Name	**SHUBRA SINGH**	Gender	**Female**	
Designation	**Assistant Professor**	Department	**Crystal Growth Centre**	
University	**Anna University, Chennai**			
Discipline	**Physical Sciences**			
Area of specialization	**Materials for energy and environmental applications**			
Web page	**https://www.researchgate.net/profile/Shubra_Singh** **https://shubra6.wixsite.com/shubrasinghgroup** https://vidwan.inflibnet.ac.in/myprofile			
Address	**Crystal Growth Centre** **Anna University, Chennai-600025**			

Educational Qualifications		
Degree	Institution	Year
UG	University of Calcutta	2001
PG	University of Calcutta	2003
Ph.D	IIT Madras	2009

Career Profile			
Organization	Designation	Duration	Role
UNIVERSITY OF RENNES, UMR 6226 CNRS, France	CEFIPRA Post doctorate fellow	21.09.2009 to 14.12.2010	Research
IIT MADRAS	SENIOR PROJECT OFFICER	24.05.2011 to 04.01.2012	Research
IIT KHARAGPUR	Assistant Professor	09.01.2012 to 05.08.2012	Teaching and Research
Anna University	DST INSPIRE Faculty	10.08.2012 to 18.01.2016	Teaching and Research
Anna University	UGC Assistant Professor	19.01.2016 to present	Teaching and Research

A. Main subject area of research along with subject-specialization

Materials for energy and environmental applications - Novel materials for Carbondioxide capture, cathode materials for Intermediate temperature Solid oxide fuel cells, Photoactive materials for environmental remediation and water splitting.

B. Total publications - 83

Research Publications (Since 2016)

Sl. No	Title of Paper, Year	Mentioning in order , name/s of authors, journals, volume, page/s	Current Impact Factor	Citation	Editor & Publisher details
1	Enhanced photo-fenton and photoelectrochemical activities in nitrogen doped brownmillerite $KBiFe_2O_5$, (2022)	Durga Sankar Vavilapalli, Santosh Behara, Raja Gopal Peri, Tiju Thomas, Muthuraaman B, Ramachandra Rao M . S., Shubra Singh Scientific Reports, Nature publications 12:5111	4.996	0	Nature publications
3	Development of CdTe quantum dot supported $ZnIn_2S_4$ hierarchical microflowers for improved photocatalytic activity (2022)	R. Janani, S. Sumathi, Bhavana Gupta, A.R. Mahammed Shaheer, Sasikala Ganapathy, Bernaurdshaw Neppolian, Somnath C Roy, Rashmi Channakrishnappa, Bishwajit Paul, Shubra Singh, Journal of Environmental Chemical Engineering 10, 107030	7.968	1	Science Direct, Elsevier
2	Enhanced photocatalytic and photoelectrochemical performance of $KBiFe_2O_5/g\text{-}C_3N_4$ heterojunction photocatalyst under visible light, accepted (2022)	Durga Sankar Vavilapalli, Raja Gopal Peri , Muthuraaman B , Kishore Sridharan , M.S. Ramachandra Rao, Shubra Singh Physica B: Condensed Matter 648 414411	3	-	Science Direct, Elsevier
4	Growth of brownmillerite $Ca_2Fe_2O_5$ single crystals under air, oxygen and argon atmospheres using optical floating zone technique: a comparative study, March (2022)	Suchita Dhankhar, Durga Sankar Vavilapalli, Gopal Bhalerao, Shubra Singh, Bulletin of Materials Science 45(1):31	1.878	0	Indian Academy of Sciences, Springer
5	$g\text{-}C_3N_4/Ca_2Fe_2O_5$ heterostructures for enhanced photocatalytic degradation of organic effluents under sunlight (2021)	Durga Sankar Vavilapalli, Raja Gopal Peri, R. K. Sharma, U. K. Goutham, B Muthuraaman, M. S. Ramachandra Rao, Shubra Singh Scientific Reports, Nature publications 11:19639	4.996	5	Nature publications
6	Electrochemical properties of brownmillerite structured $KBiFe_2O_5$ (2021)	Durga Sankar Vavilapalli, Raja Gopal Per , Soma Banik, B Muthuraaman, M. S. Ramachandra Rao, Shubra Singh, Applied Surface Science Advances 6, 100162	3.5	1	Elsevier
7	Nitrogen -Ion Implantation Induced Bandgap Tailoring in Multifunctional Brownmillerite KBiFe2O5, (2021)	Durga Sankar Vavilapalli, Soma Banik, Asokan Kandasami, M. S. Ramachandra Rao, and Shubra Singh ECS J. Solid State Sci. Technol. 10 061010	2.070	2	IOP
8	Controlled synthesis of photoactive gallium based sillenite single crystal and its application in environmental remediation (2021)	V. Raja Preethi, R.Radha, Rohith K, Vinod S. Balakumar, Bhavana Gupta, Shubra Singh, Solar Energy, 220, 890-900	7.188	1	Elsevier
9	Rapid sonochemical synthesis of copper doped	Saeed Ahmed, Irene M.C.Lo, ShubraSingh, Kishore Sridharan,	5.6	13	Elsevier

	ZnO grafted on graphene as a multi-component hierarchically structured visible-light-driven photocatalyst,(2021)	Materials Research Bulletin, 111290			
10	Facile one pot in situ synthesis of $ZnS–ZnIn_2S_4$ composite for improved photocatalytic applications, (2021)	R. Janani, Ambrose A. Melvin, Shubra Singh, Materials Science in Semiconductor Processing, 122, , pp. 105480	4.644	16	Elsevier,
11	Hierarchical Ternary Sulfides as Effective Photocatalyst for Hydrogen Generation Through Water Splitting: A Review on the Performance of ZnIn2S4, (2021)	Ravichandran Janani, Raja Preethi V, Shubra Singh, Aishwarya Rani and Chang-Tang Chang, Catalysts, 11(2), 277	4.501	5	MDPI
12	Nitrogen Incorporated Photoactive Brownmillerite $Ca_2Fe_2O_5$ for Energy and Environmental Applications, (2020)	Durga SankarVavilapalli, Soma Banik, RajaGopal Peri, B. Muthuraaman, M. Muralidhar, M. Murakami, A. Klimkowicz, K.Asokan, M. S. Ramachandra Rao & Shubra Singh, Scientific Reports, natureresearch 10:2713	4.996	13	Nature publications
13	Growth of sillenite $Bi_{12}FeO_{20}$ single crystals: Structural, Thermal, Optical, Photocatalytic features and first principle calculations, (2020)	Durga Sankar Vavilapalli, Ambrose A Melvin, Bellarmine F, Ramanjaneyulu Mannam, Velaga Srihari, Himanshu K. Poswal, Ambesh Dixit, M. S. Ramachandra Rao, Shubra Singh, Scientific Reports, Nature publications	4.996	10	Nature publications
14	Photoactive brownmillerite $Ba_2In_2O_5$ for photocatalytic degradation of organic pollutant, October 2020	Raja Preethi V, Sangeeth John, Gopalkrishna Bhalerao, Bhavana Gupta, Jaspreet Singh, Shubra Singh, Solid State Sciences 109, 106450	3.752	1	Science Direct, Elsevier
15	Electrical properties of nitric acid and DMSO treated PEDOT:PSS/n-Si hybrid heterostructures for optoelectronic applications, 2020	R. Anitha, Sumithra S. Menon, Gopalkrishna Bhalerao, Pradeep Siddham, K. Baskar, Shubra Singh, J. APPL. POLYM. SCI.	3.125	7	Wiley publications
16	Multifunctional hierarchical $ZnIn_2S_{4\pm\delta}$microflowers with photocatalytic and pseudocapacitive behavior (2019)	R. Janani, Malaya K.SahooBhavana Gupta, G.RangaRao, Shubra Singh, Solar Energy	7.188	11	Elsevier
17	Multifunctional brownmillerite $KBiFe_2O_5$: Structural, magento-dielectric, optical, photoelectrochemical studies and enhanced photocatalytic activity over perovskite BiFeO3(2019)	Durga Sankar Vavilapalli, Ambrose A. Melvin, S. Kavita, A.K. Yadav, S.N. Jha, D. Bhattacharyya, Saurav Ch. Sarma, Sebastian C. Petere, M.S. Ramachandra Rao, Shubra Singh, Solar Energy Materials and Solar Cells 200 109940	7.305	22	Science Direct, Elsevier

18	$Zn_{1-x}Ga_xO_{1-y}N_y$– Graphene oxide nanocomposite–for enhanced visible Light photocatalytic activity	R. Janani, Sumithra Sivadas Menon, Gopalkrishna Bhalerao, Bhavana Gupta, Shubra Singh, Dyes and Pigments 165 249–255	5.122	9	Science Direct, Elsevier
19	ZnO:InN oxynitride: Anovel and unconventional photocatalyst for efficient UV-visible light driven Hydrogen evolution from Water, (2019)	Sumithra Sivadas Menon, Hafeez Yusuf Hafeez Bhavana Gupta, K.Baskar Gopal Bhalerao , Shamima Hussain Bernaurdshaw Neppolian, Shubra Singh, Renewable Energy, 141, 2019, 760-769	8.634	13	Science Direct, Elsevier
20	Photoactive Brownmillerite Multiferroic $KBiFe_2O_5$ and Its Potential Application in Sunlight-Driven Photocatalysis, 2018	Durga Sankar Vavilapalli, Srikanti, K, Ramanjaneyulu M, Brajesh Tiwari; K Mohan Kant, M. S. R. Rao, Shubra Singh, ACS Omega, , 3 (12), 16643-16650	4.132	22	ACS Publications
21	Large area ultraviolet photodetector on surface modified Si:GaN layers (2018)	Anitha R., Ramesh R., Loganathan R., Durga Sankar Vavilapalli, K. Baskar, Shubra Singh, Applied Surface Science, 435 1057–1064	7.392	19	Science Direct, Elsevier
22	Hybrid gallium nitride/organic heterojunction with improved electrical properties for optoelectronic applications(2018)	Anitha , Durga Sankar Vavilapalli, Sumithra Sivadas Menon, S. Surender, K. Baskar, and Shubra Singh, Journal of Materials Science, Elec. Mat 53, 11553–11561	4.682	7	Springer publications
23	Development of $Zn_{1-x-y}Ga_xCo_yO_{1-z}N_z$ as a non-oxide semiconductor material with visible light photoelectrochemical activity (2018)	Sumithra Sivadas Menon, Gopal Bhalerao, Bhavana Gupta, K. Baskar, Shubra Singh, Vacuum 154 296–301	4.11	1	Science Direct, Elsevier
24	Formation of graphitic and diamond-like carbon by low energy carbon ion implantation on c plane sapphire substrate(2018)	S.Pradeep, , K.Prabakaran, , Shubra Singh, K.Asokan, K.Baskar, Thin Solid Films 649 12–1613	2.358	4	Science Direct, Elsevier
25	Growth of gold-palladium alloy catalyzed gallium nitride nanowires by chemical vapour deposition, (2018)	S. Sanjay, K. Prabakaran, Shubra Singh, K. Baskar, Materials Letters 217 100–103	3.574	12	Science Direct, Elsevier
26	The role of indium composition on thermo-electric properties ofInGaN/GaN heterostructures grown by MOCVD (2018)	S. Surender, S. Pradeep, K. Prabakaran, S.M. Sumithra, Shubra Singh, K. Baskar, Journal of Alloys and Compounds 734 48e5449	6.371	13	Science Direct, Elsevier
27	Passivation of Yellow Luminescence of MOCVD Grown InGaN/GaN Heterostructures by Nitrogen Ion Implantation (2018)	Surender, S. Pradeep, K. Prabakaran, Sumithra Sivadas Menon, I. Davis Jacob, Shubra Singh, K. Baskar, Nuclear Inst. and Methods in Physics Research, B, Volume 433, p. 76-79	1.279	2	Science Direct, Elsevier

28	Growth and comparison of single crystals and polycrystalline brownmillerite $Ca_2Fe_2O_5$(2017)	Suchita Dhankhar, Gopal Bhalerao, S. Ganesamoorthy, K. Baskar, Shubra Singh, Journal of Crystal Growth, 468, 311-315	1.83	17	Science Direct, Elsevier
29	Electrochemical performance of brownmillerite calcium ferrite for application as supercapacitor(2017)	Suchita Dhankhar, Sumithra Sivadas Menon, Bhavana Gupta, K Baskar and Shubra Singh , AIP conference proceedings 1832, 080050	-	3	AIP Publishing
30	Comparative study on $Ga_{1-x}Zn_xN_{1-y}O_y$ oxynitride synthesized by different techniques and its application in photocatalytic hydrogen production, (2017)	Sumithra Sivadas Menon, K. Baskar, Shubra Singh, Journal of Crystal Growth, Volume 468, p. 139-143	1.83	2	Science Direct, Elsevier
31	Effect of low Cobalt doping on morphology and properties of calcium ferrite and its application as cathode in Solid oxide Fuel cell (2017)	Suchita Dhankhar; Pankaj Tiwari; K Baskar; Suddhasatwa Basu; Shubra Singh, Current Applied. Physics, 17, 467-473	2.856	10	Elsevier
32	Effect of Silicon doping in InGaN/GaN Heterostructures Grown by MOCVD (2017)	S. Surender, S. Pradeep, K. Prabakaran, Shubra Singh, R. Ramesh, K. Baskar, AIP Proceedings	-	-	AIP Publishing
33	Effect of varying Ga content in ZnO:GaN solid solution synthesized by solution combustion technique for photocatalytic applications (2017);	Sumithra Sivadas Menon, R. Janani, K. Baskar, Bhavana Gupta, and Shubra Singh, AIP Conference Proceedings 1832, 050089 doi: 10.1063/1.4980322	-	2	AIP Publishing
34	Self-Catalytic Growth of AlN microrods on sapphire substrate, (2017)	B. Kuppulingam, Shubra Singh and K. Baskar, Journal of Crystal Growth, 468 856–861	1.83	1	Science Direct, Elsevier
35	Effect of Growth Temperature on InGaN/GaN Heterostructures Grown by MOCVD,(2017)	S. Surender , K. Prabakaran , R. Loganathan , S. Pradeep , Shubra Singh , K. Baskar, Journal of Crystal Growth 468, p. 249-251.	1.83	12	Science Direct, Elsevier
36	Blue-Green-Red Emission from InGaN/GaN Heterostructures Grown by MOCVD (2017)	K. Prabakaran, R. Ramesh, M. Jayasakthi, R. Loganathan, S. Surender, S. Pradeep, Shubra Singh, K. Baskar, Materials today proceedings, Volume 4,12577-12581	Cite score - 2.3	1	Science Direct, Elsevier
37	Direct and Facile Room-Temperature Synthesis of Nanocrystalline Calcium Sulfate Dihydrate (Gypsum) (2016)	Kapil Gupta, Shubra Singh, and M. S. R. Rao, Cryst. Growth and Design, 16, 3256−3261	4.01	10	ACS Publications
38	Anomalous red emission with competition and coexistence of defect and band edge emission in photo-electrochemically active	Sumithra Sivadas Menon, Bhavana Gupta, Sayantani Sen, Brajesh Tiwari, K. Baskar, Pallabi Pramanik, Anirban Bhattacharyya and Shubra Singh, RSC Adv., 6, 103081	4.036	7	Royal Society of Chemistry

	$(Zn_{0.97}Ga_{0.03})(O_{0.95}N_{0.05})$ solid solution (2016)				
39	Growth behavior of GaN nanowires on c-plane sapphire substrate by applying various catalysts, (2016)	B. Kuppulingam, G. M. Bhalerao, Shubra Singh, K. Baskar, Appl. Phys. A, 122:667	2.983	3	Springer
40	Large Area Transparent ZnO Photodetectors with Au Wire Network Electrodes, (2016)	Kiruthika Shanmugam, Shubra Singh and G U Kulkarni, RSC Advances, 6, 44668-44672	4.036	17	Royal Sciety of Chemistry
41	Structural, morphology and optical properties of nanocrystalline GaN and AlGaN alloys prepared by EDTA complex route(2016)	B. Kuppulingam, S.E. Al Garni, S. Singh, K. Baskar, Materials Research Bulletin, 77, 228–235	5.6	5	Science Direct, Elsevier
42	Synthesis Of GaN:ZnO Solid Solution by Solution Combustion Method And Characterization For Photocatalytic Application(2016)	Sumithra Sivadas Menon, R. Anitha, Bhavana Gupta, K. Baskar, Shubra Singh ,AIP Proceedings 1731, 050025	-	6	AIP Publicatio ns
43	Synthesis and Characterization of Polycrystalline Brownmillerite Co doped $Ca_2Fe_2O_5$, (2016)	Suchita Dhankhar; Gopal Bhalerao; K Baskar; Shubra Singh, AIP Proceedings 1731, 140032	-	6	AIP Publicati ons

C. Books edited/written (since 2016)

Title of Book with ISBN Number	Name/s of authors	Remarks
Book Chapter- Growth and Characterization of Gallium Nitride Nanowires on Nickel/Sapphire Template by Chemical Vapour Deposition, The Physics of Semiconductor Devices. (2017). Springer Proceedings in Physics, vol 215, ISBN -13:978-3-319-97603-7	Sanjay S., Kandasamy P., Singh S., Baskar K.	Sharma R., Rawal D. (Eds.), Springer, Cham
Book Chapter- Optical Properties of Fe Based Perovskite and Oxygen Deficient Perovskite Compounds: A comparison, The Physics of Semiconductor Devices, Springer proceedings in physics 215, Chapter 70, 447, 2019 ISBN-10: 3319976036	Vavilapalli Durga Sankar, Shubra Singh	Sharma R., Rawal D. (Eds.), Springer, Cham
Book Chapter- Effect of Growth Time on Thickness of InAlN/GaN Heterostructures Grown by MOCVD, The Physics of Semiconductor Devices (2017) Springer Proceedings in Physics, vol 215, ISBN-13: 978-3-319-97603-7	P. Siddham, S. Subburaj, P. Kandasamy, Jayasakthi M, Shubra Singh, Baskar Krishnan	Sharma R., Rawal D. (Eds.), Springer, Cham
Book Chapter- Structural and Optical Characterization of InGaN/GaN Based Quantum Well Structures Grown by MOCVD: The Physics of Semiconductor Devices, Springer Proceedings in Physics, vol 215, 2019 ISBN-13: 978-3-319-97603-7	P. Kandasamy, S. Subburaj, P. Siddham, S. Sanjay, Jayasakthi M, R. Ramesh, E. Faulques, M. Balaji, Shubra Singh, Baskar Krishnan	Sharma R., Rawal D. (Eds.), Springer, Cham

D. Supervision at Ph.D level

Title of thesis	Year in which awarded
Investigation of $ZnIn_2S_4$ as a visible light responsive photocatalyst for hydrogen generation and water purification applications	2022
Multifunctional Brownmillerites for energy and environmental applications	2021
Development & Optimization of various inorganic and organic semiconductor based heterostructures for optoelectronic applications	2020
Investigation of $Ca_2Fe_2O_5$ in single crystalline and polycrystalline form	2018
Investigations on Development of ZnO based Oxynitrides for Photocatalytic Applications	2018
Synthesis and Investigation of Sillenite $Bi_{24}Ga_2O_{39}$ and Brownmillerite $Ba_2In_2O_5$ for Hydrogen production and water pollutant degradation	Thesis submitted

E. Patents filed, if any,

Title	Patent details	Remarks
Method For Synthesis Of Sillenite $Bi_{12}feo_{20}$ Single Crystal	IN376142	Granted, India 31/08/2021
Method For Developing $Ca_2fe_2o_5$ Nanoparticles For Enhanced Photocatalysis Under Direct Sunlight	IN360199	Granted, India 04/03/2021
A Oxygen-Deficient Nanomaterial For Reversible Co_2 Capture At Room Temperature	1N303301B	Granted, India 30-11-2018
A Novel Method For Synthesis Of Nanostructured Gypsum ($CaSO_4.2H_2O$)	IN314806B	Granted, India 05-07-2019

F. Funded research projects

Sl. No.	Project Title	Name of the Funding Agency (UGC,DBT,etc.,)	From (mm/yy)	To (mm/yy)	PI / Co-PI	Budget (Rs. in lakh)
1	Fenton Process Adapted For Deactivation Of Antibacterial Resistant Genes And Antibiotic Removal Using Passivation Bypassed Fe Alloy Rate Controlled Using Photoactivity	DST	01/21	01/23	PI	54.18
2	Design and development of LED/Solar light reaction chamber based Photocatalytic Fuel Cell for wastewater treatment and simultaneous energy production using novel brownmillerite heterostructures	SERB	08/22	08/24	PI	23.79
3	Solar Light Driven Bulk And Nanostructured Oxygen Deficient Perovskites For Efficient Dye Degradation And Industrial Waste Water Treatment Applications	SERB	07/18	07/21	PI	37.69
4	Rusa2.0 (PO14- Development Of Fuel Cell Components For Hybrid Electric Vehicle Applications)	RUSA	12/20	12/22	Co-PI	64
5	Tuning Of Photoactivity Of Efficient Modified Brownmillerites By Swift Heavy Ion Irradiation For Energy And Environmental Applications	IUAC, New Delhi	03/21	03/24	PI	5.29
6	Thermochemical And Photocatalytic Conversion Of Solar Energy To Solar Fuels Solar Fuel Project Under Dst Solar Energy Harnessing Centr	DST SERI	06/18	12/22	Co-PI	29.5
7	Development of single crystal Gallium Oxide growth technology for power device applications	DRDO	03/19	03/22	Co-PI	144
8	Long term CRS proposals under the aegis of UGC-DAE CSR	UGC-DAE	09/14	08/17	Co-PI	6.39
9	UGC Research grant	UGC	01/18	10/20	PI	06
10	Development of bulk and thin films of co doped brownmillerite materials as mixed electronic ionic conducting compounds for solid oxide fuel cell applications	SERB	11/14	11/17	PI	8.64
11	Realization of high oxygen ion mobility in Ca and Sr based compounds	DST-INSPIRE	08/12	08/17	PI	71
12	Development of single crystalline and ceramic form of Garnettype $Li_{7-x}Ga_xLa_3Zr_{2-y}Ta_yO_{12}$ for next generation battery applications.	UGC DAE	Just sanctioned	-	-	Funds to be released

G. Papers presented in National/International conferences (5 most important ones)

Name of the Conference	Dates/Place	Nature of Participation	Title of the paper etc.
MRSI Conclave 2021	22.12.2021, IIT Madras	Invited talk	Structure-property correlation of materials for Energy and environmental Applications
International conference on laser deposition (ICOLD 2017)	November 20-22, 2017	Invited talk	Materials for Energy and Environment
Nanostructured Brownmillerites and Oxynitrides for Renewable Energy Applications (ISMANAM-2019)	8-12, July 2019, IIT Madras	Contributory Oral talk	Nanostructured Brownmillerites and Oxynitrides for Renewable Energy Applications
Third International conference on Nanotechnology for better living (ICNLB) 2016	25-29 May 2016	Contributory Oral talk (second prize)	Developing Multifunctional Nanomaterials for Alternate/Renewable Energy Applications
IUMRS-ICYRAM 2016	12.12.2016	Contributory Oral talk	On easily synthesized multifunctional nanomaterials for Energy Applications

H. Administrative Assignments during the period of report

1. Academic council Member, University Nominee, St. Mary's College, Tuticurin (2017-2019)
2. Course Co-ordinator Engineering Physics (AcTech Campus, Anna University) academic session Aug-Dec (2019)
3. Course Co-ordinator, Basic Sciences Lab, Ist Semester, Nov 2020-Feb 2021
4. Anna University representative for Tamil Nadu Common Entrance test 2021, Tiruchirapalli zone, 2021
5. Chief superintendent for PhD examinations, CGC (2017)
6. Screening committee member, Technology exhibition, CTDT, Anna University
7. PhD interview committee member, Anna University, 2020
8. Faculty incharge of purchase, Installtion and operation of HRTEM under ICRFT since 2017

a. CTDT Panel member for selection of project recruitments (2019-2020 and 2021-2023)

9. Member of several Purchase committee panels throughout the year
10. Participated in administrative work related to FIST, UGC Annual report
11. Participated in NAAC work related to Centre, 2021
12. Expert committee member for reevaluation of answer scripts of Nov/Dec 2018 examinations in Open day.
13. Expert member, Open day evaluation, UG
14. Adjunct Faculty Member, Centre for Energy Storage and Technology, Anna University

i) Invited talks

- Invited talk, Session-Nanomaterials synthesis and solution route, MRSI Conclave, IIT Madras 2021
- Resource person, MHRD-SPARC, VIT Vellore, 09.01.2020
- Invited talk at International conference on Laser deposition (icold 2017) Nov 20-22, IIT Madras, 2017
- Invited talk at Science city 23.01.2019, "Principles and Applications of Nanoscience and Nanotechnolo from the 23rd to 25th January, 2019 at the Science City Auditorium
- Invited talk at Symposium on Advanced materials, VIT, Chennai Feb 1, 2019
- Expert lecture as resource person on "UV-Visible Spectroscopy: Basics and applications" in DST sponsored Karyashala Programme, 26.03.2022
- Invited talk in FDP programme on 01.02.2019, CGC, Anna University
- Invited speaker, Young Science Leader series, 13 September, 2020
- Invited lecture in the workshop on "recent trends in medical diagnosis techniques using exhaled breath biomarkers" scheduled to be held on 8th and 9th of January 2020
- Expert lecture, One day national workshop on smart materials, VIT Vellore, 27 April (2016)
- Contributory talk at ISMANAM 2019, IIT Madras, Chennai, 8th July 2019
- Invited talk - Azadi ka Amrit mahotsav, Department of Physics, Bangalore University, 2022
- Invited talk - Azadi ka Amrit mahotsav, Department of Chemistry, Bangalore University, 2021
- Invited talk at Department of Physics, ICT Mumbai, May 2022
- Invited talk in the DST-FIST and DST SERB workshop titled "Thin-film Deposition and Device Fabrication" on Jan 07-09,2022, VIT Vellore
- Invited lecture on "Advanced Materials for energy: Synthesis and Application" on 09/02/2018(Friday) a 2:00pm to 4:30pm in Theivanai Ammal College for Women (Autonomous), Villupuram
- Resource person, SERB Sponsored- Hands on Training & workshop for Utilization of Microscopic & Spectroscopic Equipment, March 21-26, 2022
- Invited talk, XXVI-NSCGE, 26th National Seminar on Crystal Growth and Epitaxy, March 14-15, 2016

ii) Workshop/Conferences/FDP/Symposium/Training Program organized

- Organizing secretary, UGC XII Plan short term course, Jan. 2017
- Co-ordinator, International workshop on crystalline Materials and Applications (IWCMA 2019), 03 Jan – 05 Jan 2019
- Co-ordinator for International Workshop 2018
- Co-ordinating Team, National Webinar series on Women in STEM:Academia to Industry (2020)
- Co-ordinator Member, International Workshop on Advanced Materials and Device Technology November 22 - 24, IWAMDT-2017, Anna University
- Co-organizer, Lecture cum demonstration programme, Crystal Growth Centre, 2017
- Course Co-ordinator, GIAN 2018, Crystal Growth Centre, Anna University

iii) Innovation in research and teaching-

- Work related to new material for water purification **published in print** (The New Indian Express) September 2020

iv) Awards and rewards

- ***Distinguished researcher award 2021*****,** Anna University
- ***INSA Visiting Scientist Fellowship Award***, 2017-2018, by INSA
- ***Young Female Scientist Award*** in the third international conference on "Nanotechnology for Better Living, NBL 2016 at Srinagar, 25-28 Nov 2016.
- UGC-FRP Award
- DST Inspire Faculty Award
- **Travel Grant for Young scientists (below 35 years) under International Travel Support Scheme (ITS)** by SERB to attend MRS Spring Meeting at SAN Francisco, California, 2014.
- **Visiting Faculty Fellowship (2014-2015) from JNCASR, Bangalore, India.**
- ***American Ceramic Society appreciation for Reviewer***, 2017
- Other Awards by PhD Students**:** Fullbright scholarship, QuantEmX Scientist Exchange Award from ICAM, USA, Best poster awards at international conferences
- **Prof. Lashkar Best Thesis Award** in PhD (Department of Physics) in July 2009 at Indian Institute of Technology Madras (IITM), India

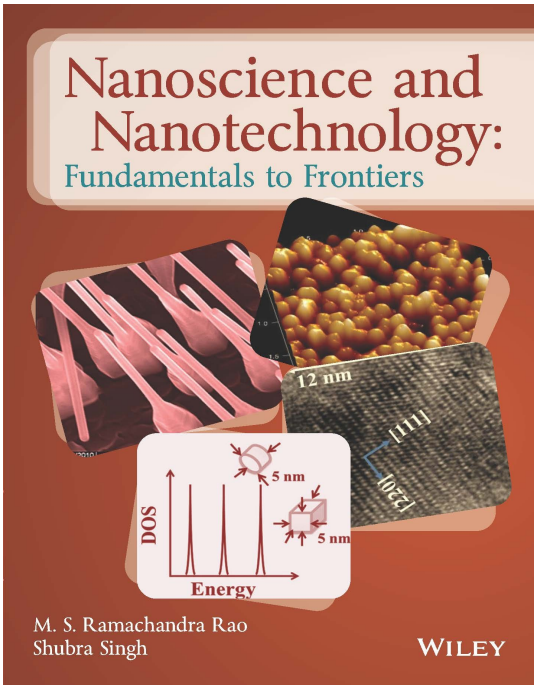
- **CEFIPRA Post doctorate Fellow** by Indo-French Centre for the Promotion of Advanced Research (IFCPAR), New Delhi, India, 2009.
- ISRS **best paper award** at the International symposium for Research Scholars (ISRS 2008 and ISRS 2014) IIT Madras, India
- **All India rank of 40** in the **GATE** examinations in 2004 with **98.47** percentile conducted nationwide, granted by Indian Institute of Technologies, India
- Award of **Lectureship NET** (National Eligibility Test) in Physical Sciences by Joint CSIR-UGC (2003)
- Research student awarded Winner::Oral presentation to research student at BiC-FM, Skoltech Institute of Science & Technology, Russia
- ***Best presentation award*** received by MSc project student, 1st Virtual Summer School of nanoscience and nanomaterials, 10-30th July 2020, Organized by University of Madras
- ***Best Poster Award (National Symposium Crystal Growth & Epitaxy*), Chennai, 2016 to PhD student,**
- **Four best paper awards to research group**

v) Membership of the academic bodies

- Life member: **Materials Research Society of India (MRSI)**
- Life member: **Indian Science Congress**

vi) Co-curricular and extra- curricular activities

- Reviewer, Indian adaptation of the "Introduction to Nanotechnology by Charles Poole, Frank Owens"
- Co-Chair, MRSI Conclave 2021, IIT Madras
- Member of Slack workspace Office of the Principal Scientific Adviser to Government of India, 2019-2020
- Young Science Leadership Virtual Internship: Mentor, 2020
- Advisory committee icold-2017, IIT Madras
- Chaired the session at IWAN 2017, Centre for Nanoscience and Technology, Anna University, Chennai
- Member, Assessment committee, CSIR- JRF to SRF, Dept. of Chemistry, IIT Madras, 2020
- Chaired the session at NANOMEET 2017, National Centre for Nanoscience and Nanotechnology, University of Madras, Chennai
- DSEHC-Coordinator for Anna University 2018-2021
- Doctoral Committee member for PhD students from VIT, Vellore and SRM University Chennai
- Refereed journals for but not limited to Solar Energy Materials and Solar Cells, RSc Advances, Journal of Luminescence, Scientific Reports, International Journal of Hydrogen Energy, Materials Research Express, Journal of Alloys & Compounds etc.
- Judge for poster presentation NSCoS 2020
- Co-Chair, Track Crystal growth and epitaxy, IWPSD 2023
- Participation: Young Science Leadership Workshop, 2020
- Participated in Online Learning Self-Assessment Organized by North-Eastern Hill University (NEHU), Shillong, Meghalaya
- Supervised several PG projects as well as UG interns, 2016-till present
- Attended the webinar on 27th October 2020, entitled 'Chemical Bonding: Connecting Academia with Industry, Webinar series on women in STEM
- Participated in training programme on "student evaluation and Question paper setting" at Anna University 24-26 October 2016
- External Expert, MSc Physics students dissertation review, VIT Vellore 13 April 2018
- Project Fellow Selection committee meeting held on 01.11.2021 for the TANSCHE Research Grant, University of Madras, 2021
- Research Advisory committee Member for PhD Scholar, Department of Energy, University of Madras since 2021


Nanoscience and Nanotechnology:
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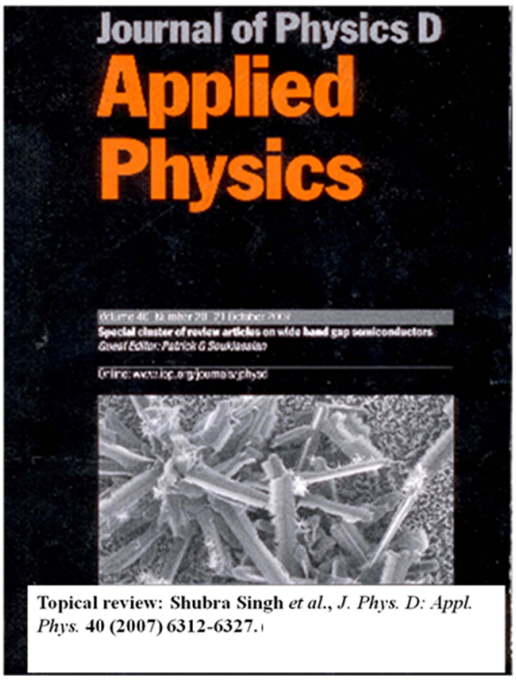
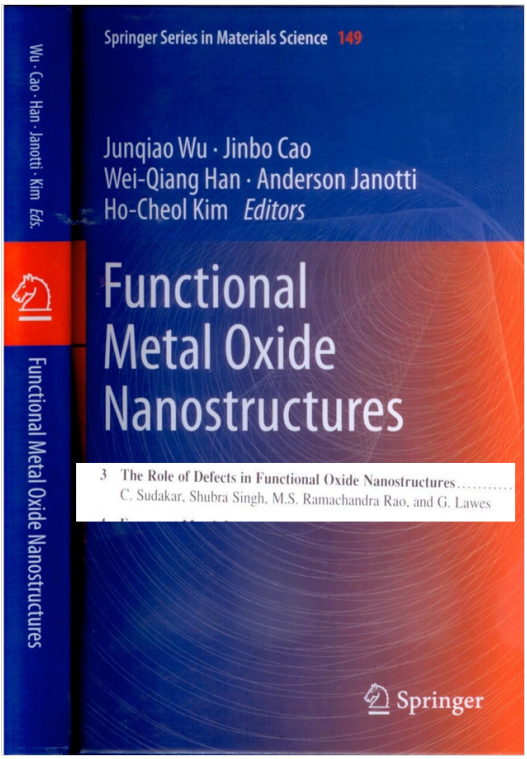

Journal of Physics D
Applied Physics
Special cluster of review articles on wide band gap semiconductors
Topical review: Shubra Singh et al., J. Phys. D: Appl. Phys. 40 (2007) 6312-6327.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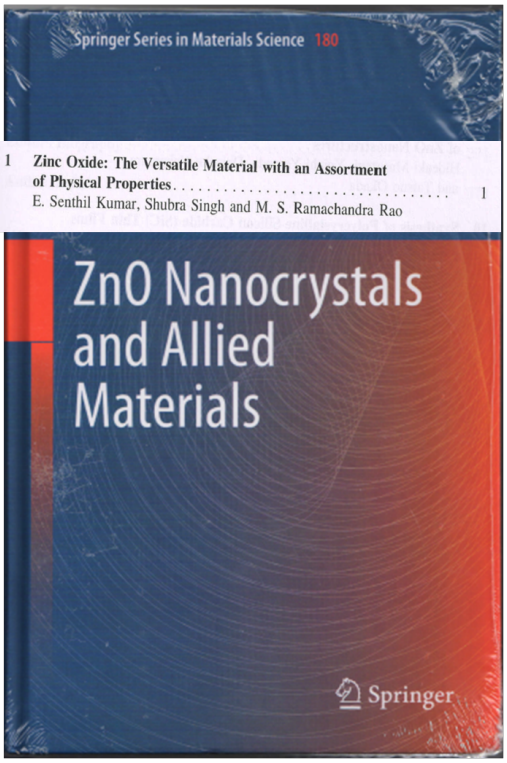
Junqiao Wu · Jinbo Cao
Wei-Qiang Han · Anderson Janotti
Ho-Cheol Kim Editors
Functional Metal Oxide Nanostructures
3 The Role of Defects in Functional Oxide Nanostructures
C. Sudakar, Shubra Singh, M.S. Ramachandra Rao, and G. Lawes
Springer
Wu · Cao · Han · Janotti · Kim Eds.
Functional Metal Oxide Nanostructures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