# **CURRICULUM VITAE**

# **PERSONAL DETAILS:**

Name: DR. SOME NATH DEY

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**Nationality:** Indian

**Date of Birth:** 29.12. 1975

## **Work Experience:**

- 1. Assistant Professor in Physics (WBES) at Darjeeling Govt. College. From 06<sup>th</sup> December 2013 to till date.
- 2. Assistant Professor and Head, Dept of Physics (WBES), Haldia Govt College. From 1<sup>st</sup> March 2007 to 5<sup>th</sup> December 2013.
- 3. Worked as Assistant Teacher in Physics at Sri Narayan Vidyabhawan Boys' High School, Midnapur-721101. From January 2001 to Feb 2007. By WB School Service Commission.
- 4. Research fellow at Department of Materials Science, Indian Association for the Cultivation of Science, Jadavpur, Under the Guidance of Prof. Siba Prasad Sengupta and Prof Sobodh Kumar De. From 2099 to 2006.

## **RESEARCH EXPERIENCE:**

- (1) Five and a half years of research experience in the field of materials science for microstructural characterization of plastically deformed metals, alloys and ball-milled nanomaterials by X-ray diffraction powder profile analysis and electron microscopic method at Dept. of Materials Science, I.A.C.S. Calcutta, India.
- (2) Six months project experience in the X-ray diffraction profile analysis on cold-worked Pb-Sn alloy at Dept. of Materials Science, I.A.C.S. Calcutta, India.
- (3) Completed UGC Sponsored Minor Research Project "Synthesis and Gas Sensing Properties of some Semi-conducting metal oxides and their Microstructural characterization"



## **RESEARCH INTEREST:**

- 1) Microstructural characterization of deformed metals and alloys by X-ray powder profile analysis.
- 2) Synthesis of nano-materials (Nickel Aluminides) prepared by ball-milling and characterized by X-ray diffraction, SEM and TEM.
- 3) Dislocation modelling of X-ray diffraction profiles.
- 4) Theoretical development of stacking fault energy calculation from X-ray powder profile modeling.
- 5) Recently we are trying to prepare fine scale synthesis of mixed Iron-oxide via chemical co-deposition method.

## **Instrumental Techniques and skills:**

- (a) X-ray powder Diffractometry.
- (b) High resolution X-ray Diffractometre
- (c) SEM., TEM., EDX.
- (d) Vacuum coating unit for deposition of thin films.
  - (e) Planetary Ball-Mill

#### **Academics:**

## 1. Academic degrees:

Degree	Institute /	Year	Subject
	University		
Ph.D. (Physics)	Dept. of Materials Science. Indian Association for the Cultivation of Science. Jadavpur.	2006	Study on Micro-structures of some poly crystal and nano- crystal materials by X-ray diffraction and microscopic method
Master of Science (M.Sc.) In Physics	Jadavpur University	1999	Physics Spl Paper: High Energy And Particle Physics
Bachelor of Science (B. Sc) In Physics	Vidyasagar University	1997	
Higher Secondary	W.B.C.O.H.S.E	1994	
Madhyamik	W.B.B.S.E	1992	

## 2. Academic awards:

- i) Qualified 'National Eligibility Test' conducted by Human Resource and development group, Govt. of India in-2000 and 2001
- ii) Qualified 'Graduate Aptitude Test in Engineering' conducted by Human Resource and development group, Govt. of India in-1999 and 2000

**Title of Ph.D. Thesis:** STUDY ON MICRO STRUCTURES OF SOME POLY CRYSTAL AND NANO CRYSTAL MATERIALS BY X-RAY DIFFRACTION AND MICROSCOPIC METHOD.

## **Member of Scientific Society:**

Life member of Indian Physical Society.

#### **PUBLICATIONS:**

- 1. Dislocation induced line-broadening in cold-worked Pb-Bi binary alloy system in the  $\alpha$ -phase using X-ray powder profile analysis. By **S.N.Dey**, P.Chatterjee, S.P.Sen Gupta. Acta Materialia vol-51 (2003) 4669-4677.
- 2. Microstructural investigation in plastically deformed and annealed copper using microstructural model. By **S.N.Dey**, P.Chatterjee and S.P.Sen Gupta. Journal of physics D, Applied physics. vol-38 (2005) 1444-1449.
- 3. Study of deformation stacking faults and dislocation microstructures in Cu-1Sn-Zn alloys. By **S.N.Dey**, P.Chatterjee and S.P.Sen Gupta. Acta Materialia vol-53 (2005) 4635-4642.
- 4. Deformation stacking fault probability and dislocation microstructure of cold worked Cu-Sn-5Zn alloys by X-ray diffraction line profile analysis. By **S.N.Dey**, P.Chatterjee and S.P.Sen Gupta. J. Appl. Phys. Vol-100 (2006).
- 5. A New Method For The Determination of Stacking Fault Energy Of Pure Metals by X-ray diffraction By P.Chatterjee, **S.N.Dey** . FIZIKA A (Zagreb) 19 (2010) 4, 165–170.
- 6. Early Evolution of Quantum Mechanics: A Brief Story. By **S.N.Dey** and U Dutta AUREOLE, Assigned by The National Institute of Science Communication and Information Research, India (ISSN 0976-9625) (2014) 13-19.
- 7. Understanding Q-M Tunneling and Duality Aspect By **S.N.Dey**,. .North Face: Academic Journal of Darjeeling Government College (ISSN:2455-5002) Vol. 1 No. 1 (2015). 143-150.
- 8. Microstructural Characterization of Cold-Worked Lead (Pb) Powder by X-Ray Diffraction Line Profile Modelling: By **S.N.Dey** and U Dutta,. .Journal of Physical Sciences of Vidyasagar University, Vol. 23 (2018). 119-129 ISSN: 2350-0352 (print), www.vidyasagar.ac.in/publi

## Conference, seminar and school:

- 1. Selected for oral presentation at  $89^{th}$  Indian Science Congress held at Lucknow on  $3^{rd}$   $-7^{th}$  January 2002.
- 2. Participated II<sup>nd</sup> International School on Powder Diffraction (ISPD) and presented a poster, was held at I.A.C.S. Calcutta, India on  $20^{th} 23^{rd}$  January 2002.
- 3. Participated for first SERC School on Texture and OIM, was held at IIT BOMBAY on 26<sup>th</sup> 30<sup>th</sup> January 2006.
- 4. Participated UGC Sponsored State Level Seminar "Networking of Undergraduate Colleges Academic & Administrative Functions" Organised by Maheshtala College. Feb5th 2007.
- 5. Participated UGC Sponsored National Seminar "Photonics and Nano Science" Organised by Garhbeta College. December 20<sup>th</sup> and 21<sup>st</sup> 2011.

- 6. Participated "Conference On Molecules to Materials" organized by Dept of Physics and Chemistry, Haldia Govt. College. March 16<sup>th</sup> and 17<sup>th</sup> 2011.
- 7. Participated State-Sponsored One Day Workshop on "Application and Carrier Aspects of Statistics" organized by Dept of Statistics, Haldia Govt. College. October 7<sup>th</sup> 2013.
- 8. Chaired, International Conference on Nonlinear Dynamics and its Application in Physicsl and Biological Sciences (CNDAPBS-14) by Dept. of Physics, Darjeeling Govt. College. Nov: 01<sup>st</sup> 03<sup>rd</sup> 2014.
- 9. Participated MHRD-Sponsored One Day Awareness Workshop on "MNEICT" at Darjeeling Govt. College, organized by NIT Durgapur and Ministry of Higher Education, Govt. of W.B., November 22<sup>nd</sup> 2014.
- 10. Participated in UGC Sponsored the Short term Course "Remote Sensing and GPS" from 29<sup>th</sup> Dec 2015 to 4<sup>th</sup> Jan 2016.Organized by UGC-ASC Burdwan University.
- 11. Presented Paper in National Conference on Advancement in Frontier Physics: from 20<sup>th</sup> Century to the Present, Organized by Dept of Physics, Bhairab Ganguly College 26<sup>th</sup> and 27<sup>th</sup> February 2016.
- 12. Presented Paper in National Conference on "Nonlinear Dynamics and its Applications (CNDA-16)", Organized by Dept of Physics, Durgapur Government College 07<sup>th</sup> and 09<sup>th</sup> February 2016.
- 13. Presented a paper in 8<sup>th</sup> Vidyasagar Satyendra Nath Bose National Workshop on "Nuclear and Astrophysics: Two opposite Dimension": Organized by Dept of Physics, Vidyasagar University, from 17<sup>th</sup> Jan to 19<sup>th</sup> Jan 2017.
- 14. Delivered a lecture on "XRDLPA a tool for microstructural characterization of materials" organized by School of Applied Science and Humanities Haldia Institute of Technology, from 17<sup>th</sup> March to 18<sup>th</sup> March 2017.
- 14. Participated in "QIP Short term course cum workshop on Industrial Applications of Terahertz Radiation" Organized by Department of Physics IIT Kharagpur, from 27<sup>th</sup> March to 02<sup>nd</sup> April 2017.
- 15. Presented a paper in 9<sup>th</sup> Vidyasagar Satyendra Nath Bose National Workshop on "Science of Materials: Challenges and Prospects": Organized by Dept of Physics, Vidyasagar University, from 17<sup>th</sup> Jan to 19<sup>th</sup> Jan 2018.
- 16. Presented a paper in 10<sup>th</sup> Vidyasagar Satyendra Nath Bose National Workshop on "Expanding Horizon in Physics": Organized by Dept of Physics, Vidyasagar University, from 17<sup>th</sup> Jan to 19<sup>th</sup> Jan 2019.
- 17. Delivered a lecture in one day seminar on Recent Trends in Physics for BOSE 125<sup>th</sup> Celebration of Birth Anniversary organized by Department of Physics, Darjeeling Government College, on 28<sup>th</sup> November 2019.