Curriculum Vitae

Name : Sanjiv Puri
 Designation : Professor
 Department : Physics

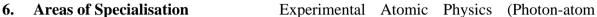
4. Date of Birth : May 31, 1967

5. Address for Correspondence : Punjabi University, Patiala-147002

Mobile: 9815603759

E-mail : sanjivpuri@pbi.ac.in

sanjivpurichd@yahoo.com sanjivpuriucoe@gmail.com



interactions / Ion-atom collisions / Elemental analysis using EDXRF and PIXE techniques).

7. Academic Qualifications

Sr. No.	Degree	Year	Board/Univ.	Division	Subjects Studied
1	B.Sc.	1986	PU, Chd.	\mathbf{I}^{st}	Phys., Chem., Maths
2	M.Sc.	1988	PU, Chd.	\mathbf{I}^{st}	Physics
3	Ph.D.	1995	PU, Chd.		Experimental Atomic
					Physics
4	NET exam	1990	UGC-CSIR	Qualified	Physical Sciences

8. Scholarships / Fellowships

S. No.	Period	Fellowship Awarded	Name and place of Host Institution
1.	Jan., 1991-	Junior Research Fellow	Dept. of Physics, Panjab University,
	Dec., 1992	(Awarded by UGC, N. Delhi)	Chandigarh-160014, India.
2.	JanAug.,	Visiting Scientist	Dept. of Nuclear physics,
	1993	(Awarded by International Science	University of Lund, Lund, Sweden.
		Programs, Uppsala, SWEDEN.)	
3.	Sept., 1993 -	Senior Research Fellow	Dept. of Physics, Panjab University,
	Sept., 1994	(Awarded by UGC, N. Delhi)	Chandigarh-160014, India.
4.	Nov., 1998 -	Visiting Scientist	
	Feb., 1999	(Awarded by Punjab State Council for	Dept. of Physics, Panjab University,
		Science and Technology (PSCST)	Chandigarh-160014, India.
		Under Young Scientist Fellowship	
		scheme, Punjab, India)	
5.	June-July	Visiting Scientist	Dept. of Physics, Panjab University,
	2002	(Awarded by Indian National Science	Chandigarh-160014, India.
		Academy (INSA), N. Delhi, India)	-

9. Membership of Professional Bodies/Organisations

- i) Life member, Indian Society for Radiation Physics (ISRP)
- ii) Life member, Indian Physics Association (IPA)
- iii) Indian Society of Atomic and Molecular Physics (ISAMP)

10. Citations of Research publications (ORICID ID: <u>0000-0001-7669-3198</u>)

	As per SCOPUS	As per Research Gate	As per Google Scholar
Citations	2080	2193	2489
h-index	23	24	25
i10	-	-	43



11. Details of Employment

S. No.	Name of the Inst. /	Position Held	Duration	Job Responsibilities
	Employer			
1.	SLIET, Longowal	Lecturer (Phys.)	Sept. 1994 – Aug., 2002	Teaching and Research
	(Deemed University)			
2.	SLIET, Longowal	Assistant Prof. (Phys.)	Aug. 2002 – Aug., 2005	Teaching and Research
	(Deemed University)	(Equivalent to Reader)		
3.	U.Co.E., Punjabi	Reader (Phys.)	Aug., 2005 – Dec., 2005	Teaching and Research
	University, Patiala			
4.	U.Co.E., Punjabi	Associate Prof. (Phys.)	Jan., 2006 - Dec, 2008	Teaching and Research
	University, Patiala			
5.	Department of Basic and	Professor (Phys.)	Jan., 2009 – March, 2022	Teaching and Research
	Applied Sciences, Punjabi	-		
	University, Patiala			
6.	Department of Physics,	Professor (Phys.)	1 April, 2022 onwards	Teaching and Research
	Punjabi University,	•	_	-
	Patiala			

12. Administrative / Academic Experience

- ❖ Dean, Faculty of Physical Sciences from 01-01-2022 onwards
- **❖ Dean FYIP** from 07-07-2023 onwards
- ❖ Director, Planning and Monitoring, Punjabi University, Patiala from 01-04-2022 onwards
- ❖ Head, Dept. of Basic and Applied Sciences, Punjabi Univ. from Sept., 2013 to June, 2018.
- ❖ In-charge, Basic and Applied Sciences, U.Co.E. Punjabi Univ. from Nov., 2008 to Sept., 2013.
- ❖ Member, ACADEMIC COUNCIL, Punjabi Univ. for session 2015-16, 2021-22, 2022-23
- ❖ Nominated member of "Regulation Committee" of Punjabi University during 2021-2023.
- ❖ Coordinator, Multi-Disciplinary Five-Year Integrated Post Graduate Program (MD-FYIPGP) in Physical and Chemical Sciences (Major: Physics / Chemistry) (Honours School system) 2021-22 onwards.
- Chairman, "Board of Studies for MD-FYIPGP in Physical and Chemical Sciences" for 2021-22 onwards.
- **❖ Program Coordinator**, 5 Year Integrated M.Sc. programme in Physics (Honours School system), 2019-20, 2020-21, 2021-22.
- * Chairman, "Board of studies in Basic and Applied Sciences" Punjabi Univ. from July, 2014 July, 2018.
- ❖ Member, "Board of Studies in Basic and Applied Sciences" Punjabi Univ. from July, 2014 July 2022.
- ❖ Member, "Board of Post-Graduate studies in Physics", Punjabi Univ., Jan 2023 onwards
- ❖ Member, "Board of Under-Graduate studies in Physics", Punjabi Univ., Jan 2023 onwards
- ❖ Member, BPSAR, Faculty of Physical Sciences, Punjabi Univ., Patiala from Sept., 2014 onwards.
- ❖ Member, "Research Award Committee" (RAC), Faculty of Physical Sciences, Punjabi Univ. during Jan. 2019-Jan. 2021; Jan, 2021-Jan, 2023.
- Co-Coordinator, Central Admission Cell, Punjabi Univ. for admissions during 2016-17.
- **Coordinator**, B. Tech. Admission Committee for 2015-16.
- "VC Nominee / Member, Selection / Screening committees" for promotions under CAS of UGC and for appointments of Assistant Professors / Associate Prof. / Professor in Punjabi University and its affiliated colleges.
- ❖ Convener / Member of different committees constituted by Punjabi Univ. for inspection of affiliated Colleges, Departmental committees (fee-concession committee, anti-ragging committee and different purchase committees) constituted from time to time since 2006

13. List of Courses/papers taught

S. No.	Paper	Class
1.	Modern Physics	FYIP B.ScM.Sc. Physics (HS) Part II
2.	Nuclear and Particle Physics	FYIP B.ScM. Sc. Physics (HS) – Part III
3.	Applied X-ray Spectrometry	M. Sc. (Applied Physics) – Part II
4.	Experimental techniques in Physics	Ph.D. (Physics) course work
5.	C programming and Numerical methods	FYIP M.Sc. Physics (HS) – Part I
	(Lab courses)	
6.	Applied Physics I & II	B. TechI

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14. Research Profile

(i) Published Work (Please specify numbers only)

- (a) Research Papers in SCOPUS/SCI International Journals: 85
- (b) Research Papers presented in Conference/Symposia: 76
- (c) Books (Original): 02
- (d) Chapters in Books: 02

(ii) R & D Projects

- A project titled "Investigation of processes following L and M shell photoionization and analytical applications using EDXRF technique" worth **Rs.17.85lacs** awarded to me as *Principal Investigator* by the **Department of Science and Technology (DST), N. Delhi** vide no. SR/S2/LOP-19/2006, for a period of three and a half years (Aug., 2007 Feb., 2011) was implemented at U.Co.E., Punjabi Univ., Patiala.
- A project titled "Investigation of photon atom interaction processes at incident energies across the Li (i=1-3) subshell absorption edges for some medium Z elements using synchrotron radiation" worth **EURO12,000** awarded to me as Principal Investigator for conducting experiments at "Elletra Synchrotron", Italy by **International Atomic Energy Agency (IAEA), Austria** vide contract no. 18259 in April, 2014-2018.
- A project titled "Investigation of Chemical effects on the K/L X-ray intensity ratios and absorptionedge energy shifts in different compounds of some medium and high Z elements using synchrotron radiation" awarded to me as Principal Investigator for conducting experiments at Raja Rmanna Centre for Advanced Technology (RRCAT), Indore by <u>UGC-DAE Consortium for Scientific Research</u>, Indore vide no. CSR-IC-ISUM-51/CRS-334/2020-21/792 dated March 4, 2021.

I was one of the collaborating investigators in the following projects.

- A project titled "Photon Scattering in the x-ray energy region & its applications in energy dispersive x-ray fluorescence technique" worth Rs.9.5lacs sanctioned by Department of Science and Technology (DST) in 1997 vide no. SP/S2/L-06/96 (Principle Investigator: Prof. Nirmal Singh).
- A project titled "Investigations of the elastic and inelastic scattering processes in the X-ray energy region" worth Rs.7.00lacs sanctioned by Department of Science and Technology (DST) in 2003 (Principle Investigator: Prof. Nirmal Singh).

(iii) Invited Talks / Chairing a session / Resource person / Course Coordinator

- 1. Delivered an invited Lecture as **Resource Person** in ISTE sponsored short term course held at SLIET, Longowal during February 14-25, 2000.
- 2. Delivered an **invited Lecture** on "Source apportionment studies using receptor modelling for air pollution monitoring" in Seminar on "Computational Techniques in Physics" held at department of Physics, Panjab University, Chandigarh, during March 6-7, 2002.
- 3. Delivered an invited Lecture as a **Resource Person** in AICTE sponsored Staff Development Programme held at SLIET, Longowal during 7-18 Nov., 2005.
- 4. Delivered **invited talk** on "Recent Investigations of Li (i=1-3) Sub-shell Physical Parameters for XRP Cross sections and Intensity Ratios for Rare-earth Elements" during National Symposium on "Radiation Physics and Nanomaterials" (NSRPN-11) held at Department of Physics, Punjabi University, Patiala during Feb. 4-5, 2011.
- 5. *Chaired a technical session* during the National Conference on Advanced Materials and Radiation Physics (AMRP-2011) held at SLIET, Longowal during Nov. 4-5, 2011.
- 6. Delivered an **invited talk** on "Recent Investigations of Chemical effects on $L_i(i=1-3)$ sub-shell x-ray relative intensities" during International conference on "Emerging trends in Physics for environmental monitoring and management" (ETPEMM-12) held at Department of Physics, Punjabi University, Patiala, during Dec. 17-19, 2012.
- 7. Delivered an **invited talk** on "*X-ray emission techniques for elemental analysis*" at Department of Applied Sciences, Chandigarh University, Gharuan, Mohali on Nov. 11, 2013.
- 8. Delivered an invited talk as **Resource Person** on "Nuclear techniques for elemental analysis" in a Short term course titled "Nuclear Techniques and Instrumentation" organised by Department of Applied Sciences, NITTTR, Chandigarh during 21-25 Oct., 2013.

- 9. Delivered **invited talk** on "Recent Investigations of L shell Physical Parameters for Photoionization Processes Using EDXRF Technique" in the XRF meeting at RRCAT, Indore during March 19-20, 2013.
- 10. Delivered **invited talk** on "Investigation of photon atom interaction processes at incident energies across the L(i=1-3) sub-shell absorption edges for some medium Z elements using synchrotron radiation" in the RCM-1 and RCM-2 of the Co-ordinated Research Project (G42005) organised by International Atomic Energy Agency (IAEA), Austria at ELETTRA Synchrotron, Trieste, ITALY during July 21-25, 2014 and May 30 June 03, 2016, respectively.
- 11. **Chaired a technical session** during the 4th National Conference on Advanced Materials and Radiation Physics (AMRP-2015) held at SLIET, Longowal during March 13-14, 2015.
- 12. Delivered **invited talk** on "Atomic Inner-shell ionization processes and analytical application using X-ray emission techniques" during Industry Academia week organised by PEC University of Technology, Chandigarh during April 6-10, 2015.
- 13. Delivered talk on "*Material composition analysis using EDXRF and PIXE techniques*" as **Resource Person** during Refresher Course organized by Human resource development Centre, Punjabi Univ., Patiala, on June 12, 2015.
- 14. Delivered talk on "Elemental composition analysis using techniques based on photon-atom interaction processes" as **Resource Person** during Refresher Course organized by Human resource development Centre, Punjabi Univ., Patiala, on June 27, 2016.
- 15. Delivered an invited talk on "X-ray based analytical techniques" as **Resource person** in a STC organised by Department of Applied Sciences, NITTTR, Chandigarh during 20-24 March, 2017.
- 16. Delivered a talk on "Study of energy and charge state dependence of cross sections for production of the line resolved M X-rays of some heavy elements by low energy ion beams" in 63rd Accelerator Users workshop held at IUAC, Delhi during 16-18 Dec., 2017.
- 17. Delivered a talk on "Investigation of projectile -energy and -Z dependence of cross sections for production of M X rays of some heavy elements by low velocity ion beams." in **64rd Accelerator Users** workshop held at Inter-University Accelerator Centre, Delhi during 5-7 July, 2018.
- 18. Delivered an **invited talk** on "Recent measurements of fundamental physical parameters characterizing x-ray emission processes using synchrotron radiation" in the **Consultancy meeting organized at HEADQUATERS of "International Atomic Energy Agency (IAEA)", Vienna, Austria during 17-21 Dec., 2018.**
- 19. Delivered a talk on "Recent Investigations of Photon-atom interaction processes in X-ray Energy region and analytical applications" as **Resource Person** during Refresher Course organized by Human resource development Centre, Punjabi Univ., Patiala, on Dec., 3, 2019.
- 20. Delivered an **invited talk** on "Recent Investigations of Synchrotron Radiation Induced Atomic Innershell Photoionization Processes" during the 5th National Conference on "Advanced Materials and Radiation Physics (AMRP-2020)" held at SLIET, Longowal during Nov. 9-11, 2020.
- 21. **Chaired a technical session** during the 5th National Conference on "Advanced Materials and Radiation Physics (AMRP-2020)" held at SLIET, Longowal during Nov. 9-11, 2020.
- 22. Delivered an **invited talk** on "Recent investigations of M -shell ionization processes induced by low velocity ion impact on some heavy elements" during workshop on "Atomic and Molecular Physics with ion beams" held at IUAC, New Delhi during 17-18 Nov., 2021
- 23. Delivered a talk on "Analytical techniques for elemental analysis" as **Resource Person** during Refresher Course organized by Human resource development Centre, Punjabi Univ., Patiala, on Dec., 09, 2021.
- 24. **COURSE-COORDINATOR** for Refresher Course in Physics organized by Human resource development Centre, Punjabi Univ., Patiala, during 27 Oct. 09 Nov, 2022.
- 25. Delivered a talk on "Analytical techniques for Material composition analysis" as **Resource Person** during Refresher Course organized by Human resource development Centre, GNDU, Amritsar, on Nov., 14, 2022.
- 26. Delivered an **invited talk** on "Investigations of low velocity ions induced M X-ray emission in some heavy elements" during the 6th National Conference on "Advanced Materials and Radiation Physics (AMRP-2023)" held at SLIET, Longowal during May 18-19, 2023.
- 27. **Chaired a technical session** during the 6th National Conference on "Advanced Materials and Radiation Physics (AMRP-2023)" held at SLIET, Longowal during May 18-19, 2023.

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(iv) Ph.D. Students guided/under guidance (Details):

S. No.	Name of the Student	Title of Thesis	Year of
			Completion / Registration
1.	_	Study of processes following L and M shell Photoionization using EDXRF technique and analytical application.	2012
2.	Mr. Anil Kumar	Investigations of physical parameters for X-ray production cross sections using EDXRF technique.	2012
3.	Ms. Rajnish Kaur	Investigation of photon atom interaction processes at energies across the atomic inner-shell ionization thresholds of different elements using synchrotron radiation.	
4.	Ms. Shehla	Investigation of physical parameters for processes following atomic inner-shell ionization by ion impact	2019
5.	Ms. Vibha Ayri	Study of Synchrotron radiation induced inner-shell photoionization processes at energies across the Li absorptionedges of some heavy elements	
6.		Investigation of fundamental parameters for photon-atom interaction processes at energies near absorption-edges of some medium Z elements	
7.	Mr. Balwinder Singh	Investigation of charged particle induced atomic inner-shell ionization processes in some heavy elements	Registered Aug., 2019
8.		Study of Fundamental Physical Parameters for Synchrotron Radiation Induced L- and M-series X-ray Emission in Some Heavy Elements	_

(V) Mentor of Post Doctoral Fellow

S,No.	Name of Student	Fellowship providing agency	Duration
1.	Dr. Harpreet Singh	UGC – D. S. Kothari Fellowship	June, 2019 – June 2022

(VI) Overseas visits for research purposes

S. No.	Purpose	Duration
1.	<u>Visiting Scientist</u> at the Dept. of Nuclear Physics, University of Lund, with	Jan. – Aug., 1993
	Fellowship awarded by the "International Science Programs", Uppsala, SWEDEN.	
2.	Attended summer school on "Synchrotron Radiations" held at "The Abdus Salam	April 19 –May
	International Centre for Theoretical Physics (ICTP), Trieste, ITALY.	22, 1999
3.	Attended a first meeting of the Research Coordination meeting organized by	July 21-25, 2014
	International Atomic Energy Agency (IAEA), Austria held at the ELETTRA	
	Synchrotron, Trieste, ITALY.	
4.	To Perform experiments at ELETTRA Synchrotron, Trieste, ITALY.	Dec. 18-23, 2015
5.	Attended a second meeting of the Research Coordination meeting organized by	May 30 – June 03,
	IAEA, Austria held at the ELETTRA Synchrotron, Trieste, ITALY.	2016
6.	To perform experiments at ELETTRA Synchrotron, Trieste, ITALY.	Nov. 02-07, 2016
7.	To perform experiments at ELETTRA Synchrotron, Trieste, ITALY.	Dec. 03-11, 2017
8.	Invited To attend Consultancy meeting held at IAEA headquarters, Vienna,	Dec., 17-21, 2018
	Austria.	
9.	To perform experiments at ELETTRA Synchrotron, Trieste, ITALY.	Mar. 03-12, 2019
10.	To perform experiments at ELETTRA Synchrotron, Trieste, ITALY.	Dec. 08-16, 2019

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(VII) Visits to National Research Laboratories

S. No.	Purpose	Duration
1.	To perform experiments at INDUS-II Synchrotron, RRCAT, Indore.	Jun. 12-16, 2012
2.	To attend first interaction meeting on "Synchrotron based X-ray	Mar. 19-20, 2013
	fluorescence (XRF) techniques" held at RRCAT, Indore	
3.	To perform experiments at INDUS-II Synchrotron, RRCAT, Indore.	Jun. 10-13, 2013
4.	To perform experiments at INDUS-II Synchrotron, RRCAT, Indore.	Mar. 30-April 03, 2015
5.	To perform experiments at ECR ion accelerator, TIFR, Mumbai.	Nov. 21-26, 2016
6.	To attend 63 rd Accelerator User workshop at Inter-University	Dec. 16, 2017
	Accelerator Centre (IUAC), Delhi	
7.	To perform experiments at Low energy ion beam facility (LEIBF),	May 09-12, 2018
	Inter-University Accelerator Centre (IUAC), Delhi	
8.	To perform experiments at Low energy ion beam facility (LEIBF),	April 18-21, 2022
	Inter-University Accelerator Centre (IUAC), Delhi	
9.	To perform experiments at Atomic Physics Beamline of PELLETRON,	March 5-12, 2023
	Inter-University Accelerator Centre (IUAC), Delhi	

(VIII) Technical Proficiency

I have long experience of handling sealed radioactive sources, low/high power X-ray tubes, vacuum chamber, cryogenic and Peltier-cooled solid-state x-ray / γ -ray detectors and associated electronic modules such as power-supplies, spectroscopy amplifiers, ADC and PC based multi-channel analysers and associated software.

For past several years, I have been using the XRF beam lines at the Synchrotron Radiation facilities at RRCAT, Indore, India and Elettra Synchrotron, Trieste, Italy for Fundamental Parameter measurements and the atomic physics beam lines at the particle-accelerators, TIFR, Mumbai and IUAC, New Delhi for ion-atom collision studies.

(IX) Reviewer/Referee for International Research Journals

"Nuclear Instruments and Methods B"; "Chemical Physics Letters"; "Radiation Physics and Chemistry"; "Pramana - J. Phys."; "Spectroscopy Letters"; "Canadian J. of Physics"; "Journal of Electron spectroscopy and Related Phenomenon"; "Heliyon"; "American Mineralogist"; "Radiation effects and defects in solids"; "Macromolecular Symposia"; "Applied Radiation and Isotope"; "X-Ray Spectrometry"; "Journal of Atomic Analytical Spectroscopy (JAAS)";

(X) List of Books Published

a. A book titled "Modern Physics: concepts and applications" authored by myself has been published by NAROSA Publishing Co., N. Delhi (First Edition in 2004). [ISBN: 978-81-7319-557-0]

This text-book will be useful for B.Sc. and B.E / B. Tech. students taking up Modern Physics course, as well as for those appearing in the National Education Test (NET) being conducted by UGC-CSIR.

CONTENTS

Special Theory of Relativity / Particle-Properties of Radiation / Atomic Structure / Wave Properties of Particles / Quantum Mechanics / Quantum Theory of Atom / Atom in an External Magnetic and Electric Field / X-rays and Their Applications / Lasers and Their Applications / Radioactivity and its Applications / Statistical Physics / Superconductivity / Optoelectronics / Nanoparticles and their applications.

b. A book titled "Physics for Engineering Applications" authored by myself has been published by NAROSA Publishing Co., N. Delhi (First Edition in 2010). [ISBN: 978-81-8487-041-1]

This textbook provides syllabus for *foundation course in Physics* being offered to the Engineering (B.E / B.Tech.) students. It will be very useful for students appearing for Graduate Aptitude Test for Engineering (GATE) and those appearing in the National Education Test (NET) conducted by UGC-CSIR.

CONTENTS

<u>Section I:</u> Simple Harmonic Oscillations / Damped Harmonic Oscillations / Forced Oscillations / Ultrasonic Waves. <u>Section II:</u> Interference of Light / Diffraction of Light / Resolving Power of Optical Instruments / Polarization of Light / Lasers and Their Applications / Optical Fibers. <u>Section III:</u> Scalar and Vector Fields / Maxwell Equations / Electromagnetic Waves.

<u>Section IV:</u> Special Theory of Relativity / Introduction to Quantum Physics / Quantum Mechanics / Basics of Quantum Computations / Statistical Physics. <u>Section V:</u> Radioactivity and Its Applications / X-rays and Their Applications / Radiation Interaction with Matter / Basic Principles of Radiation Detectors. <u>Section VI:</u> Crystal Physics / Physics of Semiconductors / Dielectric Materials / Magnetic Materials / Superconductors / Nanoparticles.

(XI) Chapters in Books

(a) A chapter titled "Role of Trace Elements in Breast Cancer and Their Characterization Using X-Ray Fluorescence Techniques" in the book titled "Trace Elements and Its Effects on Human Health and Disease" published by "IntechOpen" (License CC BY 3.0) ISBN 978-1-83968-645-0

Harpreet Singh Kainth, Deeksha Khandelwal, Ranjit Singh, Gurjeet Singh and Sanjiv Puri

December 2020, DOI: 10.5772/intechopen.95491

https://www.intechopen.com/online-first/role-of-trace-elements-in-breast-cancer-and-their-characterization-using-x-ray-fluorescence-technique.

(b) A chapter titled "Lab-scale Wavelength Dispersive X-Ray Fluorescence Spectrometer and Signal Processing Evaluation" in the book titled "X-Ray Fluorescence in Biological Sciences: Principles, Instrumentation and Applications" published by "John Wiley and Sons", ISBN: 9781119645719 (online) and 9781119645542 (Print)

Harpreet Singh Kainth, Tejbir Singh, Gurjeet Singh, Devinder Mehta and **Sanjiv Puri** April 2022, DOI: 10.1002/9781119645719.ch33

(XII) Papers published in International peer reviewed Research Journals

Physical parameters for L X-ray production cross-sections.
 <u>Sanjiv Puri</u>, B. Chand, M.L. Garg, Nirmal Singh, J.H. Hubbell and P.N. Trehan
 X-ray Spectrometry 21 (1992) 171-174 (I.F. 1.29, ISSN: 1097-4539) (Citations: 14)

 Measurements of L X-ray fluorescence cross-sections and fluorescence yields for elements in the range 41≤Z≤52 at 5.96 keV.

R.R. Garg, *S. Puri*, S. Singh, D. Mehta, M.L. Garg, J.S. Shahi, N. Singh and P.N. Trehan **Nucl. Instrum. and Methd. B72** (1992) 147-152 (*IF 1.11, ISSN NO. 0168-583X*) (Citations: 59)

- 3. *M Shell x-ray production cross-sections and fluorescence yields for the elements with 71 ≤Z≤92 using 5.96 keV photons.*<u>Sanjiv Puri</u>
 D. Mehta, B. Chand, Nirmal Singh, P.C. Mangal, and P.N. Trehan;
 Nucl. Instrum. and Methd. B73 (1993) 319-323 (IF 1.11, ISSN NO. 0168-583X) (Citations: 38)
- Measurements of K to L shell vacancy transfer probabilities for the elements 37≤Z≤42.
 <u>Sanjiv Puri</u>, D. Mehta, B. Chand, Nirmal Singh and P.N. Trehan;
 Nucl. Instrum. and Methd. B73 (1993) 443-446 (IF 1.11, ISSN NO. 0168-583X) (Citations: 30)
- Measurements of L to M shell vacancy transfer probabilities for elements 70≤Z≤92.
 <u>Sanjiv Puri</u>, D. Mehta, B. Chand, Nirmal Singh and P.N. Trehan;
 Nucl. Instrum. and Methd. B74 (1993) 347-351 (IF 1.11, ISSN NO. 0168-583X) (Citations: 29)
- Production of L sub-shell and M shell vacancies following inner shell vacancy production.
 <u>Sanjiv Puri</u>
 D. Mehta, B. Chand, Nirmal Singh and P.N. Trehan;
 Nucl. Instrum. and Methd. B 83 (1993) 21-30 (IF 1.11, ISSN NO. 0168-583X) (Citations: 56)
- L shell fluorescence yields and Coster-Kronig transition probabilities for elements 25≤Z≤96.
 <u>Sanjiv Puri</u>, D. Mehta, B. Chand, Nirmal Singh and P.N. Trehan;
 X-ray Spectrometry 22 (1993) 358-361. (I.F. 1.29, ISSN: 1097-4539) (Citations: 256)
- 8. A review bibliography and tabulation of K, L and higher atomic shell X-ray fluorescence yields.

 J.H. Hubbell, P.N. Trehan, Nirmal Singh, B. Chand, M.L. Garg, D. Mehta, R.R. Garg, S. Singh and Sanjiv Puri;

 J. Phys. Chem. Ref. Data 23 (1994) 339-364. (I.F 4.2, ISSN NO. 0047-2689) (Citations: 660)
- 9. K and L shell X-ray fluorescence cross sections.

 Sanjiv Puri, B. Chand, D. Mehta, M. L. Garg, Nirmal Singh and P.N. Trehan;

Atom. Data and Nucl. Data Tables 61 (1995) 289-311. (*IF 2.57, ISSN No. 0092-640X*) (Citations: 118)

10. Urban air pollution source apportionment using a combination of aerosol and gas monitoring techniques.E. Swietlicki, <u>Sanjiv Puri</u> and H.C. Hansson;

Atmosphere Environment 30 (1996) 2795-2809. (<u>I.F 3.629</u>, ISSN NO.1352-2310) (Citations: 192)

- 11. An evaluation of the sources of air pollution in the city of Chandigarh, India A study using EDXRF technique. H.K. Bandhu, <u>Sanjiv Puri</u>, J.S. Shahi, D. Mehta, M.L. Garg, P.C. Mangal, Nirmal Singh, E. Swietlicki and P.N. Trehan; Nucl. Instrum. and Methd. B114 (1996) 341-344. (IF 1.11, ISSN NO. 0168-583X) (Citations: 21)
- 12. Differential Cross-section Measurements for the Elastic Scattering of 59.5 keV Photons by Elements in the Atomic Region 13≤Z≤82.

<u>Sanjiv Puri</u>, D. Mehta, B. Chand, Nirmal Singh and P.N. Trehan Nucl. Instrum. and Methd. B111 (1996) 209-214 (*IF 1.11, ISSN NO. 0168-583X*)

13. The L_{γ1,5}, L_{γ2,3,6}, L_{γ4} and Lα and Lα XRF Cross sections for Elements with 71 ≤Z≤83 at 22.6 keV. <u>Sanjiv Puri</u>, D. Mehta, Nirmal Singh and P.N. Trehan

Phys. Rev. A 54 (1996) 617-623 (*IF 2.925*, *ISSN NO.1050-2947*) (Citations: 46)

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V. Vijavan, S.N. Behera, V.S. Ramamurthy, Sanjiv Puri, J.S. Shahi and Nirmal Singh
   X-ray Spectrometry 26 (1997) 65-68. (I.F. 1.29, ISSN: 1097-4539) (Citations: 75)
15. Elastic scattering of 22.1 keV photons by elements in the atomic region 12 \le Z \le 92.
   J.S. Shahi, Sanjiv Puri, D. Mehta, Nirmal Singh and P.N. Trehan;
   Phys. Rev. A55 (1997) 3557-3565 (IF 2.925, ISSN NO.1050-2947) (Citations: 20)
16. Monitoring of urban air pollution using EDXRF technique.
   H.K. Bandhu, Sanjiv Puri, M.L. Garg, J.S. Shahi, D. Mehta, P.C. Mangal, Nirmal Singh and P.N. Trehan
   Radiat, Phys. Chem. 5 (1998) 625-626 (IF 1,20, ISSN No. 0969-806X)
17. Elemental analysis of polymetallic mangnese nodules from Central Indian Basin - A study using EDXRF technique.
   Sanjiv Puri, J.S. Shahi, B. Chand, M.L. Garg, Nirmal Singh, P.N. Trehan and N. Nath
   X-ray Spectrometry 27 (1998) 105-110 (I.F. 1.29, ISSN: 1097-4539).
18. Large angle elastic scattering of 59.54 keV photons by elements with 12 \le \mathbb{Z} \le 92.
   J.S. Shahi, Sanjiv Puri, D. Mehta, Nirmal Singh and P.N. Trehan;
   Phys. Rev. A57 (1998) 4327-4334. (IF 2.925, ISSN NO.1050-2947) (Citations: 26)
19. Photon induced L x-ray production differential cross sections in Th at 22.6 keV. Sanjiv Puri, D. Mehta, J.S. Shahi,
   M.L. Garg, Nirmal Singh, P.N. Trehan;
   Nucl. Instrum, and Methods B 152 (1999) 19 (IF 1.11, ISSN NO. 0168-583X) (Citations: 23)
20. Angular-dependence of L x-ray production cross sections in uranium at 22.6- and 59.5-keV photon energies.
   D. Mehta, Sanjiv Puri, Nirmal Singh, M.L. Garg, P.N. Trehan;
   Phys. Rev. A59 (1999) 2723 (IF 2.925, ISSN NO.1050-2947) (Citations: 54)
21. Angular dependence of L X-ray emission in Pb following photoionisation at 22.6 and 59.5 keV.
    Ajay Kumar, Sanjiv Puri, D. Mehta, M.L. Garg and Nirmal Singh;
    J. Phys. B 32 (1999) 3701 (IF 1.792, ISSN NO. 0953-4075) (Citations: 30)
22. Elemental composition and sources of air pollution in city of Chandigarh, India, using EDXRF and PIXE techniques.
   H.K. bandhu, Sanjiv Puri, M.L. Garg, B.Singh, J.S. Shahi, D.Mehta, Erik Swiet; icki, D.K. Dhawan and Nirmal Singh;
   Nucl. Instrum. and Methds. B 160 (2000) 126 (IF 1.11, ISSN NO. 0168-583X) (Citations: 67)
23. K and L x-ray production cross sections and intensity ratios of rare earth elements for proton impact in the energy
   range 20-25 MeV.
   M. Hajivaliei, Sanjiv Puri, M.L. Garg, D.Mehta, A. Kumar, K.P. Singh, Nirmal Singh and I.M. Govil.
   Nucl. Instrum. and Methds. B 160 (2000) 203 (IF 1.11, ISSN NO. 0168-583X) (Citations: 26)
24. L X-ray production cross sections for Th and U at 17.8, 25.8 and 46.9 keV photon energies.
   Ajay Kumar, Sanjiv Puri, J.S. Shahi, M.L. Garg, D. Mehta and Nirmal Singh;
   J. Phys. B 34 (2001) 613 (IF 1.792, ISSN NO. 0953-4075) (Citations: 27)
25. Incoherent scattering of 59.5 keV photons by elements with 13 \le Z \le 82.
    J.S. Shahi, Ajay Kumar, D. Mehta, Sanjiv Puri, M.L. Garg and Nirmal Singh.
    Nucl. Instrum and Methd. B 179 (2001) 15 (IF 1.11, ISSN NO. 0168-583X) (Citations: 33)
26. Angular dependence of L_3 x-ray emission following L_3 sub-shell photo-ionisation in Pb.
    Ajay Kumar, M.L. Garg, Sanjiv Puri, D. Mehta and Nirmal Singh
    X-Ray Spectrometry 30 (2001) 287 (I.F. 1.29, ISSN: 1097-4539)
27. Large-angle elastic scattering of 88.03 keV photons by elements with 30 \le \mathbb{Z} \le 92.
   Ajay Kumar, J.S. Shahi, M.L. Garg, Sanjiv Puri, D. Mehta and Nirmal Singh
   Nucl. Instrum and Methd. B 183 (2001) 178 (IF 1.11, ISSN NO. 0168-583X)
28. Inelastic scattering of 88.03 keV photons by elements with 4≤Z≤83.
   Ajay Kumar, J.S. Shahi, M.L. Garg, Sanjiv Puri, D. Mehta and Nirmal Singh
    J. Phys. B 34 (2001) 3555 (IF 1.792, ISSN NO. 0953-4075)
29. Comments on L_2 subshell Coster-Kronig yield at Z=76 and 81.
   Ajay Kumar, Sanjiv Puri, D. Mehta and Nirmal Singh.
   Nucl. Instrum and Methd. B 183 (2001) 227 (IF 1.11, ISSN NO. 0168-583X)
30. L_1-L_3 Coster-Kronig and Li (I=1,2,3) subshell fluorescence yields for Th and U.
    Ajay Kumar, Sanjiv Puri, M.L. Garg D. Mehta and Nirmal Singh
    X-Ray Spectrometry 31 (2002) 103 (I.F. 1.29, ISSN: 1097-4539)
31. L_1-L_3 sub-shell Coster-Kronig yield for Pb.
    Ajay Kumar, Sanjiv Puri, B.K. Arora, D. Mehta and Nirmal Singh
    X-Ray Spectrometry 31 (2002) 310 (I.F. 1.29, ISSN: 1097-4539)
32. Differential cross section measurements for inelastic scattering of 22.1 keV photons by elements with 4≤Z≤69.
    Ajay Kumar, J.S. Shahi, Sanjiv Puri, D. Mehta and Nirmal Singh.
    Nucl. Instrum and Methds. B 194 (2002) 99 (IF 1.11, ISSN NO. 0168-583X)
33. Large angle elastic and inelastic scattering of 14.93 keV photons.
    P. Singh, D. Mehta, S. Kumar, M. Sharma, Sanjiv Puri, J. S. Shahi and N. Singh
```

14. Elemental composition of fly ash from a coal fired thermal power plant - A study using PIXE and EDXRF.

Puri/Phys/Pbi. Univ. Page 8

Nucl. Instrum. and Methd. B 222 (2004) 1 (IF 1.11, ISSN NO. 0168-583X)

34. *L1-L3 Coster-Kronig yields for elements with 70≤Z≤92.*

Manju Sharma, P. Singh, Sanjiv Puri, D. Mehta and Nirmal Singh

Phys. Rev. A69 (2004) 032501 (IF 2.925, ISSN NO.1050-2947)

35. L1-L3 Coster-Kronig yields for elements with $70 \le Z \le 92$.

Manju Sharma, P. Singh, Sanjiv Puri, D. Mehta and Nirmal Singh

Phys. Rev. A69 (2004) 032501(IF 2.925, ISSN NO.1050-2947)

36. Probabilities for radiative vacancy transfer from Li(i=1,2,3) sub-shells to M, N and higher shells for elements with $77 \le Z \le 9$.

Manju Sharma, Sanjeev Kumar, Prem Singh, Sanjiv Puri, and Nirmal Singh

J. of Phy. and Chem. of Solids 66 (2005) 2220.

37. *M*ξ, *M*αβ, *M*γ and *M*_m x-ray production cross sections for elements with 71≤Z≤92 at 5.96 keV photon energy M. Sharma, V. Sharma, S. Kumar, *Sanjiv Puri* and Nirmal Singh.

Radiation Phys. and Chem. 75 (2006) 1503 (IF 1.20, ISSN No. 0969-806X)

38. Recent experimental studies of photon-atom scattering in x-ray energy region.

Nirmal Singh and Sanjiv Puri.

Radiation Phys. and Chem. 75 (2006) 2221 (IF 1.20, ISSN No. 0969-806X)

39. $L_i(i=1-3)$ sub-shells fluorescence and Coster-Kronig yields for elements with $70 \le Z \le 92$.

Sanjiv Puri and Nirmal Singh.

Radiation Phys. and Chem. 75 (2006) 2232 (IF 1.20, ISSN No. 0969-806X) (Citations: 21)

40. Relative intensities for the L_i (i=1-3) and M_i (i=1-5) subshell x-rays.

Sanjiv Puri

Atom. Data Nucl. Data Tables 93 (2007) 730 (IF 2.57, ISSN No. 0092-640X) (Citations: 44)

41. $M_i(i=1-5)$ subshell fluorescence and Coster Kronig yields for elements with $67 \le Z \le 92$.

Yogeshwar Chauhan and Sanjiv Puri

Atom. Data Nucl. Data Tables 94 (2008) 38 (IF 2.57, ISSN No. 0092-640X) (Citations: 50)

42. Li (i=1-3) subshell x-ray production cross sections and fluorescence yields for some elements with $56 \le Z \le 68$.

Yogeshwar Chauhan, M.K. Tiwari and Sanjiv Puri

Nucl. Instrum. and Methds. B266 (2008) 30 (IF 1.11, ISSN NO. 0168-583X)

43. M-shell X-ray production cross sections for elements with $67 \le Z \le 92$ at incident photon energies $E_{MI} < E_{inc} \le 150$ keV.

Yogeshwar Chauhan, Anil Kumar and Sanjiv Puri

Atom. Data Nucl. Data Tables 95 (2009) 475 (IF 2.57, ISSN No. 0092-640X)

44. $L_i(i=1-3)$ sub-shell X-ray Relative Intensities for some Elements.

Anil Kumar, Yogeshwar Chauhan and Saniiv Puri

Asian Journal of Chemistry 21 (2009) S309

45. Measurements of L_1 and L_2 Subshell Fluorescence Yields for Dy at 22.6 keV Incident Photon Energy.

Anil Kumar and Sanjiv Puri

Asian Journal of Chemistry 21 (2009) S314

46. Incident photon energy and Z dependence of L X-ray relative intensities.

Anil Kumar, Yogeshwar Chauhan, and Sanjiv Puri

Atom. Data Nucl. Data Tables 96 (2010) 567(IF 2.57, ISSN No. 0092-640X)

47. L_1 and L_2 sub-shell fluorescence yields for elements with $64 \le Z \le 70$

Anil Kumar and Sanjiv Puri

Nucl. Instrum. and Methds. B 268 (2010) 1546 (IF 1.11, ISSN NO. 0168-583X)

48. Chemical effects on the Li(i=1-3) sub-shell X-ray relative intensities for some compounds of Hg.

Anil Kumar and Sanjiv Puri,

Radiation Physics and Chemistry 80 (2011) 1166 (IF 1.20, ISSN No. 0969-806X)

 $49. \ Physical\ parameters\ for\ atomic\ inner-shell\ photoionization\ processes\ and\ analytical\ applications:\ a\ status\ report.$

Sanjiv Puri,

X-Ray Spectrom. 40 (2011) 348 (I.F. 1.29, ISSN: 1097-4539) (Citations: 15)

50. Li(i=1-3) sub-shell X-ray relative intensities for some compounds of ⁶⁶Dy at 22.6 and 59.5 keV incident photon

Anil Kumar and Sanjiv Puri

Radiation Physics and Chemistry 81 (2012) 735 (IF 1.20, ISSN No. 0969-806X)

51. Theoretical X-ray relative intensities at incident photon energies across $L_i(i=1-3)$ absorption edges for Yb.

Sanjiv Puri

Int. J. of Engg. Res. and Tech. (2013) 93 (ISSN NO. 2278-0181)

52. Measurements of Resonant Raman scattering Differential Cross sections for 74W using Synchrotron radiation.

Anil Kumar, M.K. Tiwari, G.S. Lodha and Sanjiv Puri

Int. J. of Engg. Res. and Tech. (2013) 95 (ISSN NO. 2278-0181)

53. X-ray relative intensities at incident photon energies across the $L_i(i=1-3)$ absorption edges of elements with $35 \le Z \le 92$. Sanjiv Puri

Atom. Data Nucl. Data Tables 100 (2014) 847. (IF 2.57, ISSN No. 0092-640X)

54. Theoretical X-ray Production Cross Sections at Incident Photon Energies across $L_i(i=1-3)$ Absorption Edges of Br. Sanjiv Puri

AIP Conference Proceedings 1675, 030089 (2015); doi: 10.1063/1.4929305 (ISSN: 0094-243X)

55. X-ray production cross sections at incident photon energies across the Mi (i=1-5) edges of Th.

Rajnish Kaur, Shehla, Anil Kumar and Sanjiv Puri

AIP Conf. Proc. 1675, 030090 (2015); 10.1063/1.4929306 (ISSN: 0094-243X)

56. Effect of wave function on the proton induced L XRP cross sections for 62Sm and 74W Shehla, Rajnish Kaur, Anil Kumar, and Sanjiv Puri

AIP Conf. Proc. 1675, 030091 (2015); doi: 10.1063/1.4929307 (ISSN: 0094-243X)

57. Physical parameters for proton induced K-, L-, and M-shell X-ray production cross sections.

Shehla and Sanjiv Puri

Radiation Phys. and Chem. 127 (2016) 194 (IF 1.20, ISSN No. 0969-806X)

58. Measurements of X-ray production cross sections at photon energies across the Li(i = 1-3) sub-shell absorption edges of 74W and 76O susing synchrotron radiation

Rajnish Kaur, Anil Kumar, Manoj K. Tiwari and Sanjiv Puri

J. Electron Spectroscopy and Related Phenomenon 213 (2016) 22. (IF 1.56, ISSN 0368-2048)

59. Measurements of the L X-ray production cross sections for 74W at incident photon energies 12.1-13.0 keV using synchrotron radiation

Rajnish Kaur, Anil Kumar, M.K. Tiwari and Sanjiv Puri

International J. Pure and Appl. Phys. 13 (2017) 188 (ISSN: 0973-1776)

60. Parameterization of Proton Induced M_i (i=1-5) sub-shell X-ray Production Cross Sections

Shehla, Rajnish Kaur, Anil Kumar and Sanjiv Puri

International J. Pure and Appl. Phys. 13 (2017) 205 (ISSN: 0973-1776)

61. L₃ sub-shell X-ray production cross sections for 76Os at incident photon energies 10.9-12.7 keV using synchrotron photoionization method

Rajnish Kaur, Anil Kumar, M.K. Tiwari and Sanjiv Puri

International J. Pure and Appl. Phys. 13 (2017) 226 (ISSN: 0973-1776)

62. Measurements of mass attenuation coefficients and determination of photoionization cross sections at energies across the L_i (i=1-3) edges of $_{66}$ Dy

Rajnish Kaur, Anil Kumar, Janos Osan, M. Czyzycki, A. G. Karydas and Sanjiv Puri

Radiat. Phys. Chem. 136 (2017) 30 (IF 1.20, ISSN No. 0969-806X)

63. Measurements of the line resolved M-shell X-ray production cross sections for 79Au, 82Pb and 83Bi by 100 keV/u proton, C, N, O ions

Shehla, Ajay Kumar, C. Bagdia, Anil Kumar, D. Misra, Sanjiv Puri and L. C. Tribedi

Nucl. Instrum and Methd. B 399 (2017) 74 (IF 1.11, ISSN NO. 0168-583X)

64. Measurements of fluorescence and Coster-Kronig yields for 66Dy using synchrotron radiation induced selective photoionization method

Rajnish Kaur, Anil Kumar, M. Czyzycki, A. Migliori, A.G. Karydas and Sanjiv Puri

Nucl. Instru. And Methds. B 407 (2017) 210 (IF 1.11, ISSN NO. 0168-583X)

65. Synchrotron radiation induced X-ray production cross sections of 66Dy at energies across its Li (i=1-3) sub-shell absorption edges.

Rajnish Kaur, Anil Kumar, M. Czyzycki1, A. Migliori, A. G. Karydas and Sanjiv Puri

X-ray Spectrometry 47 (2018) 11 (I.F. 1.29, ISSN: 1097-4539)

66. Low-energy proton induced M X-ray production cross sections for 70Yb, 81Tl and 82Pb Shehla, A. Mandal, Madhushree, Ajay Kumar, Sanjiv Puri and L. C. Tribedi

Nucl. Instrum and Methd. B 426 (2018) 34 (IF 1.11, ISSN NO. 0168-583X)

67. Cascade Mi (i=1-5) sub-shell X-ray emission at incident photon energies across the Lj (j=1-3) sub-shell absorption edges of 66Dy

Rajnish Kaur, Anil Kumar, M. Czyzycki1, A. Migliori, A. G. Karydas and Sanjiv Puri

X-ray Spectrometry 47 (2018) 294 (I.F. 1.29, ISSN: 1097-4539)

68. M x-ray production cross-sections in 79Au and 83Bi induced by 50-300 keV protons

Anuvab Mandal, Shehla, M. Roy Chowdhury, Ajay Kumar, Sanjiv Puri and L.C. Tribedi

European Physical Journal D 72 (2018) 120 (I.F. 1.288, ISSN: 1434-6060)

69. A study of the influence of chemical environment on the L_i (i=1-3) sub-shell X-ray intensity ratios and the L_3 absorption-edge energy for some compounds of $_{66}$ Dy using synchrotron radiation

Rajnish Kaur, Anil Kumar, M. Czyzycki1, A. Migliori, A. G. Karydas and Sanjiv Puri

X-ray Spectrometry 48 (2019) 126 (I.F. 1.29, ISSN: 1097-4539)

70. Low energy carbon ion induced M X-ray relative intensities for 70Yb, 82Pb and 83Bi

Shehla, Ajay Kumar, Anil Kumar, Deepak Swamy Sanjiv Puri

Nucl. Instrum and Methd. B 458 (2019) 130 (IF 1.11, ISSN NO. 0168-583X)

71. Calibration Curves of K and L Spectral Lines of Elements 19≤ Z ≤ 92 in Standard Aqueous Solution with WDXRF Harpreet Singh Kainth, Tejbir Singh and Sanjiv Puri

AIP Conference Proceedings 2220 (2020) 140002 (ISSN: 0094-243X)

72. Chemical effect on Ly4 and Ly5 X-ray lines in Thallium complexes

Harpreet Singh Kainth, Amardeep Bharti, Deeksha Khandelwal, Tejbir Singh and Sanjiv Puri

Radiation Physics and Chemistry 176 (2020) 109088 (IF 2.2, ISSN No. 0969-806X)

73. Measurements of mass attenuation coefficients for 51Sb over energy region 4-14 keV using synchrotron radiation. Sandeep Kaur, Anil Kumar, M. Czyzycki1, A. G. Karydas and **Sanjiv Puri**

Radiation Physics and Chemistry 177 (2020) 109149 (IF 2.2, ISSN No. 0969-806X)

74. Experimental evidence of for onset of L_1 - L_3 M_5 transition at Z=75 through measurements of fluorescence and Coster-Kronig yields for W and Re

Vibha Ayri, Sandeep Kaur, Anil Kumar, M. Czyzycki1, A. G. Karydas and Sanjiv Puri

J. Anal. At. Spectrom., 36 (2021) 380 (IF 3.498, ISSN 1364-5544)

75. Experimental validation of theoretically predicted cutoff of L_1 - $L_3M_{4,5}$ transitions at Z=50 through measurements of fluorescence and Coster-Kronig yields for Sn and Sb

Sandeep Kaur, Vibha Ayri, Anil Kumar, M. Czyzycki1, A. G. Karydas and Sanjiv Puri Metrologia 58 (2021) 035002 (IF 3.05, ISSN 1681-7575)

76. Rapid elemental composition analysis of spinach samples employing wavelength dispersive X-ray fluorescence spectroscopy

Harpreet Singh Kainth, Tejbir Singh, Deeksha Khandelwal, Gurjeet Singh and Sanjiv Puri Spectroscopy Letters 54 (2021) 266 (I.F. 0.95, ISSN: 0038-7010)

77. Experimental L-series x ray production cross sections for Re by tuning synchrotron radiation across its L_i (i=1-3) sub-shell ionization thresholds

Vibha Ayri, Sandeep Kaur, Anil Kumar, M. Czyzycki1, A. G. Karydas and Sanjiv Puri

Radiation Phys. and Chem. 188 (2021) 109599 (IF 2.2, ISSN No. 0969-806X)

78. Study of Energy Shift in Ly1 X-ray Emission Lines of Thallium Complexes

Harpreet Singh Kainth, <u>Sanjiv Puri</u> and Deeksha Khandelwal

AIP Conference Proceedings 2352 (2021) 050013 (ISSN: 0094-243X, IF: 0.4)

79. To investigate the Universal behaviour of ${}^4He^{+q}$ ion induced M X-ray production cross sections Balwinder Singh, Shehla and <u>Sanjiv Puri</u>

AIP Conference Proceedings 2352 (2021) 050003 (ISSN: 0094-243X, IF: 0.4)

80. Influence of wave function on proton induced M XRP cross sections for 71Lu and 80Hg

Balwinder Singh, Anil Kumar and **Sanjiv Puri**

AIP Conference Proceedings 2352 (2021) 050012 (ISSN: 0094-243X, IF: 0.4)

81. Measurements of L X-ray Intensity Ratios for 51Sb at Incident Photon Energies across its $L_i(i=1-3)$ Edge Energies

Sandeep Kaur, Vibha Ayri, Anil Kumar, M. Czyzycki, A. G. Karydas and **Sanjiv Puri**

AIP Conference Proceedings 2352 (2021) 050002 (ISSN: 0094-243X, IF: 0.4)

82. Measurements of L X-Ray Intensity Ratios for 75Re at Incident Photon Energies across its L_i (i=1-3) Edge Energies

Vibha Ayri, Sandeep Kaur, Anil Kumar, M. Czyzycki, A. G. Karydas and Sanjiv Puri

AIP Conference Proceedings 2352 (2021) 050004 (ISSN: 0094-243X, IF: 0.4)

83. A Review, Tabulation and Parameterisation of M-series X-ray Production Cross sections for Proton and Helium Ion Impact

Balwinder Singh, Shehla and Sanjiv Puri

J. Phys. Chem. Ref. Data 50 (2021) 043106 (IF 3.727, ISSN: 0047-2689)

84. Experimental production cross sections for synchrotron radiation induced L-series X-rays of Sn and Sb at energies across their L_i (i=1-3) absorption edges

Sandeep Kaur, Vibha Ayri, Anil Kumar, M. Czyzycki1, A. G. Karydas and Sanjiv Puri

X-Ray Spectrometry 51 (2022) 15-25 DOI: 10.1002/xrs.3247 (I.F. 1.29, ISSN: 1097-4539)

85. Measurements of L-shell X-ray production cross sections for Sn and Sb using 6–14 keV synchrotron radiation Sandeep Kaur, Vibha Ayri, Anil Kumar, Mateusz Czyzycki, A.G. Karydas, Sanjiv Puri Nucl. Instrum and Methd. B 521 (2022) 33 (IF 1.37, ISSN NO. 0168-583X)

(XIII) Papers presented at National/International conferences/symposia and other reports

1. Physical parameters for LX-ray production cross-sections.

Sanjiv Puri, B. Chand, M.L. Garg, Nirmal Singh and P.N. Trehan.

Presented at 11th International conference on the applications of accelerators in research and industry Nov. 5-8, 1990, Denton, Texas USA.

2. Measurements of L X-ray fluorescence cross-sections and fluorescence yields for elements in the range $41 \le Z \le 52$ at 5.96 keV.

R.R. Garg, <u>Sanjiv. Puri</u>, S. Singh, D. Mehta, M.L. Garg, J.S. Shahi, Nirmal Singh and P.N. Trehan. Presented at NSRP-9 held at Hyderabad from Nov. 27-29, 1991.

3. An evaluation of sources of urban air pollution in the city of Lund, Sweden - A combination of PIXE and DOAS techniques and gas monitoring.

Sanjiv Puri, E. Swietlicki, H.C. Hansson and H. Edner;

Lund Institute of technology, Lund, Sweden. Report No.LUTFD2/(TFKF3075) 26 (1993).

4. Analysis of Aerosol Samples from Chandigarh, Using EDXRF Technique.

H.K. Bandhu, J.S. Shahi, Sanjiv Puri, D. Mehta, M.L. Garg, Nirmal Singh,

P.C. Mangal and P.N. Trehan.

Presented at 11th NSRP held at Panjabi University, Patiala from 26-29 Oct.,1995.

5. Fluorescence cross sections for K and L shell X-rays.

Sanjiv Puri, B. Chand, D. Mehta, M.L. Garg, Nirmal Singh and P.N. Trehan.

Presented at 11th NSRP symposium to be held at Panjabi University, Patiala from 26-29 Oct.,1995.

6. Monitoring of urban air pollution using EDXRF technique.

H.K. Bandhu, M.L. Garg, Sanjiv Puri, J.S. Shahi, D. Mehta, N. Singh & P.N. Trehan

Presented at 7th ISRP, held at Jaipur, India from Feb. 24-18, 1997.

7. Elastic scattering cross sections for some elements in the atomic region 12<Z<92 at 22.1 keV incident photon energy.

J.S. Shahi, Sanjiv Puri, D. Mehta, M.L. Garg, Nirmal Singh and P.N. Trehan

Presentation at 7th ISRP held at Jaipur, India on Feb. 24-18, 1997.

8. X-ray emission techniques for material composition analysis.

Sanjiv Puri

Presented at the National Seminar on "Material Science: Trends and Future" MSTF-2000 held at SLIET, Longowal, Sangrur (Distt.) on 24-25 Feb., 2000.

9. Differential inelastic scattering cross sections for some elements with 4≤Z≤83 at 88.03 keV incident photon energy.

Ajay Kumar, J.S. Shahi, M.L. Garg, Sanjiv Puri, D. Mehta and Nirmal Singh

Presented at Symposium on Radiation Physics (SPM-7) held at Punjabi University, Patiala, India on 26-27, March, 2001.

10. L-shell Coster Kronig yields for Pb, Th and U.

Ajay Kumar, M.L. Garg, Sanjiv Puri, D. Mehta, B.K. Arora and Nirmal Singh

Presented at National Symposium on Radiation Physics (NSRP-14) held at Guru Nanak Dev University, Amritsar, India on 1-3 Nov., 2001.

11. Measurements of scattering cross sections for the 14.93 keV photons at an angle of 133 $^{\circ}$.

Manju Sharma, Sanjiv Puri, Sanjeev Kumar and Nirmal Singh

Proc. NSRP-15 (2003) 46.

12. Measurements of elastic and inelastic (Compton and RRS) cross sections

P.Singh, Ajay Kumar, J.S. Shahi, *Sanjiv Puri*, D. Mehta and Nirmal Singh *Proc. NSRP-15 (2003) 47*.

13. L1-L3 Coster-Kronig yields for elements with $70 \le Z \le 92$.

Manju Sharma, P. Singh, *Sanjiv Puri*, J.S. Shahi, D. Mehta and Nirmal Singh *Proc. NSRP-15 (2003) 50*.

14. Probabilities for radiative vacancy transfer from Li subshells to the M and N shells for some heavy elements.

Manju Sharma, <u>Sanjiv Puri</u>, Sanjeev Kumar and Nirmal Singh

Proc. NSRP-15 (2003) 55.

15 M_{χ} , $M_{\alpha\beta}$, M_{η} , M_m X-ray fluorescence cross sections for elements with 71 \leq Z \leq 90.

Manju Sharma, Veena Sharma, Sanjeev Kumar, Sanjiv Puri, and Nirmal Singh.

Presented in NSRMA-2004 held at Punjabi University, Patiala in Nov., 2004.

16. L_i (i=1-3) subshell Coster-Kronig yields measured using photoionization method.

Sanjiv Puri

Proc. LSRP-06 (2006).

17. The $L\alpha$, $L\gamma_{1,5}$ and $L\gamma_{2,3,4}$ x-ray production cross sections for elements with $56 \le Z \le 68$ at 22.6 keV incident photon energy.

Yogeshwar Chauhan, M.K. Tiwari and Sanjiv Puri.

Proc. NCAMP-XVI (2007) 76.

18. $M_j(j=1-5)$ subshell vacancy production following K and L shell vacancy decay.

Yogeshwar Chauhan and Sanjiv Puri

Proc. NCAMP-XVI (2007) 77.

19. M shell fluorescence and Coster-Kronig yields.

Yogeshwar Chauhan and Sanjiv Puri

Proc. SRSDA07 (2007) 28.

20. M-shell x-ray production cross sections for some heavy elements at incident photon energies ranging $E_{MI} < E_{inc} < 150 \text{keV}$.

Yogeshwar Chauhan, and Sanjiv Puri.

Proc. NSRM08 (2008) 53.

21. Li(i=1-3) subshell x-ray relative intensities for some heavy elements.

Anil Kumar, Yogeshwar Chauhan and Sanjiv Puri

Proc. AMRP09 (2009) 78.

22. Measurements of L_1 and L_2 subshell fluorescence yields for Dy at 22.6 keV incident photon energy.

Anil Kumar and Sanjiv Puri

Proc. AMRP09 (2009) 79.

23. Measurements of XRP cross sections and fluorescence yields for Yb at 22.6keV incident photon energy.

Anil Kumar and Sanjiv Puri.

Proc. NTSD-09 (2009) 98.

24. L_i (i=1, 2) Sub-shell Fluorescence Yields for Rare-earth Elements.

Sanjiv Puri, Anil Kumar and Yogeshwar Chauhan.

Proc. XRF2010 (2010) 55.

25. Measurements of XRP cross sections and Li (i=1,2) sub-shell fluorescence yields for Ho at 22.6 keV incident photon energy.

Anil Kumar and Sanjiv Puri.

Proc. AISAMP-9, 2010, 116.

26. Energy dependence of $L_i(i=1-3)$ sub-shell X-ray relative intensities of Dy.

Anil Kumar and Sanjiv Puri, ,

Proc. NSRPN-11, 2011, 29.

27. Current status of physical parameters for L and M shell x-ray production cross sections and intensity ratios.

Sanjiv Puri

Proc. NSRPN-11, 2011, 28.

28. Measurements of the $L_i(i=1-3)$ sub-shell x-ray relative intensities for some compounds of Hg at 22.6 keV.

Anil Kumar and Sanjiv Puri

Proc. NSRPN-11, 2011, 30.

29. Affects of Herbicide on soil and vegetation – A study using EDXRF Technique.

Yogeshwar Chauhan, Anil Kumar and Sanjiv Puri.

Proc. NSRPN-11, 2011, 31.

30. Measurements of XRP cross sections and Li (i=1,2) sub-shell fluorescence yields for Gd at 22.6 keV incident photon energy.

Anil Kumar and Sanjiv Puri.

Proc. PSC-14, 2011, 144.

31. Chemical effects on $L_i(i=1-3)$ sub-shell x-ray relative intensities for Dy.

Anil Kumar and Sanjiv Puri

Proc. PSC-14, 2011, 157.

32. Chemical effects on $L_i(i=1-3)$ sub-shell x-ray relative intensities for some compounds of Hg at 22.6 keV.

Anil Kumar and Sanjiv Puri

Proc. ICPEAC-XXVII, 2011, MO-105.

34. *Measurements of the Li*(i=1-3) *sub-shell intensity ratios for Ce at 22.6 keV incident photon energy.*

Sanjiv Puri and Anil Kumar

Proc. AMRP-11, 2011

35. Elemental analysis of lubricating oil used in petrol engine using EDXRF technique.

Anil Kumar, Gurjeet Singh and Sanjiv Puri

Proc. AMRP-11, 2011

36. Measurements of the Li(i=1-3) sub-shell intensity ratios for W at 15 keV incident photon energy.

Anil Kumar, M.K. Tiwari and Sanjiv Puri

Proc. ETPEMM-12, 2012, 107

37. Theoretical X-ray relative intensities at incident photon energies across Li(i=1-3) absorption edges for Yb. Sanjiv Puri

Proc. AMRP-2013, (2013) 79

38. Measurements of resonant Raman scattering differential cross sections for W using synchrotron radiation.

Anil Kumar and Sanjiv Puri

Proc. AMRP-2013, (2013) 80

39. Theoretical X-ray Production Cross Sections at Incident Photon Energies across L_i (i=1-3) Absorption Edges of Br.

Sanjiv Puri

Proc. AMRP-2015, (2015)

40. Measurements of the LX-ray production cross sections for 74W at incident photon energies 12.1-13.0 keV using synchrotron radiation

Rajnish Kaur, Anil Kumar, M.K. Tiwari and Sanjiv Puri

Proc. National Conference on research trends in Physics and Electronics (NPE-2016)

41. Parameterization of Proton Induced M₁ (I=1-5) sub-shell X-ray Production Cross Sections

Shehla, Rajnish Kaur, Anil Kumar and Sanjiv Puri

Proc. National Conference on research trends in Physics and Electronics (NPE-2016)

42. L₃ sub-shell X-ray production cross sections for 76Os at incident photon energies 10.9-12.7 keV using synchrotron photoionization method

Rajnish Kaur, Anil Kumar, M.K. Tiwari and Sanjiv Puri

Proc. National Conference on research trends in Physics and Electronics (NPE-2016)

43. Measurements of the L_i (i=1-3) sub-shell X-ray relative intensities for $_{76}Os$ using synchrotron radiation

Rajnish Kaur, Anil Kumar, M.K. Tiwari and Sanjiv Puri

Proc. NCAMP XXI (2017) 88

44. Low velocity O⁶⁺ ion induced M_i sub-shell X-ray production cross sections for 79Au, 82Pb and 83Bi

Shehla, Ajay Kumar, Anil Kumar, C. Bagdia, L. C. Tribedi and Sanjiv Puri

Proc. NCAMP XXI (2017) 97

45. Cross sections for production of the M_j (j=1-5) subshell X-rays of $_{79}$ Au, $_{82}$ Pb and $_{83}$ Bi produced by 100 keV proton impact

Shehla, Ajay Kumar, Anil Kumar, C. Bagdia, L. C. Tribedi and Sanjiv Puri

Proc. NCAMP XXI (2017) 169

46. *M-shell x ray production cross sections by proton impact on* 81*Tl.*

Shehla. A. Mandal, Madhushree, Ajay Kumar, Anil Kumar, Sanjiy Puri and L.C. Tribedi

Proc. National Symposium on Radiation Physics (NSRP-21) (2018) 164

47. Parameterization of Proton Induced K shell X-ray Production Cross Sections for Z = 22-40

Shehla and Sanjiv Puri

Proc. National Symposium on Radiation Physics (NSRP-21) (2018) 166

48. Measurements of L1 to L3 subshell Coster-Kronig transition probability for 66Dy

Rajnish Kaur, Anil Kumar, M. Czyzycki1, A. Migliori, A. G. Karydas and Sanjiv Puri

Proc. National Symposium on Radiation Physics (NSRP-21) (2018) 165

49. Li (i=1-3) subshell X ray intensity ratios for $_{66}$ Dy using synchrotron radiation

Rajnish Kaur, Anil Kumar, M. Czyzycki1, A. Migliori, A. G. Karydas and Sanjiv Puri

Proc. National Symposium on Radiation Physics (NSRP-21) (2018) 167

50. M_i (i=1-5) sub-shell X-ray production cross section measurements at photon energies in vicinity of the Lj (j=1-3) sub-shell absorption edge energies of 66Dy

Rajnish Kaur, Anil Kumar, M. Czyzycki1, A. Migliori, A. G. Karydas and Sanjiv Puri

Presented in the European Conference on X-Ray Spectrometry (EXRS-2018), Ljubljana, 24-29 June, 2018

51. M X-ray production cross sections by 100-250 keV proton Impact of 70Yb.

Shehla, A. Mandal, Ajay Kumar, M. Roy Chowdhury, L. C. Tribedi and Sanjiv Puri,

13th Asian International Seminar on Atomic and Molecular Physics, December 03-08, 2018. e-Book of Abstracts PB 41, Page no. 153

52. Parameterization of Proton Induced K X-Ray Production Cross Sections for Z=42-70.

Shehla, Balwinder Singh and Sanjiv Puri.

Proc. NSRP-22, Nov 8-10, 2019, 69

53. Energy dependence of the line resolved M i (i=1-5) sub-shell X-ray production cross section & intensity ratio for 82Pb Sandeep Kaur, Vibha Ayri, Anil Kumar and Sanjiv Puri

NSRP-22, Nov. 8-10, 2019, 27

54. Mi(i=1-5) sub-shell X-ray production cross-sections for 75 Re at incident photon energies 1.8<E $_{inc}<$ 60 keV Vibha Ayri, Sandeep Kaur, Anil Kumar and Sanjiv Puri

NSRP-22, Nov. 8-10, 2019, 28

55. Low energy N⁷⁺ ion induced Mj sub-shell X-ray production cross sections for 79Au, 82Pb and 83Bi Shehla, Ajay Kumar, Anil Kumar, C. Bagdia, L.C. Tribedi and Sanjiv Puri NSRP-22, Nov. 8-10, 2019

56. MX-ray relative intensities for 70Yb by C ion impact

Shehla, Ajay Kumar, Anil Kumar, D. Swami and Sanjiv Puri

NSRP-22, Nov. 8-10, 2019

57. Measurements of L X ray Intensity Ratios for 51Sb at Incident Photon Energies across its Li(i=1-3) Edge Energies Sandeep Kaur, Vibha Ayri, Anil Kumar, M. Czyzycki, A. G. Karydas and Sanjiv Puri Proc. AMRP-2020. (2020) 119

58. To investigate the universal behavior of ${}^4He^{+q}$ ion induced M X-ray production cross sections

Balwinder Singh, Shehla and Sanjiv Puri

Proc. AMRP-2020, (2020) 120

59. Measurements of L X-Ray Intensity Ratios for 75Re at Incident Photon Energies across its Li (i=1-3) Edge Energies. Vibha Ayri, Sandeep Kaur, Anil Kumar, M. Czyzycki, A.G. Karydas and Sanjiv Puri Proc. AMRP-2020, (2020) 120

60. Influence of wave function on proton induced M XRP cross sections for 71Lu and 80Hg

Balwinder Singh, Anil Kumar and Sanjiv Puri

Proc. AMRP-2020, (2020) 125

61. Study of Energy Shift in Ly1 X-ray Emission Lines of Thallium Complexes

Harpreet Singh Kainth, Sanjiv Puri and Deeksha Khandewal

Proc. AMRP-2020, (2020) 126

- 62. Experimentally Revisited X-ray Fundamental Parameters at XRF beamline of Elettra Sincrotrone, Trieste A. G. Karydas, Vibha Ayri, Sandeep Kaur, M. Czyzycki, Giuliana Aquilanti, A. Migliori and Sanjiv Puri European conference on X-ray analysis (EXRS-2022), held in Bruges, Belgium during 26 June to 1 July 2022. https://www.uantwerpen.be/en/conferences/exrs/
- 63. *Influence of cascade vacancy decay on the average M-shell Fluorescence Yield for Rhenium* Vibha Ayri, Mateusz Czyzycki, Anil Kumar, Andreas Karydas, <u>Sanjiv Puri</u> European conference on X-ray analysis (EXRS-2022), held in Bruges, Belgium during 26 June to 1 July **2022**. https://www.uantwerpen.be/en/conferences/exrs/
- 64. *M X-ray production cross-sections in 81Pb and 83Bi induced by nitrogen ions*.

 Balwinder Singh, Shehla, Anil Kumar, Deepak Swami, Ajay Kumar and Sanjiv Puri

 7th International Conference on Ion beams in Materials Engineering and Characterization (**7-IBMEC**), at Inter University Accelerator Centre (IUAC), New Delhi on 16 19 November, 2022.
- 65. Measurements of Line Resolved M-shell X-ray Production Cross Sections for 79Au and 81Tl by N⁹⁺ Ion Beam.

Balwinder Singh, Shehla, Anil Kumar, Deepak Swami, Ajay Kumar and <u>Sanjiv Puri</u> NAARRI International Conference NICSTAR-2023 held at Lulu Bolgatty International Convention Center (LBICC), Kochi, Kerala, India, on January 09-12, 2023.

66. L-shell Average Fluorescence Yield for 75Re using Synchrotron Raditation.

Vibha Ayri, Sandeep Kaur, Anil Kumar, M. Czyzycki, A.G. Karydas and <u>Sanjiv Puri</u>

NAARRI International Conference NICSTAR-2023 at Lulu Bolgatty International Convention Center (LBICC), Kochi, Kerala, India, on January 09-12, 2023.

67. Synchrotron Radiation Induced L X-ray Intensity Ratios for 72Hf.

Harpreet Singh, Vibha Ayri, H. S. Kainth, A.G. Karydas and Sanjiv Puri,

NAARRI International Conference NICSTAR-2023 at Lulu Bolgatty International Convention Center (LBICC), Kochi, Kerala, India, on January 09-12, 2023.

- 68. Influence of Multiple Ionization on M-shell Fluorescence and Coster-Kronig Yields of 79Au and 83Bi for Cabon Ion Impact,
 - Balwinder Singh and Sanjiv Puri
 - 23rd National Conference on "Atomic and Molecular Physics" at IIST, Trivandrum, Kerala, India, on February 20-23, 2023.
- 69. Influence of Multiple Ionization on M-shell Fluorescence and Coster-Kronig Yields of 70Yb for Nitrogen Ion Impact,
 - Balwinder Singh and Sanjiv Puri,
 - One Day National Seminr on Condensed Matter Physics and Materials at Punjabi University, Patiala, Punjab, India on 8th May.
- 70. Measurements of L X-ray Branching Ratios for 75Re at Incident Photon Energies across its L_i(i=1-3) Edge Energies.
 - Vibha Ayri, Sandeep Kaur, Harpreet Singh, Anil Kumar, M. Czyzycki, A.G. Karydas and <u>Sanjiv Puri</u> One Day National Seminr on Condensed Matter Physics and Materials *at Punjabi University, Patiala, Punjab, India on 8th May*.
- 71. Measurements of Mass-Attenuation Coefficients for 51Sb at Photon Energies across its L3 Sub-Shell Absorption Edge.
 - Sandeep Kaur, Vibha Ayri, Anil Kumar, M. Czyzycki, A.G. Karydas and Sanjiv Puri.
 - One Day National Seminr on Condensed Matter Physics and Materials at Punjabi University, Patiala, Punjab, India on 8th May.
- 72. Study of Multiple Ionization Effects on Nitrogen Ion Induced M X-Ray Emission for 82Pb and 83Bi, Balwinder Singh and Sanjiv Puri
 - 6th National Conference on Advanced Materials and Radition Physics (AMRP-2023) at SLIET Longowal, Punjab, India, on 18-19 May.
- 73. $M_j(j=1-5)$ Sub-shell Vacancy Distribution Produced Following Decay of $L_i(i=1-3)$ Subhell Vacancies, Vibha Ayri, Sandeep Kaur, Anil Kumar, M. Czyzycki, A.G. Karydas and **Sanjiv Puri** 6th National Conference on Advanced Materials and Radition Physics (AMRP-2023) at SLIET Longowal, Punjab, India, on 18-19 May.
- 74. *Measurements of LM Resonant Raman Scattering Cross Sections for Sn using Synchrotron Radiation*. Sandeep Kaur, Vibha Ayri, Anil Kumar, M. Czyzycki, A.G. Karydas and **Sanjiv Puri** 6th National Conference on Advanced Materials and Radition Physics (AMRP-2023) at SLIET Longowal, Punjab, India, on 18-19 May.
- 75. Average fluorescence yields for 50Sn and 51Sb.
 Anil Kumar, Vibha Ayri, Sandeep Kaur, M. Czyzycki, A. G. Karydas and Sanjiv Puri.
 6th National Conference on Advanced Materials and Radition Physics (AMRP-2023) at SLIET Longowal, Punjab, India, on 18-19 May.
- 76. Measurements of 72Hf L3-subshell fluorescence yield using synchrotron radiation.
 - Harpreet Singh, Vibha Ayri, A. G. Karydas and Sanjiv Puri.
 - 6th National Conference on Advanced Materials and Radition Physics (AMRP-2023) at SLIET Longowal, Punjab, India, on 18-19 May.

(XIV) Symposia/workshops and Orientation /Refresher courses/Summer Schools attended:

(a) Symposia/Conferences/workshops attended

(i) National

- (1) <u>National workshop</u> on Atomic physics with high energy heavy ions held at Banaras Hindu University, Varanasi from April 18-20, 1994.
- (2) <u>National Symposium</u> on radiation physics (NSRP-11) held at Punjabi University, Patiala from 26-29 Oct., 1995.
- (3) <u>National workshop</u> on "Regional PIXE Facility" sponsored by DST, N.Delhi, held at Panjab University, Chandigarh in Sept., 1999.
- (4) <u>National Seminar</u> on "Material Science: Trends and Future" MSTF-2000 held at SLIET, Longowal, Sangrur (Distt.) on 24-25 Feb., 2000.
- (5) <u>National workshop</u> on "15 UD pelletron facility at Chandigarh" sponsored by DST, N.Delhi, held at Panjab University, Chandigarh in July, 2000.
- (6) <u>National seminar</u> on "Computational techniques in physics" held at department of physics Panjab University, Chandigarh on 6-7 March, 2002.
- (7) <u>Punjab Science Congress</u> of the Punjab Academy of Sciences held at SLIET, Longowal from 7-9 Feb., 2003.
- (8) <u>National symposium</u> on Radiation measurements and applications (NSRMA) held at Punjabi University, Patiala during Nov., 2004.
- (9) <u>National conference</u> on "Lasers, smart materials and radiation physics" (LSRP-2006) held at SLIET, Longowal during March 17-18, 2006.
- (10) <u>Symposium</u> on "Radiation Sources, Detection and Applications" (SRSDA07) held at Punjabi University, Patiala during Feb. 5-6, 2007.
- (11) *National Symposium* on "Radiation and Materials" (NSRM08) held at department of Physics, Punjabi University, Patiala during March 10-11, 2008.
- (12) Attended *National Conference* on "Advanced Materials and Radiation Physics (AMRP09)" held at SLIET, Longowal during March 09-10, 2009.
- (13) Attended Indian Nuclear Society <u>National Seminar</u> on "Nuclear Technology for Sustainable development" (NTSD-09) held at Thapar University, Patiala during October 10-11, 2009.
- (14) Attended *National conference* on "X-ray fluorescence 2010" (XRF2010) held at Saha Institute of Nuclear Physics (SINP), Kolkata during 12-15 Jan., 2010.
- (15) Attended <u>National Symposium</u> on "Radiation Physics and Nanomaterials" (NSRPN-11) held at Department of Physics, Punjabi University, Patiala during Feb. 4-5, 2011.
- (16) Attended 14th Punjab Science Congress (PSC-14) held at SLIET, Longowal during Feb. 7-9, 2011.
- (17) Attended <u>National Conference</u> on "Advanced Materials and Radiation Physics (AMRP-11)" held at SLIET, Longowal during Nov. 4-5, 2011.
- (18) Attended <u>International Conference</u> on Emerging Trends in Physics for Environmental monitoring and management (ETPEMM-12) held at Department of Physics, Punjabi University, Patiala during Dec. 17-19, 2012.
- (19) Attended 3rd National Conference on Advanced Materials and Radiation Physics (AMRP-2013) held at SLIET, Longowal during Nov., 22-23, 2013.
- (20) Attended 4th National Conference on Advanced Materials and Radiation Physics (AMRP-2015) held at SLIET, Longowal during March 13-14, 2015.
- (21) Attended 5th *National e-Conference* on "Advanced Materials and Radiation Physics (AMRP-2020)" held at SLIET, Longowal during Nov. 9-11, 2020.
- (22) Attended 6th *National Conference* on "Advanced Materials and Radiation Physics (AMRP-2023)" held at SLIET, Longowal during May 18-19, 2023.

(ii) International

Attended <u>INDO-US workshop</u> on "New Directions in the study of interactions of Energetic photons with matter" sponsored by DST, India and NSF, USA held at University of North Bengal, Darjeeling from 22-27 March, 2004.

(b) International Summer School attended:

<u>One month summer school</u> on "Synchrotron Radiations" held at *The Abdus Salam International Center for Theoretical Physics, Trieste, Italy* during 19 April-22 May, 1999.

(c) Orientation /Refresher/short-term courses attended:

- (1) Orientation course at Academic staff college, Panjab University, Chandigarh in Dec., 1996.
- (2) <u>Two Refresher courses</u> in **Physics** held at Panjab University, Chandigarh in July, 1998 and June, 2001, respectively.
- (3) <u>Short term course</u> on "Optical fiber and its applications" held at NITTTI, Sec-26, Chandigarh during Jan., 2004.
- (4) Short term course on "Lasers and its applications" held at NITTTI, Sec-26, Chandigarh during June, 2004.
- (5) Short term course on "Nanoparticles and their applications" held at NITTTR, Chandigarh from Nov., 2007.

Date: 20-09-2023 Sanjiv Puri