



## BIBLIOGRAPHY

Sultana N. Nahar

### vi) Publications in scientific research

(Complete references: <http://www.astronomy.ohio-state.edu/~nahar/publications.html>)

#### 1. SCIENTIFIC PUBLICATIONS:

1. **Textbook: "Atomic Astrophysics and Spectroscopy": 1,**
2. **Book editor: "Photoionization of Atoms" 1,**
3. **e-Magazine editor: "An-Nisa" for women in STEM: 3 Vol,**
4. **Newsletter editor: "International Society of Muslim Women in Science": 14**
5. **Publications in Scientific Research:~ 201**

#### i) **Research Book Chapters : 6**

- ii) Refereed Journals: ~ 145,
- iii) Invited refereed reviews - 20,
- iv) Conference proceedings - 20,
- v) Invited articles - 5
- vi) Technical reports - 5

- **In Progress:** 5 in preparation

• **Dedication articles for scientists:** 5

• **Featured in Articles in Science:** 35

#### 4. PUBLICATIONS IN STEM RESEARCH AND EDUCATION: 44 (total)

#### i) Book Chapters - 1

- ii) Long reports (US Department of State Long Report, ISMWS): 2
- iii) News articles in APS newsletters (Main, FIP,CSWP), An-Nisa: 31
- vii) Outreach and Engagement Publications at OSU Knowledge Bank: 10

• **Featured in Articles for STEM Education and Research: 11**

#### 1) **TEXTBOOK:**

1. *Atomic Astrophysics and Spectroscopy*, Anil K. Pradhan and Sultana N. Nahar (Cambridge University Press, 2011)

#### 2) **EDITOR OF BOOKS: 1**

1. **"Photoionization of Atoms"**, A special issue book of journal *Atoms* ( Editors: Sultana N Nahar and Guillermo Hinojosa, Publisher: MDPI, Basel, Switzerland 2024)  
(<https://www.mdpi.com/books/reprint/10231-photoionization-of-atoms>)

#### 3) **BOOK CHAPTERS: 6**

1. Chapter 9 (p.123 - 132): **"AHMED ZEWAİL - OUR PRIDE"**, Sultana N. Nahar, in **"The Brilliant Zewail"** (Editor: Lotfia El-Nadi, World Scientific publication 2019)

2. Chapter 15: “Astronomy and Cancer Research: X-Rays and Nanotechnology From Black Holes to Cancer Therapy”, A.K. Pradhan and S.N. Nahar, Proceedings of 3rd International Conference on Current Development in Atomic, Molecular, Optical and Nano Physics, University of Delhi, Delhi, India, December 14-16, 2011 in *New Trends in Atomic & Molecular Physics Advanced Technological Applications*, Springer Series on Atomic, Optical, and Plasma Physics 76 (Editor Man Mohan, Springer-Verlag, Berlin Heidelberg, 2013, DOI 10.1007/978-3-642-38167-6\_1), p. 253-265
3. Chapter 7: “The Iron Project: Photoionization and Photoexcitation of Fe XVII in Solar Opacity”, S.N. Nahar, Proceedings of the 3rd International Conference on Current Development in Atomic, Molecular, Optical and Nano Physics, University of Delhi, India, December 14-16, 2011 *New Trends in Atomic & Molecular Physics - Advanced Technological Applications*, Springer Series on Atomic, Optical, and Plasma Physics 76 (Ed. Man Mohan, Springer-Verlag, Berlin Heidelberg, 2013, DOI 10.1007/978-3-642-38167-6\_1), p. 115-132
4. Chapter 9: “Resonant theranostics: A New Nano-Biotechnological Method for Cancer Treatment Using X-ray Spectroscopy of Nanoparticles”, S.N. Nahar, A.K. Pradhan, M. Montenegro, in *Simulations in Nanobiotechnology*, CRC Press - Taylor & Francis Group (Ed. Kilho Eom, 2011), p.305-330
5. Chapter 3: “Solar Irradiance of the Earth’s Atmosphere”, S.N. Nahar, in *Climate Change and Food Security in South Asia* (UN sponsored, Eds. R. Lal, M.V.K. Sivakumar, S.M.A. Faiz, A.H.M.M. Rahman, K.R. Islam, Springer, 2011), p. 31-42
6. Chapter: “Mohabishshal (The Universe)” (in Bengali), S.N. Nahar, in *Ekushe Shotoker Jatisbiggan (Astronomy of 21st Century)*, celebrating the International Year of Astronomy 2009 in Bangladesh (eds. A.M. Harun-ar-Rashid, M. Hasan, Tramrolipi, Bangladesh, 2010), p.58-70 (No 39 in <http://www.science.gov/topicpages/s/star+study+nct00237913.html>)

#### 4) REFEREED SCIENTIFIC JOURNALS:~ 145

##### 1. IN PREPARATION:

1. ”Electron-Iron recombination of Ar XVI - Ar XVIII”, Sultana N. Nahar
2. ”Collision strengths for P II”, Sultana N. Nahar
3. ”Spectral feature of Ti I and Ti III with a diagnostic line of Ti I”, Sultana N. Nahar and Faysal Mehedi
4. ”Photoionization of Ca III”, Sultana N Nahar

##### IN PRESS:

1. ”Spectral features of photoionization of ground and excited levels of P I”, Sultana N Nahar, Can.J.Phys. (in press, 2025)

##### PUBLISHED:

##### PHOTOIONIZATION, ELECTRON-ION RECOMBINATION, OPACITY:

2. "Energy levels and characteristic features in photoionization of Cl III using the R-matrix method", S.N. Nahar, *Can. J. Phys.* 103: 89-99 (2025, [dx.doi.org/10.1139/cjp-2023-0320](https://dx.doi.org/10.1139/cjp-2023-0320), online 2024, <https://cdnsiencepub.com/doi/10.1139/cjp-2023-0320>)  
- Invited article in issue "Bound States and Quantum Correlations" in honor of Prof. A. Ravi P. Rau: Part I", Vol 103, Number 1, January 2025
3. "Spectra of phosphorus ions for astrophysical modeling: P I - P XV", Sultana N Nahar and Bilal Shafique, *Can. J. Phys.* 103: 100-130 (2025, [dx.doi.org/10.1139/cjp-2023-0272](https://dx.doi.org/10.1139/cjp-2023-0272), <https://cdnsiencepub.com/doi/10.1139/cjp-2023-0272>, online 2024)  
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3. Chief Editor of magazine "An-Nisa" for women in STEM and author of the foundation article "International Society of Muslim Women in Science", S.N. Nahar, p.9, 2022 (published by the Indo-US STEM Education and Research Center of OSU and AMU, and International Society of Muslim Women in Science, March 2022)

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5. "International Women's Day 2024", S. N. Nahar, An-Nisa 3, 6-7 (2024)
6. "Ohio Sangbad" (Bengali newspaper, Ohio) report: "OSU encampment protest against Israeli occupation and genocide", S.N. Nahar, p. 8, Issue May 15, 2024
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