



Principal: Dr. Mohinder Pal Singh

PERSONAL INFORMATION:-

Name : MOHINDER PAL SINGH

E-Mail Address mp20648@yahoo.co.in

Contact Numbers 9417067792 , 7888700425

EDUCATIONAL QUALIFICATIONS:-

Matriculation in 1974 from M.S.D. Public School Bathinda

B.Sc(Non- Med) in 1978 from Govt. Rajindra College Bathinda

M.Sc (Physics)in 1980 from Physics Deptt. Punjabi. University .Patiala

M. Phil (Physics)in1981 from Physics Deptt. Punjabi. University .Patiala

Ph.D (Physics)**2011** from Physics Deptt. Punjabi. University .Patiala as a teacher fellow under 10th plan FIP of UGC New Delhi.

P.G.D.CA (Computer) ...in 2003 from Punjab Technical University Jalandhar

RESEARCH WORK :

Published 12 International papers in Asian J. Chemistry, Physics scripta ,NIM A , J. Med. Physics , Radiation Measurements ,Indian . J. of Physics,

26 National papers in journals and proceedings.

Attended **05 INTERNATIONAL CONFERENCES.**

and visited, Coimbra, Paris , Lisbon , Portugal, Melbourne, Australia,

TEACHING EXPERIENCE:-

33 years teaching experience and working as. **PROFESSOR in (Physics)** , **PRINCIPAL** of Punjabi. University Guru Kashi College Damdama Sahib and recently **INCHARGE** of Guru Kashi Campus Talwandi Sabo and **HEAD** of Punjabi University Baba Dhyana Das Neighborhood Campus Jhunir (Mansa)

ACHIEVEMENTS AND EXTRA CURRICULAR ACTIVITIES:-

- (1) In **1974**, remained **Best Singer and Best Painter** of M.S.D. Public School Bathinda and Bathinda District.
- (2) From **1975 to 1981** , for **Seven times** recommended in **oil painting & on the spot sketching** competitions held in **Zonal & Inter Zonal Youth Festivals** organized by Punjabi University Patiala and **won Gold Medal**.
- (3) From **1975 to 1978** , during the stay in the college ,won so many prizes in Singing (**particular in Folk Songs, Gajals and Shabads**) and declared **Best Singer** of Govt. Rajindera College Bathinda.
- (4) From **1975 to 1978**, got **College Colours** for **four** times for taking parts in extra activities.
- (5) From **1979 to 1981** , remained a member of Punjabi Uni. Patiala **Table Tennis Team** & got **championship twice in TableTenus** and declared **Best Singer of Pbi. Uni. Campus Patiala**.
- (6) From **1990 to 2000** , remained approved **Folk Singer B+** ,graded artist from **A.I.R Jalandhar and Bathinda FM radio stations**.
- (7) From **1990 to 2000**, took part in **Doordarshan (D.D) Jalandhar programmes** like sandli paddian, sawal jawab , quiz , virasat, aao sare gao etc
- (8) In **2002** ,remained **winner** of singing competition '**AAO SARE GAO**' held by **Doordarshan(D.D) Jalandhar** and recently a **Gurbani Kirtan** recited by my group on Guru Nanak Dev ji was telecasted by **D.D. Hisar**

(9) In 2002 , **Padma Shri S.S.S. Boparai Vice Chancellor Punjabi University Patiala** awarded me **Life Achievement Award** for my 25 years long services in extra activities organized by Youth Department Punjabi University Patiala held at Patiala.

(10) In 2003, **Governor of Himachal Pradesh Shri Suraj Bhan ji** awarded me **Bharat Joyti Award** organized by **International Friendship Society India New Delhi at New Delhi..**

(11) In 2017, **Former Governor of Tamil Nadu Shri Dr Bishma Naryain Singh ji** awarded me **Best Educational Award** organized by **International Institute of Education and management New Delhi at New Delhi..**

(12) An **active member** of various **Science societies** like Punjab Science Congress, Indian Radiation Society of Physics, International Society of Radiation Physics , Atomic and molecular physics society and **Social clubs** like Guru Gobind Singh Study Circle Ludhiana.

RESEARCH WORK : (LIST OF PUBLICATIONS)

1. Determination of effective atomic number using Rayleigh to Compton scattering of gamma rays

M.P.Singh, B.S.Sandhu and Bhajan Singh. Asian J. Chem. 18 (2006) 3275-3278

2. Measured of effective atomic number of Composite materials using Rayleigh to Compton scattering of 279 keV gamma rays.

M.P.Singh, B.S.Sandhu and Bhajan Singh. Phys. Scr. 76 (2007) 281-286

3. Measurement of effective atomic number of Composite materials using scattering of gamma rays.

M.P.Singh, B.S.Sandhu and Bhajan Singh. Nucl. Instrum & Methods, A 580 (2007) 50-53.

4. Coherent and Incoherent scatterings for measurement of mandibular bone

density and stable iodine content of tissue.

Amandeep Sharma, **M. P. Singh**, B. S. Sandhu and Bhajan Singh. **J. Med. Phys.** **34 (2009) 182-187.**

5. Non-destructive evaluation of Pb-Sn alloys by scattering of 145 keV gamma rays.

M. P. Singh, Amandeep Sharma, B. S. Sandhu and Bhajan Singh. **Asian J. Chem.** **21 (2009) 242-245.**

6. A Gamma scattering technique for inspecting density variation.

Amandeep Sharma, **M.P.Singh**, B. S. Sandhu and Bhajan Singh. **Asian J. Chem.** **21 (2009) 301-304.**

7. A non-destructive technique for assigning effective atomic number to scientific samples by scattering of 59.54 keV gamma photons.

M. P. Singh, Amandeep Sharma, B. S. Sandhu and Bhajan Singh. **Nucl. Instrum & Methods, A 619 (2010) 63-66.**

8. Non-destructive evaluation of scientific & biological samples by scattering of 145 keV gamma rays.

M.P.Singh, Amandeep sharma, B.S.Sandhu and Bhajan Singh. **Radiation Measurements, 45 (2010) 960-965**

9. Measurement of Rayleigh to Compton Cross section ratio of elements in range $6 \leq Z \leq 82$ for 59.54keV gamma photons.

M.P.Singh, Bhajan Singh and B. S. Sandhu **Indian j. of Physics 50 (2012) 490-493**

10. An experimental study on cross-section ratio of coherent to incoherent scattering for 145 keV incident gamma photons

M.P. Singh, Amandeep Sharma, Bhajan Singh, B.S. Sandhu **Radiation Measurements 59 (2013) 30-36**

11. Measurement of effective atomic number and Rayleigh – to – Compton cross section ratio for 145 keV gamma photons.

M.P. Singh, Amandeep Sharma, Bhajan Singh, B.S. Sandhu

J Radio anal Nucl Chem 301 (2014)1-10

12. Coherent to Incoherent Cross Section Ratio for 59.54 keV

Gamma Rays at Scattering Angle of 110°

M.P. Singh¹, Amandeep Sharma², Bhajan Singh¹ and B.S. Sandhu¹,

AIP Conference Proceedings 1675, 030097, 1-5 (2015);

PAPER PRESENTATIONS IN NATIONAL SYMPOSIUM

1. Incoherent Scattering of 279keV gamma rays from k-shell electrons of tantalum.

Bhajan Singh, Paramjit Singh, **M.P.Singh** and B.S.Ghumman.

IVth National Symposium on Radiation Physics, P.U.Patiala (**1981**)

2. Attended One month All India Summer Institute on Astronomy and Space Physics at Department of Astronomy and Space Physics P.U.Paitala (**1985**)

3. Experimental measurement of Rayleigh to Compton Scattering Ratio at 662 keV

Bhajan Singh, Mandeep Kaur, **M.P.Singh** and B.S.Sandhu

XVI National Symposium on Radiation Physics, Chennai (**2006**).

4. Elemental analysis of binary alloys using coherent to incoherent intensity ratio of 279 keV gamma rays.

M.P.Singh, B.S.Sandhu and Bhajan Singh

XVI National Conference on Atomic and Molecular Physics, Mumbai (**2007**).

5. Determination of Zeff of binary alloys with R/C method and multiple scattering technique.

M.P.Singh, Manpreet Singh, B.S.Sandhu and Bhajan Singh

Symposium on Radiation Sources, Detection and Applications, Patiala (**2007**).

6. Measurement of effective atomic number of unknown compounds by Rayleigh to Compton scattering ratio method.

M.P.Singh, B.S.Sandhu and Bhajan Singh

Seventeenth National Symposium on Radiation Physics, Kolkata (**2007**).

7. Measurement of Iodine concentrations in KI solution with coherent to Compton scattering intensity ratio method

M.P.Singh, B.S.Sandhu and Bhajan Singh

11th Punjab Science Congress, Patiala (**2008**).

8. Variation of concentration in K_2PHO_4 solution with Rayleigh to Compton scattering intensity ratio method.

M.P.Singh, B.S.Sandhu and Bhajan Singh

National Seminar on Radiation and Materials, Patiala (2008).

9. Variation of concentration in K_2PHO_4 solution with coherent to Compton scattering intensity ratio method.

M.P.Singh, B.S.Sandhu and Bhajan Singh

Bhai Gurdas Institute of Engg. & Technology, Sangrur, (2008).

10. Attended ' Second Sarab Bharti PunjabiConference" at Punjabi University Patiala (2009)

11. Photon scattering method for bone density measurements.

Amandeep Sharma, **M.P.Singh** , B.S.Sandhu and Bhajan Singh

12th Punjab Science Congress, Ludhiana, (2009).

12. Measurement of Rayleigh to Compton Cross-section ratio of elements in range $6 \leq Z \leq 82$ for 59.54keV gamma photons.

M.P.Singh, Bhajan Singh and B. S. Sandhu

Sixteenth National Symposium on Solid State Nuclear Track Detectors and their applications (SSNTD-16), Amritsar, (2009).

13. Attended One day Patent Awareness Workshop at Yadavindra College of Engineering Guru Kashi Campus Talwandi Sabo in association with Patent Information Centre ,P.S.C.S.T Chandigarh. **(2009)**

14. Attended One day Workshop on Phoenix Training Program (PTP-2010) at Maharishi Markandeshwar University Mullana (Ambala) -**2010**

15. Attended National Conference on Life and ideology of Shaheed Bhagat Singh at Punjabi University Guru Kashi College Damdma Sahib **(2010)**

16. Experimental Study of Rayleigh to Compton scattering cross-section ratio of elements in range $6 \leq Z \leq 82$ for 145keV gamma photons.

M.P.Singh, Bhajan Singh and B. S. Sandhu

National Symposium on Radiation Physics and Nanomaterials (NSRPN- 11) Punjabi University Patiala **(2011)**.

17. Rayleigh to Compton scattering cross-section ratio of elements ($6 \leq Z \leq 82$) for 59.54keV incident gamma photons.

M.P.Singh, Bhajan Singh and B. S. Sandhu

2nd DAE-BRNS Symposium on Atomic , Molecular and Optical Physics Karnatak University , Dharwad **(2011)**.

18. Study of intensity ratio for impact of 662keV gamma rays at 50o on lab materials and its surroundings like water, soil and plants.

M.P.Singh

International Conference on Emerging Trends in Physics for Environmental Monitoring & Management (ETPEMM-12) Punjabi University Patiala

19. An Experimental study of Rayleigh to Compton Scattering intensity ratio, which follows Z^2 dependence.

M.P.Singh, Bhajan Singh and B. S. Sandhu

16th Punjab Science Congress, Faridkot, (**2012**).

20. Experimental measurement of Rayleigh to Compton cross-section ratio for 279 keV gamma photons.

M.P. Singh, Amandeep Sharma, Bhajan Singh, B.S. Sandhu

3rd National Conference on advanced materials and radiation physics (AMRP-2013) Nov. 22-23, **2013**

21. Experimental measurement of Rayleigh to Compton cross-section ratio of elements in range $6 \leq Z \leq 82$ for 145 keV gamma photons.

M.P. Singh, Amandeep Sharma, Bhajan Singh, B.S. Sandhu

National Symposium on emerging trends in physics for ionizing Radiations, Aerosols & Material science (ETPRAM-13), Punjabi University Patiala. Dec 13-14, **2013**

22. How Physics play an important role in our daily life

M. P. Singh

INSPIRE Internship 2013 organized by Fateh college for women

Rampura Phul Distt B.T.I , Jan.3-Jan.7, **2014**

23. Determination of self absorption correction factors for 59.54keV and 145keV at 50 , 70 , 90 , 110 and 130 scattering angles used in Rayleigh to Compton scattering cross-section ratio.

M.P.Singh , Dr Bhajan Singh and Dr B,S,Sandhu

One Day Symposium at Khalsa college Patiala , 30th Oct **2014**

24. To study and determine of effective atomic numbers of lanthanides , brass , bronze ,soldering material by scattering of 145keV gamma rays at 50, 70, 90 degrees scattering angles.

M.P. Singh¹, Bhajan Singh² and B.S. Sandhu²,

Two Days International conference (ICRIESHM -17) **Recent Innovations in Engineering, Science, Humanities and Management**

Dev Samaj College of Women Firozpur city ,18-19 March 2017

INTERNATIONAL CONFERENCES ATTENDED

- 1.** 10th International Symp. Rad. Physics, **Coimbra, Purtugal**, 17-22 Sept, **(2006)**.
- 2.** 11th International Symp. Rad. Physics, **Melbourne, Australia**, 20-25 Sept., **(2009)**.
- 3.** International Conference on Medical Physics (ICMP-08), **BARC, Mumbai**, Nov. 26-29 **(2008)**.
- 4.** International Conference on Emerging Trends in Physics for

Environmental Monitoring & Management (ETPEMM-12),

Punjabi University Patiala December 17 - 19, **2012**

5. Two Days International conference (ICRIESHM -17)

Dev Samaj College of Women Firozpur city ,18-19 March **(2017)**

(Dr .M.P SINGH)

PROFESSOR

(Physics) ,

PRINCIPAL Punjabi. University Guru Kashi College Damdama Sahib

Incharge Guru Kashi Campus Talwandi Sabo

HEAD of Punjabi University Baba Dhyani Das Neighborhood Campus Jhunir (Mansa)

9417067792, e-mail : mp20648@yahoo.co.in