




University Faculty Details Page on DU Web-site

Title	Professor	First Name	Sitharaman	Last Name	Uma	
Designation	Professor					
Department	Chemistry					
Address (Campus)	Department of Chemistry					
(Residence)	University of Delhi					
Phone No (Campus)	Delhi 110 007					
(Residence) optional						
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Email	suma@chemistry.du.ac.in					
Web-Page						
Education						
Subject	Institution		Year	Details		
Ph. D in Solid State Chemistry	Indian Institute of Science, Bangalore		1995			
Career Profile						
Organization / Institution	Designation		Duration	Role		
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		
Research Interests / Specialization						
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						
Teaching Experience (Subjects/Courses Taught)						
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						
Honors & Awards						
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						
Publications (LAST FIVE YEARS)						

<u>Books / Monographs</u>			
<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>
2017	Chapter on complex layered oxides	(Vol. 1, Materials and Structure of Solids), Handbook of Solid State Chemistry Wiley, (2017).	Nil
2017	Facile synthesis and characterization of acetate intercalated Co-La layered double hydroxide	J. Rare Earths, 35 , 474-479 (2017).	Meenakshi Pokhriyal and R. Nagarajan
2016	Single step hydrothermal synthesis of beyerite, $\text{CaBi}_2\text{O}_2(\text{CO}_3)_2$ for the fabrication of UV-visible light photocatalyst $\text{BiOI}/\text{CaBi}_2\text{O}_2(\text{CO}_3)_2$	RSC Advances, 2016, 6, 38252-38262	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	Materials Research Bulletin, 2016, 76, 118-123	Akanksha Gupta
2015	Synthesis of zincblende CuInS_2 and Fe-substituted CuInS_2 by thereaction of binary colloids	Colloids and Surfaces A: Physicochemical Engineering Aspects, 2015, 481, 269-275	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 Solid State Chemistry, 2015, 230, 369-373	Akanksha Gupta
2015	Interesting cationic ($\text{Li}^+/\text{Fe}^{3+}/\text{Te}^{6+}$) variations in new rocksalt ordered	Journal of Chemical Sciences, 127, 225-233	Akanksha Gupta

	structures		
2014	Evidence of cationic mixing and ordering in the honeycomb layer of Li_4MSbO_6 (M (III) = Cr, Mn, Al, Ga) (S.G. C2/c) oxides	Dalton Transaction, 2014, 43, 12050-12057	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	Dalton Transactions, 2013, 42, 14992-14998.	Vinod Kumar and Akanksha Gupta
2013	Precursor driven one pot synthesis of Wurtzite and Chalcopyrite CuFeS_2	Chem. Commun. 2013, 49, 7316-7318.	Prashant Kumar and Rajamani Nagarajan
2012	Single step hydrothermal based synthesis of $\text{M(II)Sb}_2\text{O}_6$ (M = Cd, and Zn) type antimonates and their photocatalytic properties	Bull. Mater. Sci. 2013, 35, 287-291.	Jyoti Singh and Neha Bhardwaj
2012	Novel Lithium-Containing Honeycomb Structures	Inorganic Chemistry, 2012, 51. 10471-10473	Vinod Kumar, Neha Bhardwaj, Nobel Tomar, Vaishali Thakral

Articles

Nil

Conference Presentations

1. Exploration and Identification of new solid state structures aided by single crystal X-ray diffraction, **Sitharaman Uma** (Invited talk), First south east Asia conference on crystal engineering (SEACCE), University of Jayewardenepura, Colombo, Sri Lanka, September 2016.
2. Synthesis and Characterization of Solid State Materials: Potential Solid Electrolytes, and Electrodes, Talk presented in 99th Canadian Chemistry Conference and Exhibition, June 06, 2016, Halifax, Canada.

3. Investigation of catalytic and photocatalytic applications of $\text{CaBi}_2\text{O}_2(\text{CO}_3)_2$ and $\text{BiOI}/\text{CaBi}_2\text{O}_2(\text{CO}_3)_2$, Vidhu Malik, Meenakshi Pokhriyal and Sitharaman Uma, Poster presented in International Conference on Materials Science & Technology (ICMTech-2016), March 1-4, 2016, University of Delhi
4. Investigation of $\text{BiOI}/\text{CaBi}_2\text{O}_2(\text{CO}_3)_2$ 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
5. Synthesis and Characterization of $\text{BiOI}/\text{CaBi}_2\text{O}_2(\text{CO}_3)_2$ composite as photocatalyst utilizing UV/visible light irradiation, Vidhu Malik, Meenakshi Pokhriyal and Sitharaman Uma, Poster presented on 9th National Conference on Solid State Chemistry and Allied Areas, ISCAS-2015, May 8-10, 2015, University of Delhi
6. Investigations of the various cationic distributions in new lithium based rocksalt ordered structures, Invited talk in 9th National Conference on Solid State Chemistry and Allied Areas, ISCAS-2015, May 8-10, 2015, University of Delhi
7. Synthesis and structural characterization of new phosphosilicate apatites and investigation of photoluminescence by Eu^{3+} doping, Akanksha Gupta, Meenakshi Pokhriyal and Sitharaman Uma, Poster presented in the 5th DAE-BRNS International Symposium on Materials Chemistry, December 09-13, 2014, Mumbai, India
8. Precursor driven one pot synthesis of Wurtzite and Chalcopyrite CuFeS_2 , 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
9. Lithium Containing Layered Mixed Metal Oxides With Honeycomb Ordered Structures, Akanksha Gupta, Neha Bhardwaj, Vinod Kumar and Sitharaman Uma, Poster presented in MTIC-XV, December 13-16, 2013, 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, 4th 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 **S. Uma**, Poster Presented at International Conference on Materials for Advanced Technologies, Suntec, Singapore (June 2011).
14. Optical and photocatalytic properties of heavily doped SnO_2 nanocrystals by a novel single source precursor approach, Vinod Kumar, **S. Uma**, 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, **S. Uma**, 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 nd DAE-BRNS International Symposium on Materials Chemistry, December 2-6, 2008, Mumbai, India
Total Publication Profile optional
<u>Books</u> Nil
<u>In Indexed/ Peer Reviewed Journals</u>
<u>Articles</u> Nil
Public Service / University Service / Consulting Activity
Nil
Professional Societies Memberships
Editorial Board Member, Scientific Reports Member in Materials Research Society of India, and Society for Materials Chemistry, India
Projects (Major Grants / Collaborations)
DST funded project titled, Exploratory Synthetic Investigation to Recognize Novel Solid Oxide Materials with an Emphasis on Layered Structures
Other Details