

## **DR. SUNNY AGGARWAL**

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### **Research Papers:**

1. "Photoionization study of Ne-like K9+, Ca10+, Sc11+, Ti12+, V13+, Cr14+, Mn15+, and Fe16+ ions using the screening constant by unit nuclear charge method"

*Radiation Physics and Chemistry* 125: 50-55. (Scopus, Science citation index, web of science)

#### **Link to the article/paper**

<https://www.sciencedirect.com/science/article/abs/pii/S0969806X16300937>

2. "MCDHF calculations and study of plasma parameters for Li-like ions"

*Radiation Physics and Chemistry* 123: 46-54. (Scopus, Science citation index, web of science)

#### **Link to the article/paper**

<https://www.sciencedirect.com/science/article/abs/pii/S0969806X16300615>

3. "Extreme ultraviolet and soft x-ray spectral lines in Rb XXIX"

*Chinese Physics B* 25(3): 033201. (Scopus, web of science)

#### **Link to the article/paper**

[http://cpb.iphy.ac.cn/article/2016/1815/cpb\\_25\\_3\\_033201.html](http://cpb.iphy.ac.cn/article/2016/1815/cpb_25_3_033201.html)

4. "Calculation of Energy Levels, Lifetimes and Radiative Data for La XXIX to Sm XXXIV"

*Atomic Data and Nuclear Data Tables* 107: 406-456. (Scopus, Science citation index, web of science)

#### **Link to the article/paper**

<https://www.sciencedirect.com/science/article/abs/pii/S0092640X15000315>

5. "Energy Levels and Radiative Transition Rates for Ba XLVIII"

*Atomic Data and Nuclear Data Tables* 107: 367-405. (Scopus, Science citation index, web of science)

#### **Link to the article/paper**

<https://www.sciencedirect.com/science/article/abs/pii/S0092640X15000327>

6. "Energy levels, lifetimes and radiative data of Ba XXVI"

*Atomic Data and Nuclear Data Tables* 109-110: 339-351. (Scopus, Science citation index, web of science)

#### **Link to the article/paper**

<https://www.sciencedirect.com/science/article/abs/pii/S0092640X16000036>

7. "Analysis of discrepancy in previously published excitation energies of Ne-like ions from two independent codes and atomic data of Rb XXVIII and Ba XLVII"

*Journal of Electron Spectroscopy and Related Phenomena* 239: 146905. (Scopus, Science citation index)

#### **Link to the article/paper**

<https://www.sciencedirect.com/science/article/abs/pii/S0368204819302300>

8. "Energy levels and radiative rates for Ne-like ions from Cu to Ga"

*Pramana* 89(5): 79-89. (UGC care list, Scopus, web of science)

#### **Link to the article/paper**

<https://www.ias.ac.in/describe/article/pram/089/05/0079>

9. "Theoretical study of energy levels and radiative properties of Be-like W70+"

*Journal of Electron Spectroscopy and Related Phenomena* 229:124-131. (Scopus, Science citation index)

**Link to the article/paper**

<https://www.sciencedirect.com/science/article/abs/pii/S0368204818301786>

10. “Multi-configuration Dirac–Hartree–Fock (MCDHF) calculations for Ni XXV”  
*Radiation Physics and Chemistry* 144:426-433. (Scopus, Science citation index, web of science)

**Link to the article/paper**

<https://www.sciencedirect.com/science/article/abs/pii/S0969806X17309830>

11. “spectroscopic study of EUV and SXR transitions of Cs XXV”  
*Canadian Journal of Physics* 96(88): 871-877. (Scopus, Science citation index)

**Link to the article/paper**

<https://cdnsciencepub.com/doi/full/10.1139/cjp-2017-0359>

12. “Atomic data for Ne-like ions useful in plasma diagnostic”  
*Canadian Journal of Physics* 96(1): 36-54. (Scopus, Science citation index)

**Link to the article/paper**

<https://cdnsciencepub.com/doi/full/10.1139/cjp-2017-0031>

13. “L-shell spectroscopy of neon and fluorine like copper ions from laser produced plasma”  
*Physics of Plasmas* 26(2):1-13. ( Scopus)

**Link to the article/paper**

<https://aip.scitation.org/doi/full/10.1063/1.5051758>

14. “Energy Levels and Radiative Properties of Cu-like Tungsten”  
*Journal of Atomic, Molecular, Condensed Matter and Nano Physics* 7(2): 115-131.  
(UGC care list)

**Link to the article/paper**

<https://www.rgnpublications.com/journals/index.php/jamcn/article/view/1455>

15. “Extended Atomic Structure Calculations for W11+ and W13+”  
*Atoms* 8(4): 92. (Scopus, Web of science)

**Link to the article/paper**

<https://www.mdpi.com/2218-2004/8/4/92>

16. “Determination of atomic properties in the oxygen isoelectronic sequence”  
*Results in Physics* 22. (Scopus, SCI index)

**Link to the article/paper**

<https://www.sciencedirect.com/science/article/pii/S2211379721001005>

17. “Energy Levels and Oscillator Strengths of Ca V”  
*Journal of Atomic, Molecular, Condensed Matter and Nano Physics* 8(1): 45-61.  
(Crossref)

**Link to the article/paper**

<https://www.rgnpublications.com/journals/index.php/jamcn/article/view/1482>

18. “Energy levels, transition data and collisional excitation cross-section of Sn3+ and Sn4+ ions”  
*Journal of Electron Spectroscopy and Related Phenomena* 244. (Scopus, Science citation index)

**Link to the article/paper**

<https://www.sciencedirect.com/science/article/abs/pii/S0368204820300505>

19. “Atomic Structure Calculations and Study of Line Intensity Ratio for Kr XXIV”

*Canadian Journal of Physics* 94(8): 712-723. (Scopus, Science citation index)

**Link to the article/paper**

<https://cdnsciencepub.com/doi/abs/10.1139/cjp-2016-0167>

20. “Multiconfiguration Dirac–Fock atomic structure calculations for C II-like tungsten”  
*Canadian Journal of Physics* 92(3): 177-183.

**Link to the article/paper**

[https://cdnsciencepub.com/doi/10.1139/cjp-2013-0348?\\_hstc=74603853.73bd3bee6fa385653ecd7c9674ba06f0.1601078400142.1601078400](https://cdnsciencepub.com/doi/10.1139/cjp-2013-0348?_hstc=74603853.73bd3bee6fa385653ecd7c9674ba06f0.1601078400142.1601078400)

[\\_hssc=74603853.1.1601078400145&\\_hsfp=381497236](https://cdnsciencepub.com/doi/10.1139/cjp-2013-0348?_hstc=74603853.73bd3bee6fa385653ecd7c9674ba06f0.1601078400142.1601078400&_hssc=74603853.1.1601078400145&_hsfp=381497236)

21. “Relativistic atomic data for W XLVII”  
*Chinese Physics B* 24(5) 1-8.

**Link to the article/paper**

<file:///C:/Users/AJIT%20BANSAL/Downloads/Relativistic%20atomic%20data%20for%20W%20XLVII.pdf>

22. “Multiconfiguration Dirac–Fock energy levels and radiative rates for Ni XXI”  
*Canadian Journal of Physics* 92(11): 1285-1296. (Scopus, Science citation index)

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<https://cdnsciencepub.com/doi/abs/10.1139/cjp-2013-0454>

23. “Reply to Comment on “Multiconfiguration Dirac–Fock energy levels and radiative rates for Br-like tungsten”  
*Canadian Journal of Physics* 92(6): 551-552. (Scopus, Science citation index)

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24. “Collisional Excitations of Fluorine Like Tungsten using relativistic data Atomic R-Matrix Method”.  
*Journal of Atomic, Molecular, Condensate and Nano Physics* 2 (1): 1-14.

**Link to the article/paper**

<https://www.rgnpublications.com/journals/index.php/jamcn/article/view/269>

25. “Energy Levels and Radiative Transition Rates for Ba XLVIII”.  
*Atomic Data and Nuclear Data Table* 107:367-405.

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<file:///C:/Users/AJIT%20BANSAL/Downloads/j.adt.2015.07.002.pdf>

26. “R-Matrix Calculations of Photoionization Cross Section of Ne-like Tungsten”.  
*Canadian Journal of Physics* 93 (11): 1221-1226. (Scopus, Science citation index)

**Link to the article/paper**

<https://cdnsciencepub.com/doi/10.1139/cjp-2015-0093>

27. “Extreme Ultraviolet and X-ray Transition Wavelengths in Rb XXIV”  
*Chinese Phys. B* 24(10): 103202

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<http://cpb.iphy.ac.cn/EN/abstract/abstract117905.shtml>

28. “Atomic Structure Calculations for F-Like Tungsten”.  
*Chinese Physics B* 23(9): 093203.

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<https://ui.adsabs.harvard.edu/abs/2014ChPhB..23i3203S/abstract>

29. “Breit–Pauli Atomic Structure Calculations for Fe XI”.  
*Atomic Data and Data Tables* 99 (6):704-732.

**Link to the article/paper**

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30. “Level Energies, Lifetimes and Radiative rates in the 4p44d Configurations of Bromine-Like Ions”  
*Phy. Physica Scripta* 88 (3): 035301.

**Link to the article/paper**

<https://www.semanticscholar.org/paper/Level-energies%2C-lifetimes-and-radiative-rates-in-of-Singh-Agarwal/6396831b58e249e05d437446bccf7040f8aeeec58>

31. “New Atomic data for KrXXXV useful in Fusion Plasma”.  
*Chinese Physics B* 22(3): 033201.

**Link to the article/paper**

<http://cpb.iphy.ac.cn/CN/Y2013/V22/I3/33201>

32. “Multiconfigurational Dirac-Fock Energy Levels and Radiative Rates for Br-Like Tungsten”.  
*Canadian Journal of Physics* 91(5): 394-400. (Scopus, Science citation index)

**Link to the article/paper**

<https://cdnsciencepub.com/doi/abs/10.1139/cjp-2013-0013>

33. “Photoionization Cross-Section of Chlorine like Iron”.  
*Journal Of Astrophysic and Astronomy* 33(3): 291-301.

**Link to the article/paper**

<https://www.ias.ac.in/article/fulltext/joaa/033/03/0291-0301>

34. “Breit-Pauli Atomic Structure Calculations for Sulphur like Titanium”.  
*Canadian Journal of Physics* 90(9): 833-847. (Scopus, Science citation index)

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[https://www.researchgate.net/publication/237202857\\_Breit-Pauli\\_atomic\\_structure\\_calculations\\_for\\_sulphur-like\\_titanium](https://www.researchgate.net/publication/237202857_Breit-Pauli_atomic_structure_calculations_for_sulphur-like_titanium)

35. “Photoionization oh Al-like si using the R-Matrix Method”.  
*Canadian Journal of Physics* 89: 1119-1126. (Scopus, Science citation index)

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36. “Atomic Structure Calculations for Br-like Ions”.  
*Canadian Journal of Physics* 93(5):487-495. (Scopus, Science citation index)
37. “Energy Levels and Radiative Transtiton Rates for GeXXXI, ASXXXII, and SeXXXIII”.  
*Atomic Data and Nuclear Data Tables* 100 (4): 859-985.
38. “Atomic Data for He-Like Tungsten”.  
*Journal of Atomic, Molecular, Condensate and Nano Physics* 1(1):19-30.
39. “Atomic Structure Calculations Useful for Fusion and Astrophysics New Trends”.  
*Atomic and Molecular Physics*,0(0): n.p
40. “Atomic Structure Calaculations and Identification of EUV and SXR Spectral Lines in SrXXX”.  
*Journal of Quantitative Spectroscopy and Radiative Transfer* 161: 157-170