

A. S. Maan

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A) Educational Qualification

Degree	Year of Passing	University/Institute
Ph.D.	1990	M. D. University, Rohtak
PG	1986	-do-
UG	1984	-do-
Others	-----	-----

B) Career Profile:

Designation	Institute served	Duration	
		From	To
Lecturer	University College Rohtak	29/10/87 - 03/10/88	10/03/88, - 27/05/91
Joined the Department of Physics as Lecturer on 27/05/1991. Currently working as Professor, since 2007.	Physics Department, M. D. University, Rohtak	27/05/1991	

C) Research Advisory

No. of Students Supervised	Ph.D.	M.Phil.
	Two	Three
	Five students are currently working for their Ph. D degree.	

D) Projects Undertaken

Title of the project	Duration	Funding Agency	Status	
			Completed	In progress
“Electronic and Photoelectric properties of Amorphous Semiconductors”	Three years	DST	Yes	-----
“ Study of Electronic and optical properties of Ion Irradiated Semiconductors”.	Three years	NSC	Yes	-----

E) Publications

Research Papers

Published in Refereed/Peer Reviewed Journals:	29
Published in Conferences/Seminar proceedings	44
Participation in conferences/seminars:	08

Award and Distinctions : Life member, Indian Physical Society (IACS)

Other contributions

- Involved in various academic activities as member of various bodies such Academic Council, Board of studies etc.
- Has been associated with examination work (Theory / Practical) and also pertaining to research of various universities
- Various academic/administrative activities of M. D. U. and also of other bodies
- Member of various counseling teams in M. D. University, Rohtak

LIST OF RESEARCH PUBLICATIONS

1. FIR Absorption in Amorphous $Sb_{15}Ge_{10}Se_{75}$.
D. R. Goyal, A. K. Sharma and A. S. Maan
J. Material Science Letters 7 (1988) 783.
2. Steady State and Transient Photoconductivity in Amorphous $Sb_{15}Ge_{10}Se_{75}$.
A. S. Maan, A. K. Sharma, D. R. Goyal and A. Kumar
J. Non Crystalline Solids 104 (1988) 273.
3. Photoconductivity in Thin Films of Amorphous $In_{40}Se_{30}Te_{30}$.
A. S. Maan, D. R. Goyal and A. Kumar
Jap. J. Applied Physics 27 (1988) 1881.
4. Steady State Photoconductivity and Decay Kinetics in Amorphous Thin Films of $Ga_{40}Se_{30}Te_{30}$.
A. S. Maan and D. R. Goyal
Indian J. Physics 63A (1989) 457.
5. Photoconductivity in the Thin Films of Amorphous $Ga_{40}Se_xTe_{60-x}$.
A. S. Maan, D. R. Goyal and A. Kumar
Revue de Physique Appliquee 24 (1989) 613.
6. Steady State Photoconductivity and Decay Kinetics in Thin Films of Amorphous $In_{20}Se_{80}$.
A. S. Maan, D. R. Goyal and A. Kumar
J. Non Crystalline Solids 110 (1989) 53
7. A.C. Conductivity of Amorphous Ga-Se-Te System.
A. S. Maan, D. R. Goyal and A. Kumar
Revue de Physique Appliquee 24 (1989) 1071.
8. Study of Laser Induced Photoconductivity in Thin Films of Amorphous $Sb_{15}Ge_5Se_{80}$ Alloy.
A. S. Maan, L. R. Sharma, H. S. Dahiya and D. R. Goyal
Journal de Physique III, France 3 (1993) 1211.

9. Investigation of Electrical Conductivity and Optical Absorption in Amorphous $\text{In}_x\text{Se}_{100-x}$ Alloys.
A. S. Maan, D. R. Goyal, Sachin K. Sharma and T. P. Sharma
Journal de Physique III, France 4 (1994) 493.
10. Far Infrared Absorption in Amorphous $\text{Sb}_{15}\text{Ge}_x\text{Se}_{85-x}$ glasses
D. R. Goyal and A. S. Maan
J. Non crystalline Solids 183 (1995) 182.
11. Optical Absorption Properties of Amorphous Ga-Se-Te Alloys.
A. S. Maan, D. R. Goyal, Sachin K. Sharma and T. P. Sharma
J. Non Crystalline Solids 183 (1995) 186.
12. D.C. Conductivity Studies on Titanium-Titanium Oxide-Metal System.
K. C. Kalra, K. C. Singh, Mohinder Singh, S. Maken, D. R. Goyal and A.S. Maan
Indian J. Pure and Applied Physics 34 (1996) 263.
13. Investigation of Optical Absorption in Sb-Se Glassy Alloys.
M. Singh, D. R. Goyal and A. S. Maan
J. Physics and Chemistry of Solids 60 (1999) 877.
14. MeV energy Lithium ion irradiated crystalline GaAs : An optical study
J. Malik, K. L. Bhatia, N. Kishore, D. Kabiraj and A. S. Maan
Radiation Measurements, 36 (2003) 647.
16. A.C. Conductivity in Amorphous In-Se-Te Alloys
D. R. Goyal and A. S. Maan
Bulletin of Pure and Applied Sciences. 22D (2003) 75.
17. Calorimetric Studies in Glassy Sb-Se Alloys
D. R. Goyal and A. S. Maan
Bulletin of Pure and Applied Sciences. 22D (2003) 65.
18. Investigation of Optical Absorption in $\text{Te}_5(\text{In}_x\text{Se}_{100-x})_{95}$ Glassy Alloys.
A. S. Maan, D. R. Goyal and A. Kumar
Chalcogenide Letters. 4 (2007) 48.
19. Kinetics of Glass Transition in $\text{Te}_5(\text{In}_x\text{Se}_{100-x})_{95}$ Glassy Alloys.
A. S. Maan and D. R. Goyal
J. Ovonic Research 3 No. 2 (2007) 45.
20. Photoconductivity in thin films of $\text{Sb}_x\text{Se}_{100-x}$ glasses
A. S. Maan and D. R. Goyal
Optoelectronics and Adv. Materials – Rapid Commun. 1, No. 9 (2007) 430.
21. Study of Crystallization Kinetics of $\text{Te}_5(\text{In}_x\text{Se}_{100-x})_{95}$ Glassy Alloys
A. S. Maan and D. R. Goyal
Chalcogenide Letters, 4, No. 8, (2007) 89.
22. Pre-Exponential factor of a. c. conduction in $\text{Se}_{80}\text{Te}_{19.5}\text{M}_{0.5}$ (m = Cd, In, Sb) Chalcogenide glasses
N. Mehta, A. S. Maan and A. Kumar,
Chalcogenide Letters, 4, No. 12 (2007) 139.

23. Dielectric properties of In-Se-Te glassy alloys
A. S. Maan and D. R. Goyal
Ind. J. Material Sc. And Engg. 15, April (2008) 207.
24. Physical and electrical properties of semiconducting $\text{Fe}_2\text{O}_3\text{-V}_2\text{O}_5\text{-B}_2\text{O}_3$ glasses
Virender Kundu, R. L. Dhiman, D. R. Goyal and A. S. Maan
Optoelectronics and Adv. Materials – Rapid Commun. 2, No.7 (2008) 428.
25. Effect of V_2O_5 on structural, Physical and Electrical properties of bismuth borate glasses
Virender Kundu, R. L. Dhiman, D. R. Goyal and A. S. Maan
J. of Optoelectronics and Adv. Materials, 10, (2008) 2765.
26. Structural and Physical properties of semiconducting $\text{Fe}_2\text{O}_3\text{-B}_2\text{O}_3\text{-V}_2\text{O}_5$ glasses
Virender Kundu, R. L. Dhiman, D. R. Goyal and A. S. Maan
Adv. In Condensed Matter Physics, 10 (2008) 1.
27. Characterization of Aluminum doped Zinc Borate Glasses.
R. L. Dhiman, V. S. Kundu, A. S. Maan and D. R. Goyal
J. of Optoelectronics and Adv. Materials, 11 (2009)1002.
28. Optical and spectroscopic studies of $\text{ZnO-Bi}_2\text{O}_3\text{-B}_2\text{O}_3$ glasses
Virender Kundu, R.L. Dhiman, A.S. Maan and D.R. Goyal
Journal of optoelectronics and advanced materials, Vol. 11, No. 11 (2009) 1595.
29. Characterization and electrical conductivity of Vanadium doped Strontium bismuth borate glasses
Virender Kundu, R.L. Dhiman, D.R. Goyal, A.S. Maan and Susheel Arora
Journal of Optoelectronics and Advanced Materials vol. 12, no. 12(2010) 2373.

LIST OF RESEARCH PUBLICATIONS

International/national conferences/seminars/symposia

1. Transient photoconductivity in a- thin films of $\text{In}_{40}\text{Se}_{30}\text{Te}_{30}$
Solid state physics symp. BARC, Bombay 1987.
2. Anomalous rise of photocurrent in thin films of a- $\text{In}_{20}\text{Se}_{80}$.
Solid state physics symp. BARC, Bombay 1987.
3. Non exponential decay of photocurrent in thin films of a- $\text{Sb}_{15}\text{Ge}_{10}\text{Se}_{75}$
19th national seminar on crystals. Gandhiji University, Changanacherry, 1987.
4. Photocurrent decay in thin films of a- $\text{In}_{20}\text{Se}_{80}$
19th national seminar on crystals. Gandhiji University, Changanacherry, 1987.
5. Steady state photoconductivity and decay kinetics in amorphous thin films of $\text{Ga}_{40}\text{Se}_{30}\text{Te}_{30}$
National seminar on Physics and applications, I.A.C.S. Calcutta 1988.
6. Photoconduction in a-thin films of $\text{Ga}_{40}\text{Se}_x\text{Te}_{60-x}$
Solid state physics symp. Bhopal University, Bhopal, 1988.
7. Electrical properties of a- $\text{Sb}_{15}\text{Ge}_{10}\text{Se}_{75}$
Solid state physics symp. Bhopal University, Bhopal, 1988.

8. Photoconductivity in thin films of a- $\text{In}_{40}\text{Se}_{20}\text{Te}_{40}$
Vth national seminar on ferroelectrics and dielectrics, S.V.University, Tirupati, 1989.
9. Temperature dependence of a.c. conductivity in glassy $\text{Ga}_{40}\text{Se}_{40}\text{Te}_{20}$
Vth national seminar on ferroelectrics and dielectrics, S.V.University, Tirupati, 1989.
10. FIR absorption in amorphous $\text{Sb}_{15}\text{Ge}_x\text{Se}_{85-x}$ glasses.
Second national conference on disordered materials, H.B.T.I. Kanpur, 1991.
11. Photoconductivity in a- $\text{Sb}_{15}\text{Ge}_x\text{Se}_{85-x}$ glasses.
Second national conference on disordered materials, H.B.T.I. Kanpur, 1991.
12. Frequency dependent conductivity in a- In-Se-Te system.
Second national conference on disordered materials, H.B.T.I. Kanpur, 1991.
13. Steady state and transient photoconductivity in a- $\text{In}_{10}\text{Se}_{90}$.
Solid state physics symp. S.V.University, Tirupati, 1992.
14. Molecular structure of Sb-Ge-Se glasses.
Solid state physics symp. BARC, Bombay, 1993.
15. Charge transport in thin films of a- In-Se alloys.
Solid state physics symp. BARC, Bombay, 1993.
16. Optical absorption in thin films of a- Ga-Se-Te alloys.
Solid state physics symp. BARC, Bombay, 1993.
17. Investigation of photoconduction and recombination kinetics in a- thin films of $\text{In}_x\text{Se}_{100-x}$ alloys using a laser.
International seminar on CDDM, K.U.Kurukshetra, 1996.
18. Study of crystallization kinetics in glassy $\text{Te}_{\square}(\text{In}_x\text{Se}_{100-x})_{95}$.
DAE Solid state physics symp. Kochi, 1997.
19. Study of recombination kinetics in amorphous Sb-Ge- Se alloys.
DAE Solid state physics symp. Kochi, 1997.
20. Optical absorption properties of a- $\text{Sb}_{15}\text{Ge}_x\text{Se}_{100-x}$ alloys.
Ninth annual general meeting, MRSI, Madras, 1998.
21. Study of crystallization kinetics in a- $\text{Sb}_x\text{Se}_{100-x}$
Ninth annual general meeting, MRSI, Madras, 1998.
22. Kinematics studies of glass transition in $\text{Te}_{\square}(\text{In}_x\text{Se}_{100-x})_{85}$ alloys.
Ninth annual general meeting, MRSI, Madras, 1998.
23. Optical absorption properties of a- $\text{Te}_{\square}(\text{In}_x\text{Se}_{100-x})_{95}$.
National seminar on characterization of semiconductor materials for device applications, GNDU, Amritsar, 1998.
24. Kinematics studies of glass transition in $\text{Sb}_x\text{Se}_{100-x}$ alloys.
National seminar on characterization of semiconductor materials for device applications, GNDU, Amritsar, 1998.

25. Laser Induced Photoconductivity and Recombination Kinetics in Sb_xSe_{100-x} Glassy Alloys.
44th Solid State Physics Symposium, BARC Mumbai (2001).
26. Laser Induced Photoconductivity and Recombination Kinetics in Sb_xSe_{100-x} Glassy Alloys.
44th Solid State Physics Symposium, BARC Mumbai (2001).
27. Effect of annealing on the electronic properties of a- thin films of $Ga_{20}Te_{80-x}Bi_x$.
National conference on frontiers in material science and technology, I.I.T. Kharagpur, 2002.
28. Study of surface morphology and atomic spectra of As_2S_3 thin films irradiated with 75 MeV Ge ions
National Seminar on Physics of Materials for Electronic and Optoelectronic Devices, J. N. V. University, Jodhpur 2002.
29. Dielectric properties of a- $Ga_{40}Se_xTe_{60-x}$ alloys.
National symposium on frontiers in condensed matter physics, G.J.U. Hissar, 2002.
30. Temperature and frequency Dependence of Permittivity of Ga-Se-Te Glassy Alloys.
48th DAE Solid State Physics Symposium, Gwalior 2003.
31. DC conductivity and study state photoconductivity in thin film of Sb_xSe_{100-x} glasses.
48th DAE Solid State Physics Symposium, Gwalior 2003.
32. Transient Photo Conductivity and recombination kinetics in $Te_5(In_xSe_{100-x})_{95}$ glasses
49th DAE Solid State Physics Symposium, 2004 GNDU, Amritsar.
33. Laser Induced steady state photoconductivity and recombination mechanism in In_xSe_{100-x} glassy alloys
49th DAE Solid State Physics Symposium, 2004 GNDU, Amritsar.
34. Kinetics of glass transition and crystallization in $Te_5(In_{10}Se_{90})_{95}$ glassy alloy
15th National symposium on thermal analysis, 2006, University of Rajasthan, Jaipur.
35. Dielectric properties of In-Se-Te glassy alloys.
XIVth National Seminar on Ferroelectrics and Dielectrics, IIT Kharagpur 2006.
36. Investigation of Photoconductivity and Recombination Mechanism in Thin Films of $Te_x(In_{10}Se_{90})_{100-x}$ Glassy Alloys.
XIVth National Seminar on Ferroelectrics and Dielectrics, IIT Kharagpur 2006.
37. Kinematic Studies of Glass Transition and Crystallization in Sb_5Se_{95} Glassy Alloy by DSC Technique.
51st DAE Solid State Physics Symposium, Bhopal 2006.
38. Electrical conductivity of $V_2O_5-Bi_2O_3-B_2O_3$ glasses
52nd DAE Solid State Physics Symposium, Mysore 2007.
39. Effect of SrO on Physical and optical properties of vanadyl doped bismuth borate glasses
52nd DAE Solid State Physics Symposium, Mysore 2007.

40. Structural and optical properties of vanadyl doped SrO-Bi₂O₃-B₂O₃ glasses
Accepted for presentation at XVth National Seminar on Ferroelectrics and Dielectrics,
Thapar University, Patiala 2008.
41. Optical properties of zinc doped bismuth borate glasses.
53rd DAE, Solid State Physics Symposium, 53(2008) 565.
42. Cation distribution in aluminum substituted Mn-Zn ferrites from X-ray diffraction and
magnetization measurements
54th DAE, Solid State Physics Symposium, 54 (2009) 979.
43. Optical properties of alkaline earth ions doped bismuth borate glasses
DAE, Solid State Physics Symposium Dec.2010,
44. Structural investigation of Li₂O-Bi₂O₃-B₂O₃ glasses
DAE, Solid State Physics Symposium Dec.2010