Curriculum Vitae

Dr. PIYUSH SINHA
PROFESSOR
PHYSICS
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Education Qualification	M.Sc., M.Phil., Ph.D.		
Teaching Experience	32 Years as on	Research Experience	3.5 Years as
	10.02.2024		JRF & SRF

Areas of Interest/ Specialization

- 1. Theoretical studies of Atomic and Molecular collisions
- 2. Nuclear Physics
- 3. Science Communications

Honours & Awards

- 1. Recipient of the 'Chancellor's Medal', 1989, CCS University, Meerut
- 2. Recipient of 'Group Study Exchange Award', 2003, of the Rotary International, U.S.A.

Member of Academic Institutions

1. Life member Indian Science Congress: Haridwar Chapter

Membership of Scientific Organization

1. Indian Society of Atomic and Molecular Physics

Research Supervision (No. of Ph.D. Degree Awarded/ Registered): Awarded One

Administrative Experience: Worked in the following capacities from time to time:

- 1. Deputy Chief Proctor
- 2. Assistant Dean Student Welfare
- 3. Senior Superintendent, Assistant Superintendent examinations
- 4. Convenor and member of various committees at campus level

Scientific Visits Abroad / International Collaboration

1. Visited New South Wales, Australia in 2003

Conference/Symposium/Workshop Attended recently

International: (Attended/Presented Paper/Invited Talk/Keynote Address/Session Chair, Title of event, place, date, year)

1. Delivered an invited talk 'A modified Binary Encounter Bethe approach for calculating direct ionization cross sections of Atoms, Ions and Molecules by Electron Impact', at International Conference on 'Atomic, Molecular, Material, Nano & Optical Physics with Applications (ICAMNOP-2023)', December 20-22, 2023 at Delhi Technological University (DTU), New Delhi, India.

- 2. Chaired a technical session at International Conference on Atomic, Molecular, Material, Nano & Optical Physics with Applications (ICAMNOP-2023), December 20-22, 2023 at Delhi Technological University (DTU), New Delhi, India.
- 3. Delivered an invited talk 'Developments in the theoretical studies of atomic and Molecular collisions by electron impacts', at International conference on 'Advancements in Physical Sciences: Promoting Societal Welfare, Sustainable Development ..', September 15 16, 2023, Sri Dev Suman Uttarakhand University, Rishikesh, India
- 4. Chaired a technical session at International conference on 'Advancements in Physical Sciences: Promoting Societal Welfare, Sustainable Development ..', September 15 16, 2023, Sri Dev Suman Uttarakhand University, Rishikesh, India

National

- 1. Delivered an invited talk on 'Ionisation Cross sections of atoms and molecules' at National conference on recent advances in theoretical and experimental sciences (NCRATES 2023), 29-30 September, 2023, Government PG college, Jahrikhal, Pauri (Garhwal), Uttarakhand.
- 2. Chaired a technical session at National conference on recent advances in theoretical and experimental sciences (NCRATES 2023), 29-30 September, 2023, Government PG college, Jahrikhal, Pauri (Garhwal), Uttarakhand.
- 3. Chaired a technical session at 5th-National conference on 'Recent advancement in physical sciences (NCRAPS-2023), December 19-20, 2023, NIT, Uttarakhand (Srinagar).

Recent Research Publications

Journals (Title of Paper, All Authors (Surname First), Name of Journal, Volume No, Page Nos, Year of publication (Impact Factor))

1. Toxicity in Cadmium Containing Quantum Dots;

Neelam Sinha and Piyush Sinha

JMR 17 (2) December, 2022 (Web of science)

DOI:https://doi.org/10.51220/jmr.v17i2.34

2. Scattering calculation for single channel and coupled channel approximation using resonating group method;

Neelam Sinha and Piyush Sinha

JMR 18 (1) June, 2023 (Web of science)

DOI:https://doi.org/10.51220/jmr.v18i1.35

- 3. Calculation of electron induced ionization cross sections of fusion relevant material: W atoms
- G. Purohit, D. Kato, I. Murakami, Shivani Gupta and Piyush Sinha

The European Physical Journal D, 2021 1434-6060(P) 1434-6079(e)

The European Physical Journal D (springer.com)

4. Use of Microscopic theoretical methods for the construction of the nuclear wavefunction of ⁷Li, Neelam Sinha and **Piyush Sinha**

Journal of Mountain Research 2021 Vol. 16(2) (Web of science)

5. Direct ionization cross sections of Uranium atom by electron impact Shivani Gupta and **Piyush Sinha** Journal of Mountain Research 0974-3030, 2582-5011(e) <u>Journal of Mountain Research</u> (<u>sharadpauri.org</u>) indexed in (Web of Science)

6. Electron impact single ionization cross sections of W⁺

G. Purohit, D. Kato, I. Murakami, K. C. Dhakar, Shivani Gupta and **Piyush Sinha** The European Physical Journal D 2021 1434-6060(P) 1434-6079(e)<u>The European Physical Journal D (springer.com)</u>

Books/Chapters: (Authors, Title of book, Publisher, year)

Collisional process in Plasma; Neelam Sinha and **Piyush Sinha**

Book title: Recent developments and techniques in Physical Sciences'

Editors: Dr. Amita Raizada and Dr. Gunjan Purohit

Weser Books, No. 79737 Äussere Weberstr. 57 02763 Zittau, Germany

Publication Year: 2022 (copy received: September, 2022)

Paperback ISBN: 978-3-96492-444-5 Hardbound ISBN: 978-3-96492-445-2

Book DOI: https://doi.org/10.33545/wb.book.260

Total Number of Research Publications: Twenty-Four