




University Faculty Details Page on DU Web-site

Title	Dr.	First Name	SEVI	Last Name	MURUGAVEL	Photograph
Designation		ASSOCIATE PROFESSOR				
Department		NORTH CAMPUS, PHYSICS AND ASTROPHYSICS				
Address (Campus)		ROOM NO:167, MUTISTORYED BUILDING				
(Residence)		Flat No. 595, DA Block, Shalimarbagh, Delhi – 110 088				
Phone No (Campus)		011-27662980				
(Residence)optional		011-27606259				
Mobile		9958413053				
Fax		011-27667061				
Email		murug@physics.du.ac.in				
Web-Page						
Education						
Subject	Institution		Year	Details		
Ph. D	Indian Institute of Science		1998	Thesis topic: Local structure and transport properties of chalcogenide glasses		
M. Sc	Anna University		1991	Subjects: Materials Science		
B. Sc	University of Madras		1988	Subjects: Physics		
Career Profile						
Organization / Institution		Designation	Duration	Role		
Indian Institute of Science		Research Associate	1998-1999	Research		
Université Pierre et Marie Curie-Paris VI, Paris, France		Post-doctoral Fellow	1999-2000	Research		
University of Muenster, Germany		Alexander von-Humboldt Fellow	2000-2002	Research		
University of Muenster, Germany		Research Associate	2003-Nov'2006	Teaching and Research		
Max-Planck Institute for Solid State Research, Stuttgart, Germany		Guest Scientist	Dec'2006-Oct'2007	Research		
University of Delhi		Reader	Nov'2007-Sep'2010	Teaching and Research		
University of Delhi		Associate Professor	Sep'2010 –present	Teaching and Research		
Research Interests / Specialization						
<p>My research includes broadly on experimental condensed matter physics/materials science. In particular, I focus on electrical transport investigations glasses, ion-conducting glasses, glass-ceramics and electrode materials for lithium ion batteries. I also work on design and synthesis of advanced materials for memory device applications.</p>						
Teaching Experience (Subjects/Courses Taught)						
<p>2007- 2010: Advanced Experimental Solid State Physics 2010 – present: Physical at Nanoscale 2013- Present: Computational Laboratory</p>						
Honors & Awards						
2000: Alexander von-Humboldt Award, Germany						
Publications (LAST FIVE YEARS)						

In Indexed/ Peer Reviewed Journals

<u>Year of Publication</u>	<u>Title</u>	<u>Journal</u>	<u>Co-Author</u>
2016	Influence of lithium vacancies on the polaronic transport in olivine phosphate structure	J. Appl. Phys., 119, 045103	M. Sharma, and R. Shahid
	Direct evidence for phase transition in thin Ge ₁ Sb ₄ Te ₇ films using in situ UV-Vis-NIR spectroscopy and Raman scattering studies	Phys. Status Solidi B 253, 1069–1075	S. Sahu ¹ , S. Kumar Pande, A.Manivannan, U.Prabhakar Rao Deshpande, Vasant G. Sathe, V. Raghavendra
	Electrical conductivity and modulus formulation in zinc modified bismuth boro-tellurite glasses	Indian J Phys DOI:10.1007/s12648-016-0850-9	S Dhankhar, R S Kundu, M Dult, R Punia and N Kishore
2015	The role of atomic vacancies on phonon confinement in α -GeTe	AIP Adv. 5, 047127	G. Kalra
	Structural and other physical properties of lithium doped bismuth zinc vanadate semiconducting glassy system	J. Mol. Str. 1079, 189–193	S. Dahiya, R. Punia, A.S. Maan
	DC Conduction and Electric Modulus Formulation of Lithium-Doped Bismuth Zinc Vanadate Semiconducting Glassy System	J. Amer. Ceram. Soc.,98, 2776-2783	S. Dahiya, R. Punia, A. Singh and A.S. Maan
	Temperature and frequency dependent conductivity and electric modulus formulation of manganese modified bismuth silicate glasses	J. Non-Cryst. Solids 423–424, 1-8	M. Dult, R.S. Kundu, J. Hooda, R. Punia, and N. Kishore
	Influence of textural properties on biomineralization behavior of mesoporous bioactive glasses	Biomed. Glasses 1, 1–9	A. Kumar
	Investigation of the intrinsic magnetodielectric effect in La ₂ CoMnO ₆ : role of magnetic disorder	J. Mater. Chem. C, 3, 836-843	J. Krishna Murthy, K. Devi Chandrasekhar, A. Venimadhava
	Structural and other physical properties of lithium doped bismuth zinc vanadate semiconducting glassy system	J. of Mol. Str., 1079, 189–193	S. Dahiya, R. Punia, A.S. Maan
2014	Experimental evidence for presence of voids in phase change memory material	RSC Advances, 4, 3691-3700	M. Upadhyay, A. Sekar, and G. Amarendra
	Direct correlation between non-random distribution of cations and ion transport mechanism in soda-lime	J. Non- Cryst.	C. Vaid, C. Das and S. Asokan,

	silicate glasses	Solids, 404, 84-90	
	Mesoporous bioactive glass and glass–ceramics: Influence of the local structure on in vitro bioactivity	Micropor. Mesopor. Mater., 186, 46-56.	C. Vaid, C. Das, and S. Asokan
2013	Synthesis and characterization of olivine phosphate cathode material with different particle sizes for rechargeable lithium ion batteries	Mat. Chem. Phys., 140, 659-664	R. Shahid
	Particle size dependent confinement and lattice strain effects in LiFePO ₄	Phys. Chem. Chem. Phys., 15, 18809–18814.	R. Shahid
	New Trends in Bioactive Glasses: The Importance of Mesostructure	Trans. Ind. Ceram. Soc., 72, pp. 1-4	C. Vaid
	Correlation between crystallization behavior, electrical switching and local atomic structure of Ge–Te glasses	J. Non-Cryst. Solids, 368, 3439	M. Upadhyay
	Alkali oxide containing mesoporous bioactive glasses: Synthesis, characterization and in vitro bioactivity	Mat. Sci. Eng. C, 33, 959-968	C. Vaid
	Bio-inspired synthesis of microporous bioactive glass-ceramic using CT-DNA as a template	J. Mater. Chem., B 1, 6329-6338	D. Santhiya, H. K. Alajangi, F. Anjum and M. Ganguli
2012	Synthesis and in vitro bioactivity of surfactant templated mesoporous sodium silicate glasses	Micropor. Mesopor. Mater., 159, 17-23	C. Vaid, R. Kashayap and R. P. Tandon
	Temperature and frequency dependent conductivity of bismuth zinc vanadate semiconducting glassy system	J. App. Phys., 112, 083701	R. Punia, R. S. Kundu, M. Dult and N. Kishore
	Hopping conduction in bismuth modified zinc vanadate glasses: An applicability of Mott's model	J. App. Phys., 112, 113716	R. Punia, R. S. Kundu, M. Dult and N. Kishore

Articles

Nonlinear Ionic Conductivity of Solid Electrolytes, Dielectrics Newsletters, February 2008

Conference Presentations

1. Invited Talk in 11th National conference on Solid state ionics at Department of Physics, Tezpur University 20 – 23rd Dec.2015
2. Invited talk in 2nd National conference on materials for energy conversion and storage at Pondicherry University, 10-13th March 2016
3. **Delivered invited talk in 1st Joint Meeting of DGG-ACerS GOMD to geather with 10th International Conference on Advances in Fusion and Processing of Glass (AFPG) at Aachen, Germany during 25-30th May 2014.**
4. **Delivered invited talk in “EMN Fall Meeting” held at University of Central Florida, USA during 07-12th December 2013.**
5. **Delivered invited talk at IUMRS – ICA 2013, held at IISc, Bangalore during 16th – 20th December 2013.**
6. **Delivered invited talk at National conference on advanced biomaterials at Vellore Institute of Technology (VIT), Vellore during December 2013.**

<p>7. Delivered invited talk in “INDO-FRENCH WORKSHOP ON GLASSES AND GLASS-CERAMICS (IFWGGC-2012)”, at University of Science and Technology of Lille (USTL), France, during June 6-8, 2012.</p> <p>8. Delivered invited talk at National Symposium on Materials Processing at BARC, during October 2012.</p>
Total Publication Profile optional
<p><u>Book Chapter:</u></p> <p>1. Trends in Biomaterials, Edited by G. P. Kothiyal and A. Srinivasan (Pan Stanford Publishing, 2016)</p>
<p><u>In Indexed/ Peer Reviewed Journals</u></p> <p>60</p>
<p><u>Conference Presentations</u></p> <p>15 conference presentations</p>
Public Service / University Service / Consulting Activity
Not applicable
Professional Societies Memberships
<ul style="list-style-type: none"> • Society of glass technology • International dielectrics society • German Bunsen Society for Physical Chemistry
Projects (Major Grants / Collaborations)
<ol style="list-style-type: none"> 1. “Electrical transport investigations on advanced materials for energy and information storage applications”, funded by DST (2010-2013) 2. “Equipment grant received with an amount of 20,000 Euros from the Alexander von-Humboldt Foundation, Germany” 3. “Transport and dynamics of alkali ions in solid electrolytes with disordered structure”funded by DST (2015-2017) 4. “Microstructure of Phase change memory materials” funded by UGC-DAE-CSR (2014-16) 5. “Investigations on nano structured olivine phosphate cathode materials for advanced energy storage devices” by CSIR (2015-2018)
Other Details
<p>SYNERGISTIC ACTIVITIES:</p> <p>Refereeing in the following Journals:</p> <ul style="list-style-type: none"> • Journal of Non-Crystalline Solids; Chemistry of Materials; Applied Physics Letters; Scientific Reports • Physics and Chemistry of Solids; European Journal of Physics • Physica status solidi; Journal of Materials Science • Bulletin of Materials Science; Mat. Sci. Eng., C • Materials Letters: Journal of Solid state Chemistry