379-2382.	0.6	3
92	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
93	Elastic scattering of slow electrons by positronium atoms in weakly-coupled plasmas. Journal of Physics: Conference Series, 2010, 199, 012015.	0.3	3
94	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
95	Dynamic multipole polarizabilities of Li and Na atoms interacting with Debye potentials. Open Physics, 2013, 11, .	0.8	3
96	Doubly Excited Nonautoionizing F and G States of Two-Electron Ions. Few-Body Systems, 2015, 56, 651-657.	0.7	3
97	Monte-Carlo optimization of correlated helium wave function. Pramana - Journal of Physics, 1998, 50, 35-43.	0.9	2
98	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
99	Dispersion coefficients for $Li^+ + H$ and $Li^+ + He$ systems with coulomb and screened coulomb potentials. International Journal of Quantum Chemistry, 2012, 112, 2706-2709.	1.0	2
100	Tune-out wavelengths for helium-like ions in plasma environments. Canadian Journal of Physics, 2018, 96, 633-641.	0.4	2
101	Excitons and the Positronium Negative Ion: Comparison of Spectroscopic Properties. , 2018, , .		2
102	Resonances for positronium-helium and positronium-lithium systems in kappa-distribution plasma. Chinese Physics B, 2018, 27, 123402.	0.7	2
103	Dynamic Multipole Polarizabilities of Helium and Screened-Helium Atoms. Atoms, 2020, 8, 90.	0.7	2
104	Triplet P states in $Ps^{\hat{a}}$ using correlated exponential wave functions. Chinese Journal of Physics, 2020, 68, 137-146.	2.0	2
105	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
106	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
107	Resonant Compton scattering of photons by $He(1s21S)$ in astrophysical plasmas. Journal of Physics: Conference Series, 2015, 635, 122001.	0.3	1
108	Dipole transition elements and oscillator strengths for the doubly excited states in the helium atom. Chemical Physics Letters, 2021, 774, 138640.	1.2	1

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109	The 1,3F resonance states of He using exponential correlated wavefunctions. Journal of Physics: Conference Series, 2009, 194, 042006.	0.3	0
110	Doubly excited $n^2\ 3P$ resonance states of He. Journal of Physics: Conference Series, 2009, 194, 042009.	0.3	0
111	Atomic wavelength in a kappa-distribution plasma. Journal of Physics: Conference Series, 2015, 635, 052019.	0.3	0
112	Autoionization decay and radiative decay for doubly excited $1P_o$ resonance states in $H\hat{a}^+$ and $Ps\hat{a}^+$ ions. Chemical Physics Letters, 2022, 803, 139873.	1.2	0