

Dr. Anuja Datta

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PROFESSIONAL POSITIONS

- September 2011- Present** Research Assistant Professor
Florida Cluster for Advanced Smart Sensor Technologies, Department of Physics,
University of South Florida, Tampa, Florida, USA
- Jan 2009-August 2011** Post-doctoral Research Associate
Department of Physics, University of South Florida, Tampa, Florida, USA
Advisor: Prof. George S. Nolas
- June 2008-Jan 2009** Research Associate
Department of Materials Science, Indian Association for the Cultivation of
Science, Kolkata, India
Supervisor: Prof. Amitava Patra

HIGHLIGHTS OF PROFESSIONAL RECOGNITIONS

- **Editor-in-Chief**, Journal of Nanoscale Materials, Academic Research Journals (India), projected to start January 2015.
- **Conference Co-Organizer and Chair**, Energy Materials Nanotechnology Ceramics (EMN/Ceramics) 2015 Meeting, January 26-29, 2015, Orlando, USA.
- **Guest Editor** for “Nanomaterials for Thermoelectrics 2014” (NMTH14) special issue in Journal of Nanomaterials (Hindwai Publishing Corporation).
- **Session Chair** at 38th International Conference and Expo on Advanced Ceramics and Composites (American Ceramic Society) 2014 Daytona Beach Conference, January 26-31, 2014, Daytona Beach, Florida, USA.
- **Session Chair** at Materials Research Society 2013 Spring Meeting, April 1-5, 2013, San Francisco, USA.
- **Member of Editorial Board** of ISRN Nanomaterials (Hindwai Publishers) 2012 onwards.
- **Member of Editorial Board** of Austin Journal of Nanomedicine and Nanotechnology (Austin Publishers) 2013 onwards.
- **35** peer reviewed journal articles (***h-index* = 14**), **3** book chapters, **1** book, and more than **25** conference presentations.
- **Manuscript Reviewer** of more than 30 international peer reviewed journals.
- **Professional Member** of American Physical Society (APS), American Ceramic Society (ACerS), Materials Research Society (MRS), USA.
- **Alumni** of Jadavpur University and Indian Association of the Cultivation of Science, India

AWARDS

- Faculty Travel Award-University of South Florida College of Arts and Sciences, Spring 2015.
- Materials Research Society (MRS) Childcare Grant for Early Career Materials Scientists, Spring 2013 and Fall 2014 Meetings.

- “Mahatma Gandhi Pravasi Samman 2014” by Non-Resident Indians (NRI) Welfare Society of India (respectfully declined).
- Council of Scientific and Industrial Research-University Grand Commission (CSIR-UGC), National Eligibility Test (NET) fellowship for Senior Research Fellow, India, 2006.
- Jawaharlal Nehru Memorial Fund’ Book award, India, 2006.
- Council of Scientific and Industrial Research-University Grand Commission (CSIR-UGC), National Eligibility Test (NET) fellowship for Junior Research Fellow, India, 2004.
- All India Graduate Aptitude Test in Engineering (GATE) Fellowship, India, 2004.
- University Gold medal for securing first rank in the Jadavpur University, India, 2004.
- CSIR-UGC, NET fellowship for lectureship and Junior Research Fellow, India, 2003.
- National Scholarship for Higher Secondary Examination, Govt. of India, 1999.
- National Scholarship for Secondary Examination, Govt. of India, 1997.

RESEARCH ACHIEVEMENTS (in last 5 years)

I am a Materials Scientist with over 6 years exceptional research experience on developing new materials with heightened functionalities, adding values to the existing products and processes in eco-friendly ‘energy’ and ‘memory’ technologies. The research findings are responsive to people's needs and concerns with integrated solutions that tie energy, natural resources and human health. Few of my recent research achievements include:

- **Developed on the latest technology in ‘Perovskite Solar-Cell’**, by introducing new ‘ferroelectric’ material that may allow solar cells to bypass the conventional energy obstacle and harness much more energy from each photon due to the unique charge-separation process in ferroelectric materials. These Perovskites are revolutionary, simple and inexpensive crystalline material that have high mechanical stability and can replace expensive silicon solar cells.
- **Designed industrial scale cost-effective technique to prepare new class of earth-abundant oxide materials with enhanced ‘ferroelectricity’**. The starting compounds and processes are simple and inexpensive, making the materials scalable and very promising for next-generation memory technology (for use in cell phones, computers and any electronic devices) applications. In contrast, conventional ferroelectric materials are lead-based, pose high threat to the environment.
- **Developed low-cost processing techniques to prepare efficient eco-friendly ‘thermoelectric’ materials** for converting ‘heat energy’ into ‘electricity’ and ‘cooling’. **New materials are designed that had very high ‘thermoelectric’ efficiency.**

EDUCATION

Ph.D. June 2008, Physics

Department of Materials Science, Indian Association for the Cultivation of Science, Kolkata, India.

Dissertation Title: “Tailoring of Optical and Magnetic Properties of Sulfide Semiconductors in Different Nanoforms Using Different Dopants”.

Supervisor: Prof. Amitava Patra

M.S. August 2004, Applied Geology (**University Gold Medal Recipient**)

Department of Geological Sciences, Jadavpur University, Kolkata, India.

Thesis Title: “Thermobarometric analysis of inverted Barrovian Sequence of Sikkim Himalaya”

Supervisor: Prof. Somnath Dasgupta

B.S. August 2002, Geology (Major)

Physics and Mathematics (Minor)

Department of Geological Sciences, Jadavpur University, Kolkata, India.

RESEARCH FOCUS, SKILLS AND EXPERTISE*

Focus:

† Broad Research Topic: **Synthesis and Applications of Functional Nanomaterials for Renewable Energy (Thermoelectric, Photovoltaic), Solid State Lighting (LED) and Memory (Ferroelectric) applications.**

Skills:

- † Extensive experience in the scalable synthesis of a wide variety of inorganic oxide, sulfide, telluride nanoscale materials using chemical techniques such as solvothermal (conventional and microwave), direct precipitation, colloidal synthesis using organic and inorganic processes, microemulsion processes and physical synthesis techniques such as physical and chemical vapor deposition.
- † Handling and self-operating a broad range of advanced analytical equipment such as XRD, SEM, TEM, AFM, EDS, UV-vis, PL spectrometry, Raman, FTIR, TCSPC.
- † Handling, self-operating and maintenance of various measurement equipment (both industrial and custom-made) for electrical and photo-electrical (I-V and photo I-V), optical, thermoelectric (thermal conductivity, Seebeck and resistivity), Hall, Ferroelectric, Magnetic and Sensing properties.
- † Prototype device design for small-scale Energy (Thermoelectric, Photovoltaic), Solid State Lighting (LED) and Memory (Ferroelectric) industrial applications.

*For detailed research areas please see my research webpage: <http://faculty.cas.usf.edu/datta/>

TEACHING AND RESEARCH SUPERVISING EXPERIENCE

I. Research Supervisors:

(Responsible for training experimental skills, designing experiments, analyzing and interpreting the research results)

Co-major professor of physics Graduate Student(s)

- Ms. Corisa Kons (expected graduation summer 2017)
- Mr. Gregory Salazar (APS Bridge student: expected graduation fall 2017)

Undergraduate Student(s)

- Research mentor for summer 2014 REU (NSF funded research program) student Mr. MacKenzie Boeing Smith (Wittenberg University).
- Summer 2014: “Directed undergraduate research (PHY 4910)” of Mr. Christopher Lifrieri (2nd year Physics major undergraduate student at USF).
- Summer 2013-Present: “Directed undergraduate research (PHY 4910)” of Ms. Corisa Kons (Physics major undergraduate student from 2011-2014 at USF).

II. Teaching:

Spring 2010-Present: Instructor of team taught course “**Advances in Pure and Applied Physics**” (PHY 6938)” for graduate and undergraduate students at USF Physics Department.

(The curriculum of this course is aimed to introduce the students to the field of modern scientific developments in all areas of materials physics/materials chemistry (both theory and experiment) through interactive presentations and assignments. I teach the ‘experimental nanomaterials science and their

applications' which is largely based on the advances of my own research work in energy and memory technologies)

GRANT WRITING EXPERIENCE

1. "Exploring Rapid Microwave Synthesis Process for Nanostructured Polar Noncentrosymmetric Oxides for Energy Efficient Memories", **Anuja Datta (PI)**, USF Internal Awards, 2015 (*submitted*)
2. "Structure-Property investigation of Pb-free Zn-based perovskite-type oxide nanostructures for ferroelectric memory and piezoelectric actuator applications", Pritish Mukherjee (PI), **Anuja Datta (co-PI)**, National Science Foundation (NSF)-Division of Civil, Mechanical and Manufacturing Innovation: Nanomanufacturing (NM), 2015. (*submitted*)
3. "Bottom-up fabrication of novel Pb-free ZnTiO₃ nanostructure arrays for next generation piezoelectric actuators", **Anuja Datta (PI)**, Pritish Mukherjee (co-PI), Samsung GRO 2014.
4. "Development of eco-friendly lead-free nanostructured ferroelectric thin films for next generation memory devices", **Anuja Datta (PI)**, USF Internal Awards, 2013.

PROFESSIONAL AFFILIATIONS AND REFEREE SERVICES

Membership

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| † American Chemical Society (ACS) <i>Valued Member</i> | † Indian Association for the Cultivation of Science Alumni, India |
| † American Physical Society (APS) | † Jadavpur University Alumni, India |
| † American Ceramic Society (ACerS) | |
| † Materials Research Society (MRS), USA | |

Manuscript Reviewer

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| † Applied Surface Science | † Nanoscale |
| † Intermetallics | † Journal of Materials Science |
| † Journal of Applied Physics | † Physica Status Solidi (A) |
| † Journal of Phys D: Applied Physics | † Thin Solid Films |
| † Journal of Colloid and Interface Science | † Vacuum |
| † Journal of Chemical Physics | † Science and Technology of Advanced Materials |
| † Journal of Solid State Chemistry | † Physica B |
| † Journal of Nanomaterials | † Materials Chemistry and Physics |
| † Journal of Electronic Materials | † MRS Symposium Proceedings |
| † Journal of Physical Chemistry | † Recent Patents in Materials Science |
| † Journal of American Chemical Society | † Science of Advanced Materials |
| † Materials Science and Engineering B | † ACS Applied Materials & Interfaces |
| † Nanotechnology | † Solid State Communications |
| † Journal of Alloys and Compounds | † Industrial and Engineering Chemical Research |

and several others

RESEARCH COLLABORATIONS

Prof. Pritish Mukherjee, Department of Physics, University of South Florida, USA
 Prof. Sarath Witanachchi, Department of Physics, University of South Florida, USA
 Prof. Garrett Matthews, Department of Physics, University of South Florida, USA
 Prof. Matthias Batzill, Department of Physics, University of South Florida, USA

Prof. Dr. Sanjay Mathur, Institute of Inorganic Chemistry, University of Cologne, Germany
Prof. Amitava Patra, Indian Association for the Cultivation of Science, India
Prof. Dilip S. Joag, Department of Physics, University of Pune, India
Prof. Mahendra M. More, Department of Physics, University of Pune, India

RESEARCH PUBLICATIONS (*h* index = 14; total number of citations > 540)

Peer-Reviewed Journal Articles

1. Devajyoti Mukherjee, **Anuja Datta**, Corisa Kons, Mahesh Hordagoda, Sarath Witanachchi and Pritish Mukherjee, "Intrinsic anomalous ferroelectricity in vertically-aligned LiNbO₃-type ZnSnO₃ hybrid nanoparticle-nanowire arrays" Applied Physics Letters 2014 (105) 212903
2. **Anuja Datta**, "Editorial: environmental friendly high performance ferroelectric materials from earth abundant elements" Austin Journal of Nanomedicine and Nanotechnology 2014 (2) 1-2
3. **Anuja Datta**, Corisa Kons, Devajyoti Mukherjee, Sarath Witanachchi and Pritish Mukherjee, "Evidence of superior ferroelectricity in aligned ZnSnO₃ nanowire arrays" Small 2014 (10) 4093
4. **Anuja Datta**, Devajyoti Mukherjee, Sarath Witanachchi and Pritish Mukherjee, "On-the-surface photoconductive response of pelletized thin In₂S₃ nanosheets" Materials Research Bulletin 2014 (55) 176
5. **Anuja Datta**, Devajyoti Mukherjee, Sarath Witanachchi and Pritish Mukherjee, "Hierarchically-ordered nano-heterostructured PZT thin films with enhanced ferroelectric properties" Advanced Functional Materials 2014 (24) 2638
6. **Anuja Datta**, Devajyoti Mukherjee, Mahesh Hordagoda, Sarath Witanachchi, Pritish Mukherjee, Ranjit V. Kashid, Mahendra A. More, Dilip S. Joag and Padmakar G. Chavan, "Controlled Ti seed layer assisted growth and field emission properties of Pb(Zr_{0.52}Ti_{0.48})O₃ nanowire arrays" ACS Applied Materials & Interfaces, 2013 (5) 6261
7. **Anuja Datta**, Godhuli Sinha, and Subhendu K. Panda, "Intrinsic growth of layered structure GaS microtubes from banana-leaf like structures" Journal of Crystal Growth, 2013 (368) 87
8. **Anuja Datta**, Devajyoti Mukherjee, Sarath Witanachchi and Pritish Mukherjee, "Low temperature synthesis, optical and photoconductance properties of nearly monodisperse thin In₂S₃ nanoplatelets" RSC Advances, 2013 (3) 141
9. **Anuja Datta** and George S. Nolas "Solution-based synthesis and low temperature transport properties of CsBi₄Te₆" ACS Applied Materials Interfaces 2012 (4) 772
10. **Anuja Datta** and George S. Nolas, "Synthesis and characterization of nanocrystalline FeSb₂ for thermoelectric applications" European Journal of Inorganic Chemistry 2012 (2012) 55
11. Godhuli Sinha, Subhendu K. Panda, **Anuja Datta**, Padmakar G. Chavan, Deodatta R. Shinde, Mahendra A. More, D.S. Joag and Amitava Patra, "Controlled growth of well-aligned GaS nanohorn structures and their field emission properties" ACS Applied Materials Interfaces 2011 (3) 2130
12. A. Popescu, **Anuja Datta**, G. S. Nolas and L. M. Woods, "Thermoelectric properties of Bi-doped PbTe composites" Journal of Applied Physics 2011 (109) 103709. *Highlighted in June 6, 2011 issue of Virtual Journal of Nanoscale Science & Technology.*

13. **Anuja Datta**, and George S Nolas, "Composition controlled synthesis of Bi rich $\text{Bi}_{1-x}\text{Sb}_x$ alloy nanocrystals by a low temperature polyol process" CrystEngCommunity 2011 (13) 2753
14. **Anuja Datta**, Paul, J., Kar, A., Patra, A., Sun, Z., Chen, L., Martin, J. and Nolas, G.S. "Facile chemical synthesis of nanocrystalline thermoelectric alloys based on Bi-Sb-Te-Se" Crystal Growth & Design 2010 (10) 3983
15. Arik Kar, **Anuja Datta** and Amitava Patra, "Fabrication and optical properties of core/shell CdS/LaPO_4 : Eu nanorods" Journal of Materials Chemistry 2010 (20) 916
16. **Anuja Datta** and Amitava Patra, "Bright white-light emission from In_2S_3 : Eu^{3+} nanoparticles" Journal of Physics D: Applied Physics 2009 (42) 145116
17. Godhuli Sinha, **Anuja Datta**, Subhendu K. Panda, Padmakar G. Chavan, Mahendra A. More, Dilip S. Joag and Amitava Patra, "Self-catalytic growth and field emission properties of Ga_2O_3 nanowires" Journal of Physics D: Applied Physics 2009 (42) 185409
18. **Anuja Datta**, Padmakar G. Chavan, Farid Jamali Sheini, Mahendra A. More, Dilip S. Joag and Amitava Patra, "Growth, optical, and field emission properties of aligned CdS nanowires" Crystal Growth & Design 2009 (9) 4157
19. **Anuja Datta**, Godhuli Sinha, Subhendu K. Panda and Amitava Patra, "Growth, optical and electrical properties of In_2S_3 zigzag nanowires" Crystal Growth & Design 2009 (9) 427
20. **Anuja Datta** and Subhadra Chaudhuri, "Phase transformation and optical properties of Cu doped wurtzite ZnS nanorods" Journal of Solid State Chemistry 2008 (181) 2332
21. Subhendu K. Panda, **Anuja Datta**, Godhuli Sinha, Subhadra Chaudhuri, Padmakar G. Chavan, Sandip S. Patil, Mahendra A. More and Dilip S. Joag, "Synthesis of well-crystalline GaS Nanobelts and their unique field emission behavior" Journal of Physical Chemistry C 2008 (112) 6240
22. **Anuja Datta**, Dibyendu Ganguli and Subhadra Chaudhuri, "Hydrothermal synthesis of Co doped In_2S_3 micropompons and their physical properties" Journal of Materials Research 2008 (23) 917
23. **Anuja Datta**, Soumitra Kar and Subhadra Chaudhuri, "Solvothelmal synthesis and properties of CdS:Mn nanorods". Journal of Nanoscience and Nanotechnology 2008 (8) 2049
24. **Anuja Datta**, Subhendu K. Panda, Soma Gorai, Dibyendu Ganguli and Subhadra Chaudhuri, "Room temperature synthesis of In_2S_3 micro- and nanorod textured thin films" Materials Research Bulletin 2008 (4) 983
25. **Anuja Datta**, Subhajit Biswas, Soumitra Kar and Subhadra Chaudhuri, "Multi color luminescence from the transition metal ion (Mn^{2+} and Cu^{2+}) doped ZnS nanoparticles by a solvothelmal approach" Journal of Nanoscience and Nanotechnology 2007 (7) 3670
26. **Anuja Datta**, Subhendu K Panda, Dibyendu Ganguli, Pratima Mishra and Subhadra Chaudhuri, " In_2S_3 micropompons and their conversion to In_2O_3 nanobipyramids: simple synthesis approaches and characterization" Crystal Growth & Design 2007 (7) 163
27. **Anuja Datta**, Soumitra Kar, Jay Ghatak and Subhadra Chaudhuri, "Solvothelmal synthesis of CdS nanorods: role of basic experimental parameters" Journal of Nanoscience and Nanotechnology 2007 (7) 677

28. **Anuja Datta**, Soma Gorai, Dibyendu Ganguli and Subhadra Chaudhuri, "Surfactant assisted synthesis of In_2S_3 dendrites and their characterization" Materials Chemistry and Physics 2007 (102) 195
29. Kajari Das, **Anuja Datta** and Subhadra Chaudhuri, "CuInS₂ nanoflower vase arrays on Cu tape by CISCuT method: Growth and characterization" Crystal Growth & Design 2007 (7) 1547
30. Subhendu K. Panda, **Anuja Datta** and Subhadra Chaudhuri, "Nearly monodispersed ZnS nanospheres: synthesis and optical properties" Chemical Physics Letters 2007 (440) 235
31. **Anuja Datta**, Subhendu K. Panda and Subhadra Chaudhuri, "Synthesis, optical and electrical properties of CdS/ZnS core/shell nanorods" Journal of Physical Chemistry C 2007 (111) 17260
32. **Anuja Datta**, Soma Gorai, Subhendu K. Panda, and Subhadra Chaudhuri, "A simple route to the synthesis of crystalline InS nanowires from indium foil" Crystal Growth & Design 2006 (6) 1010
33. Subhendu K. Panda, **Anuja Datta**, Soma Gorai, Apurba Dev and Subhadra Chaudhuri, "Surfactant assisted synthesis of SnS nanowires grown directly on tin foils" Crystal Growth & Design 2006 (6) 2177
34. **Anuja Datta**, Soma Gorai and Subhadra Chaudhuri, "Synthesis and characterization of sol-gel derived Mn^{2+} doped In_2S_3 nanocrystallites embedded in a silica matrix" Journal of Nanoparticle Research 2006 (8) 919
35. Soma Gorai, **Anuja Datta** and Subhadra Chaudhuri, "Solvothermal synthesis and characterization of InS" Materials Letters 2005 (59) 3050

Invited Book Chapters and Book

1. "Nanostructured Ferroelectrics" Anuja Datta, Devajyoti Mukherjee, Sarath Witanachchi and Pritish Mukherjee" in *Encyclopedia of Nanoscience and Nanotechnology*, Ed. H. S. Nalwa, American Sci. Publishers (in preparation).
2. "Synthesis, Growth and Properties of Sulfide Semiconductor Nanostructures" **Anuja Datta** and Amitava Patra, in *Encyclopedia of Semiconductor Nanotechnology*, Ed. A. Umar, American Sci. Publishers (in press).
3. "Nanostructuring in Anisotropic Low Temperature Thermoelectric Materials" **Anuja Datta** and George S. Nolas in *Thermoelectric Nanomaterials*, Eds. Kunihito Koumoto and Takao Mori, Springer Series in Materials Science, Springer, 2013.
4. "The Bottom-Up Approach To Bulk Thermoelectric Materials With Nano-Scale Domains" **Anuja Datta**, Adrian Popescu, Lilia Woods and George S. Nolas, in *CRC Handbook on Thermoelectrics and Its Energy Harvesting on Materials, Preparation and Characterization*, Taylor & Francis, Ed. David Michael Rowe, 2012.
5. "Tailoring of Properties of Sulfide Semiconductors in Nanoforms" by **Anuja Datta**, LAP LAMBERT Academic Publishing AG & Co., Germany 2010.

Published Papers in Conference Proceedings

1. "Facile Growth of Functional Perovskite Oxide Nanowire Arrays by Hybrid Physical-Chemical Techniques". Corisa Kons, and **Anuja Datta**, MRS Proceedings 1751, mrsf14-1751-1l13-07 (2015).

2. "Fabrication of Group IIIA Layered Sulfide Semiconductor Nanostructures by Physical Vapor Deposition Process and Their Enhanced Optical and Electronic Properties". **Anuja Datta**, P. Mukherjee, MRS Online Proceedings Library 1550, mrs13-1550-q03-19 (2013).
3. "Tailoring thermoelectric properties of bismuth: Theoretical investigations". L. M. Woods, A. Popescu, **Anuja Datta**, G. S. Nolas, AIP Conference Proceedings 1449, 45 (2012).
4. "Tailoring thermoelectric properties of Bismuth: theoretical investigations". A. Popescu, **Anuja Datta**, L.M. Woods, and G. S. Nolas, Proceedings of the 9th European Conference on Thermoelectrics (ECT 2011).
5. "Physical properties from Na₂₄Si₁₃₆ single crystals". M Beekman, W Schnelle, M Baitinger, H Borrmann, K Meier, **Anuja Datta**, Yu Grin, GS Nolas, Bulletin of the American Physical Society 55 (2010).
6. "Field emission studies on aligned CdS nanowires array" PG Chavan, FJ Sheini, MA More, DS Jaog, **Anuja Datta**, A Patra, Proceedings of the DAE solid state physics symposium. 54 (2009).
7. "Enhanced thermoelectric properties in PbTe Nanocomposites". Hillary Kirby, Joshua Martin, **Anuja Datta**, Lidong Chen and George S. Nolas, MRS Proceedings 2009 (1166) 1166-N03-27 (6 pages).

INVITED PRESENTATIONS

1. **Anuja Datta**, "Noncentrosymmetric Perovskite Oxide Nanostructures: Synthetic Strategies and Applications" **Colloquium Speaker:** Department of Physics, University of Central Michigan, USA, April 17, 2015.
2. Anuja Datta, "Design, Structure and Enhanced Ferroelectricity in Perovskite Oxide Nanostructures for Energy Efficient Memory and Photovoltaics" Materials Research Center-IIT-KGP, India.
3. **Anuja Datta**, "Perovskite Oxide Nanostructures with Enhanced Functionality for Energy and Non-volatile Memory Applications" Alumina and Other Functional Ceramics" (AOFC-2015) CSIR-CGCRI, Kolkata, India March 11-13, 2015.
4. **Anuja Datta**, "Hybrid Physical/Chemical Synthesis Strategies for Noncentrosymmetric Perovskite Oxide Nanostructures with Enhanced Functionality" Energy Materials Nanotechnology Ceramics (EMN/Ceramics) 2015 Meeting, Orlando, USA, January 26-29, 2015.
5. **Anuja Datta**, "Physical/Chemical Combinatorial Strategy Towards Multi-dimensional Perovskite Nano- and Micro-structures with Enhanced Functionality" 38th International Conference & Exposition on Advanced Ceramics & Composites, Daytona Beach, Florida, January 26-31, 2014.
6. **Anuja Datta**, Devajyoti Mukherjee, Sarath Witanachchi and Pritish Mukherjee, "Controlled seed-layer assisted growth of hierarchically-ordered Pb(Zr_{0.52}Ti_{0.48})O₃ nanostructure arrays with improved ferroelectric properties" 38th International Conference & Exposition on Advanced Ceramics & Composites, Daytona Beach, Florida, January 26-31, 2014.
7. **Anuja Datta**, "Synthesis-Property Relationships in Functional Nanostructures" Department of Physics, IIT-Hyderabad, India, 28th November, 2013.

8. **Anuja Datta**, “Strategic Synthesis and Properties of Functional Nanostructures for Optoelectronic, Thermoelectric and Memory Applications” Department of Metallurgical Engineering & Materials Science (MEMS), IIT-Mumbai, India, 25th November, 2013.
9. **Anuja Datta**, Florida Cluster for Advanced Smart Sensor Technologies (FCASST) Faculty Search, Department of Physics, University of South Florida, August 9, 2011.
10. **Anuja Datta**, Lilia Woods and George S. Nolas, “Bottom-Up Strategy for Thermoelectric Nanocomposites”, Thermoelectric Materials for Power Generation and Cooling, the American Physical Society (APS) Annual Meeting, Dallas, Texas, March 22, 2011.

OTHER CONFERENCE PRESENTATIONS (As presenter: marked with *)

1. **Anuja Datta***, Devajyoti Mukherjee, Corisa Kons, Sarath Witanachchi, and Pritish Mukherjee “Ferroelectricity in Strategically Synthesized Pb-free LiNbO₃-type ZnSnO₃ Nanostructure Arrayed Thick Films” 2014 MRS Fall Meeting & Exhibit, Boston, MA, November 30 - December 5, 2014.
2. Corisa Kons and **Anuja Datta***, “Facile growth of functional perovskite oxide nanowire arrays by hybrid physical-chemical techniques” 2014 MRS Fall Meeting & Exhibit, Boston, MA, November 30 - December 5, 2014.
3. Mahesh Hordagoda, Corisa Kons, Devajyoti Mukherjee, **Anuja Datta**, Sarath Witanachchi, and Pritish Mukherjee, “Evidence of polarization switching in LiNbO₃-type ZnSnO₃/ZnO nanocomposite thin films” 2014 MRS Fall Meeting & Exhibit, Boston, MA, November 30 - December 5, 2014.
4. Corisa Kons, **Anuja Datta***, Devajyoti Mukherjee, and Pritish Mukherjee “Band Engineering in ZnSnO₃ Nanorods by Doping and Core-Shell Approach for Solar Cell Applications” 2014 MRS Fall Meeting & Exhibit, Boston, MA, November 30 - December 5, 2014.
5. Corisa Kons, **Anuja Datta**, Devajyoti Mukherjee, and Pritish Mukherjee, “Band Gap Modification in ZnSnO₃ by Cation Doping and Core-Shell Approach for Solar Cell Applications” NanoFlorida 2014 - The 7th Annual Nanoscience Technology Symposium Sept. 25-26, Miami, FL, USA, 2014.
6. Boeing Smith, Corisa Kons, and **Anuja Datta**, “Band Energy Modification of Ferroelectric ZnSnO₃ for Photovoltaic Applications” REU-RET Poster Symposium, University of South Florida, July 31, Tampa, FL, USA, 2014.
7. Corisa Kons and **Anuja Datta** “Seed-Assisted Synthesis and Characterization of Ferroelectric ZnSnO₃ Nanostructures” Florida Annual Meeting and Exposition (FAME) by the Florida Section of the American Chemical Society, Innisbrook, Florida, May 8 – 10, 2014.
8. Corisa Kons and **Anuja Datta**, “Growth and Characterization of Eco-friendly Lead-Free Ferroelectric ZnSnO₃ Nanostructures” 38th International Conference & Exposition on Advanced Ceramics & Composites, Daytona Beach, Florida, January 26-31, 2014.
9. Corisa Kons and **Anuja Datta**, “Synthesis and properties of ZnSnO₃ Nanostructures” American Physical Society (APS) Conferences for Undergraduate Women in Physics (CUWiP), Florida State University, Jan. 17-19, 2014, Tallahassee.

10. **Anuja Datta*** and Pritish Mukherjee “Fabrication of Group IIIA Layered Sulfide Semiconductor Nanostructures by Physical Vapor Deposition Process and Their Enhanced Optical and Electronic Properties” MRS Spring Meeting, April 02, 2013, San Francisco.
11. **Anuja Datta***, Devajyoti Mukherjee, Sarath Witanachchi and Pritish Mukherjee. “Facile Low Temperature Synthesis of Nearly Monodisperse Thin In_2S_3 Nanoplatelets and Their Optical and Photoconductance Properties” MRS Spring Meeting, April 05, 2013, San Francisco.
12. Devajyoti Mukherjee, **Anuja Datta**, Sarath Witanachchi and Pritish Mukherjee. “Growth of Low-dimensional $\text{Pb}(\text{Zr}_x\text{Ti}_{1-x})\text{O}_3$ Nanostructures by Combined Physical and Wet-chemical Synthesis Approaches with Enhanced Electronic Properties” MRS Spring Meeting, April 05, 2013, San Francisco.
13. **Anuja Datta*** and Pritish Mukherjee, “Optoelectronic Properties of Ultrathin Monodisperse In_2S_3 Nanoplatelets Synthesized by Low Temperature Polyol Process.” USA’ International Conference on Surfaces, Coatings and Nanostructured Materials (NANOSMAT-USA), Tampa, Florida, 27-30 March 2012.
14. **Anuja Datta***, M. Hordagoda, D. Mukherjee, S. Witanachchi, P. Mukherjee, “Growth of One-Dimensional $\text{Pb}(\text{Zr}_x\text{Ti}_{1-x})\text{O}_3$ Nanostructures by Combined Physical and Wet-Chemical Synthesis Approaches for Enhanced Ferroelectric Properties” Poster presentation at the USA’ International Conference on Surfaces, Coatings and Nanostructured Materials (NANOSMAT-USA), Tampa, Florida, 27-30 March 2012.
15. **Anuja Datta***, Kaya Wei, Adrian Popescu, Lilia Woods, and George S. Nolas “Processing Dependence on the Thermoelectric Properties of Nanostructured Thermoelectric Materials”. MRS Fall Meeting, Boston, Massachusetts, Nov. 28 - Dec. 02, 2011.
16. Adrian Popescu, **Anuja Datta**, George S. Nolas and Lilia Woods, “Tailoring Thermoelectric Properties of Bismuth: Theoretical Investigations” 9th European Conference on Thermoelectrics, Thessaloniki, Greece, September 29, 2011.
17. George S Nolas, **Anuja Datta**, Jagannath Paul, Adrian Popescu, and Lilia Woods “Bottom-Up Approach for the Synthesis of Thermoelectric Materials with Nano-Scale Domains” 35th International Conference and Exposition on Advanced Cermics and Composites, Daytona Beach, Florida, January 27, 2011.
18. **Anuja Datta***, Jagannath Paul, Adrian Popescu, Lilia Woods, and George S Nolas, “Bottom-Up Strategy Towards Thermoelectric Materials With Nano-Scale Domains”. MRS Fall Meeting, Boston, Massachusetts, Nov. 30- Dec. 03, 2010.
19. **Anuja Datta***, Jagannath Paul and George S. Nolas “Solution Phase Synthesis Routes In Preparing Chalcogenide Nanocomposites With Enhanced Thermoelectric Properties” The 86th American Chemical Society Florida Annual Meeting and Exposition, Innisbrook, Florida, May 13-15, 2010.
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