

CURRICULAM VITAE

Dr. DEVINDER SINGH

Designation: Assistant Professor

(Physics)

Personal Profile:

Date of Birth: 21.09.1982

Nationality: Indian

Marital Status: Married



Mailing Address

Dr. Devinder Singh c/o Ms. Rajinder Kaur,
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Permanent Address

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Punjab, (INDIA).
Pin- 148024.

CAREER OBJECTIVE:

To explore option and achieve professional excellence in the Research field of material sciences by enhancing technical and intellectual skills.

PROFESSIONAL STRENGTH:

Self-motivated, inquisitive, logical, ready to learn and willing to share the knowledge, enjoy working in team, disciplined individual, having high degree of commitment with positive approach. Scientific training backed with years of experience in research. Having the privilege of interacting, associating with luminaries in related field.

ACADEMIC PROFILE:

EXAMINATION	YEAR	% OF MARKS	DIVISION	UNIVERSITY/BOARD
Ph.D. (Physics)	2009			Guru Nanak Dev University, Amritsar, India.
M.Sc. (App. Phy.)	2005	60.83	1 st	Guru Nanak Dev University, Amritsar, India
B.Sc. (Non Med.)	2003	55.37	2 nd	Punjabi University, Patiala, Punjab, India.
Senior Secondary	1999	61.33	1 st	Punjab School Education Board
Higher Secondary	1997	63.5	1 st	C.B.S.E.

EXPERIENCE:

	Total	From	To	At	Duties Assigned
RESEARCH EXPERIENCE (During Ph.D.)	3 Years	20 th March, 2006	20 th March, 2009	Department of Physics, GNDU, Amritsar	Worked on research project entitled Effect of γ -irradiation on Optical and Physical Properties of Borosilicate and Borate Oxide Glasses.
TEACHING EXPERIENCE	6.5Months	1 st Jan,2010	20 th July,2010	Eternal University, Baru Sahib	Establishment of Glass Research Labs, Teaching B. Tech Classes.
	1 Academic Session	20 th August, 2007	29 th Feb., 2008	Hindu College Amritsar	Theory and Practical classes of Physics for +1, +2, B.Sc
RESEARCH ASSOCIATE	8 Months	1 st May, 2009	31 st Dec, 2009	Central Forensic Science Lab, Chandigarh	Research Assistant in Analysis of audio video signals and physical examinations.

CURRENT JOB: Assistant Professor in Physics at Sri Guru Granth Sahib World University, Fatehgarh Sahib (Punjab) from Jan. 8, 2012 to till date.

TITLE OF Ph.D. THESIS: Effect of gamma irradiation on optical and physical properties of Borate and Borosilicate oxide glasses.

SPECIALISATION: Electronics, Material Science

AFFLIATION:

1. Life member of Punjab academy of sciences, Patiala, Punjab. Membership No. L-841.
2. Reviewer of research papers in Journal of American Ceramic Society.
3. Reviewer of research papers in Physica B: Condensed Matter.
4. Member of Acoustic Society of India.
5. Member of Sewa Society, Sri Guru Granth Sahib World University.

INTERNATIONAL RESEARCH PUBLICATIONS:

- [1] S. Baccaro, Monika, Gopi Sharma, Kulwant Singh, **Devinder Singh** and Cecillia A (2007) Analysis of structural modifications in gamma irradiated PbO-B₂O₃-SiO₂ glasses by FTIR spectroscopy. *Nucl. Instr. & Meth. B.* **260**, 613.
- [2] **Devinder Singh**, Kulwant Singh, Gurmel Singh, Manupriya, Shaweta Mohan, Monika Arora and Gopi Sharma (2008) Optical and Structural properties of ZnO-PbO-B₂O₃ and ZnO-PbO-B₂O₃-SiO₂ glasses. *J. Phys.: Condens. Matter* **20**, 075228 (6pp).
- [3] Shaweta Mohan, Kulwant Singh, **Devinder Singh**, Gopi Sharma and Leif Garward (2008) Optical Properties of Alkali-Alkaline Lead Borate glasses doped with Nd³⁺ ions. *Glass Physics and Chemistry V-34, No.-3*: 349-359.
- [4] Sukhpal Singh, Ashok Kumar, **Devinder Singh**, Kulwant Singh Thind and Gurmel S. Mudahar (2008) Barium-Borate-Flyash Glasses: As Radiation Shielding Materials. *Nucl. Instr. & Meth. B.* **266**,140-146.
- [5] **D. Singh**, K. Singh, B.S. Bajwa, G.S. Mudahar, D.P. Singh, Manupriya, M. Arora, V.K. Dangwal (2008) Optical and Structural properties of Li₂O-Al₂O₃-B₂O₃ glasses before and after γ -irradiation effects. *J. Applied Physics.* **104**: 103515.
- [6] Arora, M., Baccaro, S., Sharma, G., **Singh, D.**, Thind, K. S. and Singh, D. P. (2009) Radiation effects on PbO-Al₂O₃-B₂O₃-SiO₂ glasses by FTIR spectroscopy. *Nuclear Instruments and Methods in Physics Research: Section B* **267**: 817-20.

- [7] Manupriya, K.S. Thind, K. Singh, V. Kumar, G. Sharma, D.P. Singh, **D. Singh (2009)** Compositional dependence of in-vitro bioactivity of sodium calcium borate glasses. *Physics Chemistry of Solids*.70: 1137-1141.
- [8] **D. Singh**, K.S. Thind, G.S. Mudahar, B.S.Bajwa (2010). Optical absorption and Infrared spectroscopic analysis of γ -irradiated ZnO-BaO-B₂O₃ glasses. *Nucl. Instr. & Meth. B* **268**: 3340-3343.
- [9] J. Singh, S. P. Singh , **D. Singh**, G. S. Mudahar, K. S. Thind (2011) Optical characterization of fly ash as a glass modifier in potassium borate glasses. *Material Physics and Mechanics*. **11**: 17-22.
- [10] Vandana¹, S.P. Singh, **Devinder Singh**, Gopi Sharma and Gurmel S. Mudahar (2012) Structural Investigation of B₂O₃-Na₂CO₃-CuO Glasses by Molar Volume Measurements and FTIR Spectroscopy. *International Journal of Applied Physics*. 2: 1-6.
- [11] M. Kaur, S. P. Singh, D.S. Mudahar, G.S. Mudahar. (2012) Structural Investigation of B₂O₃- Li₂CO₃- Al₂O₃ glasses by molar volume measurements and FTIR spectroscopy. *Materials Physics and Mechanics* 15, 66-73.
- [12] **D. Singh**, S. P. Singh, G. S. Mudahar, K. S. Thind (2013) Structural investigation of gamma irradiated PbO Glasses. *Materials & Structures (Communicated)*.
- [13] **D. Singh**, S. P. Singh, G. S. Mudahar, K. S. Thind (2013) Optical absorption and Infrared spectroscopic analysis of γ -irradiated ZnO-BaO-B₂O₃ glasses. *J. Applied Physics (Communicated)*.

PAPERS/ ABSTRACTS PRESENTED IN CONFERENCES:

- [1] Shaweta Mohan, Kulwant Singh, **Devinder Singh (2007)** Effect of Nd³⁺ concentration on the optical and spectroscopic properties of lead borate glasses. Symposium of 10th Punjab Science congress on convergence of science and technology for sustainable development. Organized by: DAV Institute Of Engg. and Technology, Jalandhar on 7-9 Feb.2007.
- [2] **D. Singh**, K. Singh, G. Singh, D.P. Singh, Manupriya, Shweta Mohan (2007) Optical properties of Li₂O-Al₂O₃-B₂O₃-SiO₂ glasses. In proceedings of National Symposium

on Acoustics NSA, organized by K.S. College of Technology & Acoustical society of India at Tamil Nadu, India.

- [3] **D Singh**, K Singh, G Singh, B.S.Bajwa, D.P.Singh, Manupriya (2008). UV/VIS Spectroscopic analysis of Zinc Lead Borosilicate glasses. Symposium of 11th Punjab Science congress on convergence of science and technology for sustainable development. Organized by: Thapar Institute Of Engg. and Technology (Deemed University), Patiala on 7-9 Feb.,2008.
- [4] **D. Singh**, K. Singh, B.S.Bajwa, D.P.Singh, G. Singh (2009). γ -irradiation effects on ZnO-BaO-B₂O₃-SiO₂ glasses by UV/Visible Spectroscopic analysis. In Proceedings of National Conference On Advanced Materials and Radiation Physics (March 9-10, 2009) Department of Physics, Sant Longowal Institute of Engineering and Technology (Deemed to be University), Longowal, Sangrur (Punjab) – 148106.
- [5] **D. Singh**, K. Singh, G. Singh, D.P. Singh and B. S. Bajwa (2009). Thermal analysis of γ -irradiated ZnO-PbO-B₂O₃-SiO₂ glasses. International symposium on Nanostructured Materials (ISNM-09) Department of Physics Kanya Maha Vidyalaya Jalandhar (Punjab) –144004 India.
- [6] J. Singh, S. P. Singh, **D. Singh**, G. S. Mudahar and K. S. Thind (2011). Optical characterization of alkali borate glasses with different glass modifiers. National Symposium on Radiation Physics and Nanomaterials (NSRPN-11), Department of Physics, Punjabi University Patiala.
- [7] **D. Singh**, S. P. Singh, G. S. Mudahar and K. S. Thind (2011). γ -irradiation effects on ZnO-BaO- B₂O₃-SiO₂ glasses by UV/Visible Spectroscopic analysis. National Symposium on Radiation Physics and Nanomaterials (NSRPN-11), Department of Physics, Punjabi University Patiala.
- [8] **D. Singh**, Tajinder Singh, Amrit Singh (2011). Fly Ash: A challenge for Health and Environment. National Seminar on Environmental Issues: Prospectives and Challenges Organized by Mata Gujri College, Fatehgarh Sahib on Feb. 8, 2011.
- [9] Amrit Singh, Tajinder Singh, **Devinder Singh** (2011). Nuclear Reactor Technology and its impact on health. National Seminar on Environmental Issues: Prospectives and Challenges. Organized by Mata Gujri College, Fatehgarh Sahib on Feb. 8, 2011.

[10]Tajinder Singh, Amrit Singh, **Devinder Singh (2011)**. Effect of mobile phone radiation on health. National Seminar on Environmental Issues: Prospectives and Challenges. Organized by Mata Gujri College, Fatehgarh Sahib on Feb. 8, 2011.

CONFERENCES/SEMINARS/ WORKSHOPS ATTENDED:

- 1) 10th Punjab Science Congress, Feb. 7th – 9th, **2007** at DAVIET, Jalandhar, Punjab, INDIA.
- 2) 11th Punjab Science Congress, Feb. 7th – 9th, **2008** at Thapar University, Patiala, Punjab, INDIA, Organized by the Punjab academy of sciences.
- 3) Workshop on Ecosafe disposal of organic waste through Vermicomposting & composting held at Guru Nanak Dev University, Amritsar under the auspices of Ministry of Environment and Forests, govt. of India.
- 4) National Seminar on Climate Change, held at Guru Nanak Dev University, Amritsar on March 12th, **2009**.
- 5) National Symposium on Radiation Physics and Nanomaterials (NSRPN-11), held at Department of Physics, Punjabi University Patiala on Feb. 4th-5th, **2011**.
- 6) National Seminar on Environmental Issues: Prospectives and Challenges. Organized by Mata Gujri College, Fatehgarh Sahib on Feb. 8th, **2011**.
- 7) National Integration Camp from 9th May – 15th May, 2011 held at Mata Gujri College, Fatehgarh Sahib.
- 8) National Conference on Preservation of Environment: Challenges before Humanity held at Sri Guru Granth Sahib World University, Fatehgarh Sahib on 14th March, 2013.

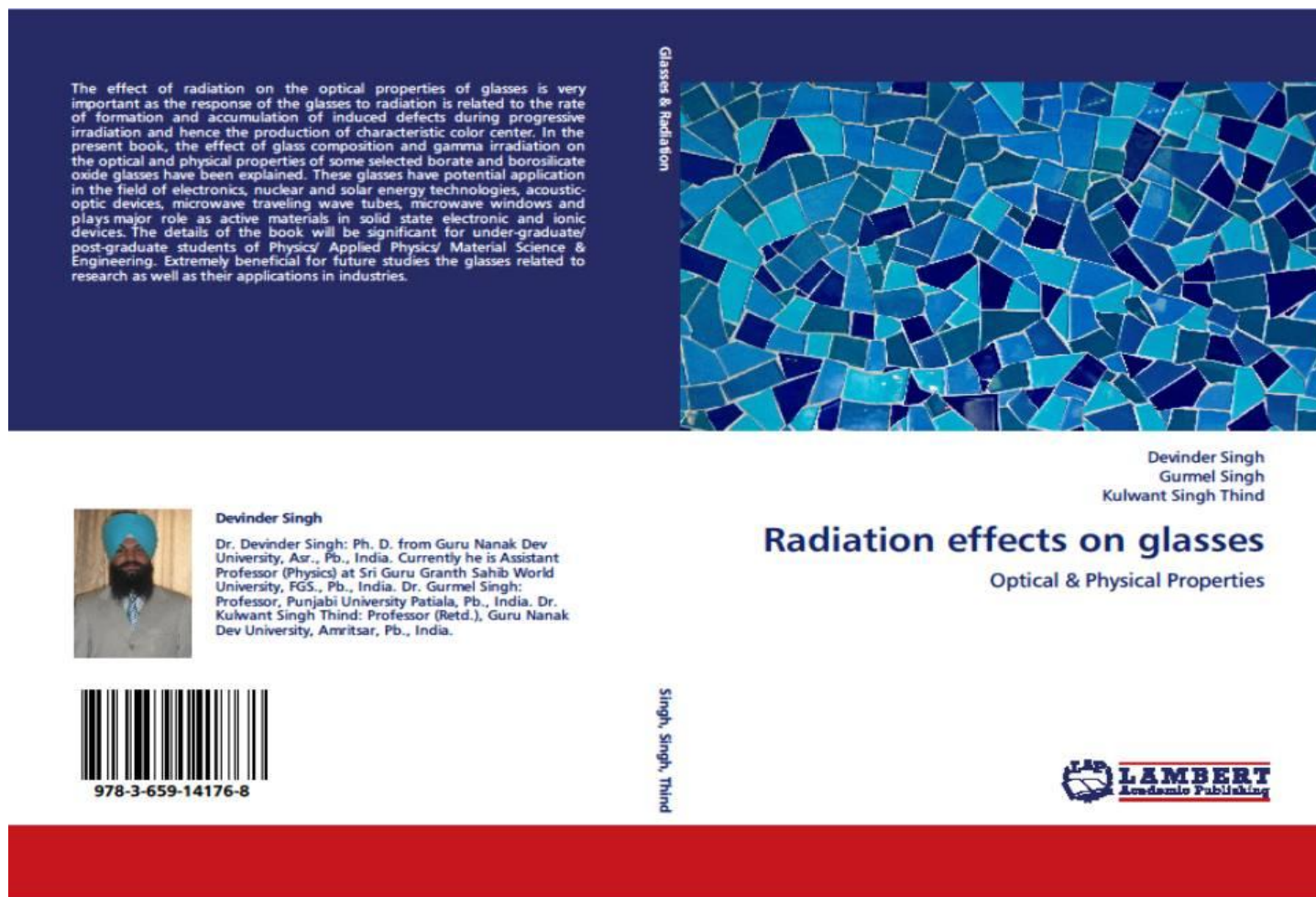
BOOKS / REWARDS:

- Radiation Effects on Glasses: Optical & Physical Properties. **Dr. Devinder Singh**, Dr. Gurmel Singh, Dr. Kulwant Singh Thind, *LAMBERT Academic Publishing*, ISBN: 978-3-659-14176-8, **(2012)**.
- First Position in Scientific Working Model Presentation in State Level Competition 'INNOTECH-2013' organized by Pushpa Gujral Science City, Kapurthala, Punjab on 19th March, 2013, [**Team members:** Dr. Devinder Singh, Amritvir Singh-M. Sc. Physics, Gurshinder Singh-M.Sc. Physics,Rupinderjit Bains-M. Tech. Engg Physics].

SKILLS:

- Computer Literate:** Well versed with Windows, MS office, Origin, Multisim.
- Languages Known:** English, Punjabi and Hindi.

BOOK COVER PAGE:



(DR. DEVINDER SINGH)