



## University Faculty Details Page on DU Web-site

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<b>Title</b>	<b>Professor</b>	<b>First Name</b>	Sitharaman	<b>Last Name</b>	Uma	<b>Photograph</b>
<b>Designation</b>		Professor				
<b>Department</b>		Chemistry				
<b>Address (Campus)</b>		Department of Chemistry University of Delhi Delhi 110 007				
<b>(Residence)</b>						
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<b>Email</b>		suma@chemistry.du.ac.in				
<b>Web-Page</b>						
<b>Education</b>						
<b>Subject</b>		<b>Institution</b>		<b>Year</b>		<b>Details</b>
Ph. D in Solid State Chemistry		Indian Institute of Science, Bangalore		1995		
<b>Career Profile</b>						
<b>Organization / Institution</b>		<b>Designation</b>		<b>Duration</b>		<b>Role</b>
Kansas State University, USA		Research Associate		2001-2005		Research
Oregon State University, USA		Research Associate		1999-2001		Research
Iowa State University, USA		Research Associate		1996-1998		Research
Indian Institute of Science, Bangalore		Research Associate		1995-1996		Research
<b>Research Interests / Specialization</b>						
Materials, Solid State Chemistry / Synthesis of new materials (mesoporous, microporous, and nanoscale), crystal structure evaluation, structure-property relationship, Oxide-ion conductors and Development of Photocatalysts for environmental remediation						
<b>Teaching Experience ( Subjects/Courses Taught)</b>						
Inorganic and Solid State Chemistry Courses taken for M.Sc Chemistry 1. Inorganic Supra Molecular Chemistry 2. Chemistry of d and f block Elements 3. Inorganic Materials 4. Bio Inorganic Chemistry and Catalysis						
Courses taken for M.Tech 1. Solid State Chemistry for M.Tech in NanoScience and Nanotechnology						
Courses taken for Ph. D 1. Advanced Materials Chemistry						
<b>Honors &amp; Awards</b>						
K.P. Abraham Gold Medal and cash award for the Best Thesis in Materials Chemistry, 1995-1996, Indian Institute of Science, Bangalore, India. Awarded Maya Devi Juneja Gold Medal in the ISCA-2015 for contribution in the area of Solid State Chemistry and Allied Areas						
<b>Publications (LAST FIVE YEARS)</b>						
<b>Books / Monographs</b>						

<u>Year of Publication</u>	<u>Title</u>	<u>Publisher</u>	<u>Co-Author</u>
	Nil		
<u>In Indexed/ Peer Reviewed Journals</u>			
<u>Year of Publication</u>	<u>Title</u>	<u>Journal</u>	<u>Co-Author</u>
2018	Efficient use of a polyamine carboxylate ligand to probe the extent of incorporation of stereochemically active Bi <sup>3+</sup> in ThO <sub>2</sub> .	<i>Chem Select</i> , 2018, <b>3</b> , 5005-5012.	P.Kumari, Meenakshi Pokhriyal and R. Nagarajan
2017	Synthesis, characterization of new Bi <sup>3+</sup> containing apatites: Formation of red emitting phosphors by Eu <sup>3+</sup> incorporation	<i>Journal of Solid State Chemistry</i> , 2017, <b>254</b> , 138-143.	Meenakshi Pokhriyal and Akanksha Gupta
2017	Luminescence properties of Tb <sup>3+</sup> and Eu <sup>3+</sup> doped beyerite CaBi <sub>2</sub> O <sub>2</sub> (CO <sub>3</sub> ) <sub>2</sub>	<i>Materials Research Bulletin</i> , 2017, <b>95</b> , 361-366.	Meenakshi Pokhriyal
2017	Chapter on complex layered oxides	(Vol. 1, Materials and Structure of Solids), <i>Handbook of Solid State Chemistry Wiley</i> , (2017).	Nil
2017	Facile synthesis and characterization of acetate intercalated Co-La layered double hydroxide	<i>J. Rare Earths</i> , <b>35</b> , 474-479 (2017).	Meenakshi Pokhriyal and R. Nagarajan
2016	Single step hydrothermal synthesis of beyerite, CaBi <sub>2</sub> O <sub>2</sub> (CO <sub>3</sub> ) <sub>2</sub> for the fabrication of UV-visible light photocatalyst BiOI/CaBi <sub>2</sub> O <sub>2</sub> (CO <sub>3</sub> ) <sub>2</sub>	<i>RSC Advances</i> , 2016, <b>6</b> , 38252-38262  <i>Materials Research Bulletin</i> , 2016, <b>76</b> , 118-	Vidhu Malik and Meenakshi Pokhriyal

2016	High lithium ion containing oxides $\text{Li}_{4.5}\text{M}_{0.5}\text{TeO}_6$ (M(III) = Cr, Mn, Al, Ga) belonging to rocksalt superstructure type	123 Colloids and Surfaces A: Physicochemical Engineering Aspects, 2015, 481, 269-275	Akanksha Gupta
2015	Synthesis of zinblende $\text{CuInS}_2$ and Fe-substituted $\text{CuInS}_2$ by thereaction of binary colloids	Journal of Solid State Chemistry, 2015, 230, 369-373	Meenakshi Gusain, Prashant Kumar, and Rajamani Nagarajan
2015	Synthesis and crystal structure of $\text{Bi}_6(\text{Bi}_{0.5}\text{Cu}_{0.5})\text{V}_2\text{O}_{15+y}$	Journal of Chemical Sciences, 127, 225-233	Akanksha Gupta
2014	Interesting cationic ( $\text{Li}^+/\text{Fe}^{3+}/\text{Te}^{6+}$ ) variations in new rocksalt ordered structures	Dalton Transaction, 2014, 43, 12050-12057	Akanksha Gupta
2014	Evidence of cationic mixing and ordering in the honeycomb layer of $\text{Li}_4\text{MSbO}_6$ (M (III) = Cr, Mn, Al, Ga) (S.G. C2/c) oxides	Dalton Transactions, 2013, 42, 14992-14998.	Neha Bhardwaj, and Akanksha Gupta
2013	Formation of honeycomb ordered monoclinic $\text{Li}_2\text{M}_2\text{TeO}_6$ (M = Cu, Ni) and disordered orthorhombic $\text{Li}_2\text{Ni}_2\text{TeO}_6$ oxides	Chem. Coomun. 2013, 49, 7316-7318.	Vinod Kumar and Akanksha Gupta

2013	Precursor driven one pot synthesis of Wurtzite and Chalcopyrite CuFeS <sub>2</sub>	Bull. Mater. Sci. 2013, 35, 287-291.	Prashant Kumar and Rajamani Nagarajan
2013	Single step hydrothermal based synthesis of M(II)Sb <sub>2</sub> O <sub>6</sub> (M = Cd, and Zn) type antimonates and their photocatalytic properties		Jyoti Singh and Neha Bhardwaj
<u>Articles</u>			
Nil			
<u>Conference Presentations</u>			
<ol style="list-style-type: none"> <li>1. Exploration and Identification of new solid state structures aided by single crystal X-ray diffraction, <b>Sitharaman Uma</b> (Invited talk), First south east Asia conference on crystal engineering (SEACCE), University of Jayewardenepura, Colombo, Srilanka, September 2016.</li> <li>2. Synthesis and Characterization of Solid State Materials: Potential Solid Electrolytes, and Electrodes, Talk presented in 99<sup>th</sup> Canadian Chemistry Conference and Exhibition, June 06, 2016, Halifax, Canada.</li> <li>3. Investigation of catalytic and photocatalytic applications of CaBi<sub>2</sub>O<sub>2</sub>(CO<sub>3</sub>)<sub>2</sub> and BiOI/CaBi<sub>2</sub>O<sub>2</sub>(CO<sub>3</sub>)<sub>2</sub>, Vidhu Malik, Meenakshi Pokhriyal and Sitharaman Uma, Poster presented in International Conference on Materials Science &amp; Technology (ICMTech-2016), March 1-4, 2016, University of Delhi</li> <li>4. Investiagtion of BiOI/CaBi<sub>2</sub>O<sub>2</sub>(CO<sub>3</sub>)<sub>2</sub> composite for potential photocatalytic applications, Vidhu Malik, Meenakshi Pokhriyal and Sitharaman Uma, Poster presented in Chemical research society of India (CRSI-2016), February 5-7, 2016, Punjab University, Chandigarh</li> <li>5. Synthesis and Characterization of BiOI/CaBi<sub>2</sub>O<sub>2</sub>(CO<sub>3</sub>)<sub>2</sub> composite as photocatalyst utilizing UV/visible light irradiation, Vidhu Malik, Meenakshi Pokhriyal and Sitharaman Uma, Poster presented on 9<sup>th</sup> National Conference on Solid State Chemistry and Allied Areas, ISCAS-2015, May 8-10, 2015, University of Delhi</li> <li>6. Investigations of the various cationic distributions in new lithium based rocksalt ordered structures, Invited talk in 9<sup>th</sup> National Conference on Solid State Chemistry and Allied Areas, ISCAS-2015, May 8-10, 2015, University of Delhi</li> <li>7. Synthesis and structural characterization of new phosphosilicate apatites and investigation of photoluminescence by Eu<sup>3+</sup> doping, Akanksha Gupta, Meenakshi Pokhriyal and Sitharaman Uma, Poster presented in the 5<sup>th</sup> DAE-BRNS International Symposium on Materials Chemistry, December 09-13, 2014, Mumbai, India</li> <li>8. Precursor driven one pot synthesis of Wurtzite and Chalcopyrite CuFeS<sub>2</sub>, Prashant Kumar, Sitharaman Uma, Rajamani Nagarajan, Poster presented in International Union of Materials Research Societies–International Conference in Asia 2012 (IUMRS-ICA 2013), December 16 – 20, 2013, Indian Institute of Science, Bangalore, INDIA</li> </ol>			

9. Lithium Containing Layered Mixed Metal Oxides With Honeycomb Ordered Structures, <a href="#">Akanksha Gupta</a> , Neha Bhardwaj, Vinod Kumar and Sitharaman Uma, Poster presented in MTIC-XV, December 13-16, 201, IIT Roorkee,
10. Interesting Cationic ( $\text{Li}^+/\text{Fe}^{3+}/\text{Te}^{6+}$ ) variations in new rocksalt ordered structures, S. Uma, Short Invited Lecture in MTIC-XV, December 13-16, 2013, IIT Roorkee
11. A simple unconventional approach for composition control in copper-iron-sulfur system, Prashant Kumar, Sitharaman Uma, and Rajamani Nagarajan, Poster presented in IUMRS-ICA 2012, Busan, S. Korea.
12. Novel Lithium Containing Mixed Metal Oxides Honeycomb Structures, Neha Bhardwaj, Vinod Kumar, Vaishali Thakral and S. Uma, 4 <sup>th</sup> DAE-BRNS International Symposium on Materials Chemistry, December 11-15, 2012, Mumbai, India
13. Ion exchange synthesis and characterization of new pyrochlore copper(1) antimony oxide, Jyoti Singh and <b>S. Uma</b> , Poster Presented at International Conference on Materials for Advanced Technologies, Suntec, Singapore (June 2011).
14. Optical and photocatalytic properties of heavily doped $\text{SnO}_2$ nanocrystals by a novel single source precursor approach, Vinod Kumar, <b>S. Uma</b> , R. Nagarajan, Presented at International Conference on Materials for Advanced Technologies, Suntec, Singapore (June 2011).
15. Investigation of the synthesis, structure and photocatalytic applications of anion incorporated layered oxides, Vaishali Thakral, Vinod Kumar, <b>S. Uma</b> , Poster Presented at International Symposium on Materials Chemistry 2010, Bhabha Atomic Research Centre, Mumbai (December 2010)).
16. Synthesis and Investigation of Structural and Photocatalytic Properties of Mixed Metal Oxides, S. Uma, Jyoti Singh, Mamta Kharkwal, and Vaishali Thakral, Poster Presented in 2 <sup>nd</sup> DAE-BRNS International Symposium on Materials Chemistry, December 2-6, 2008, Mumbai, India
<b>Total Publication Profile</b> optional
<b>Books</b> Nil
<b>In Indexed/ Peer Reviewed Journals</b>
<b>Articles</b> Nil
<b>Public Service / University Service / Consulting Activity</b> Nil
<b>Professional Societies Memberships</b> <b>Editorial Board Member, Scientific Reports</b> <b>Member in Materials Research Society of India, and Society for Materials Chemistry, India</b>
<b>Projects (Major Grants / Collaborations)</b> DST funded project titled, Exploratory Synthetic Investigation to Recognize Novel Solid Oxide Materials with an Emphasis on Layered Structures
<b>Other Details</b>

(Signature of Faculty Member)

(Signature & Stamp  
of Head of the Department)