Anjani Kumar Maurya

Curriculum Vitae

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Research and Work Experiences

May 2021- Present **Postdoctoral Research Fellow**, *SLAC National Accelerator Laboratory, Stanford University, California, USA; Supervisor: Dr. Christopher J. Tassone*

- Mechanistic interrogation of catalysts and bio-catalysts on solid polymer interfaces for deconstruction by developing novel in-situ and operando X-ray scattering, spectroscopy, and microscopy methods at reaction conditions

Mar 2017- Feb 2021 **PhD thesis**, *Empa, Swiss Federal Laboratories for Materials Science and Technology (ETH domain Lab), Switzerland; Supervisors: Prof. Alex Dommann & Prof. Martin Frenz*

- Expert in modern X-ray scattering experiments in lab as well as large-scale facilities (synchrotron sources)
- Experience in performing and designing in-situ experiments for structural characterizations (SAXS/WAXS) coupled with microfluidics, tensile, thermal, electrical, or humidity setup
- Computing and Image analysis

Nov 2015- Feb 2017 **Material Simulation Engineer - Part Time**, *Package simulation team, Infineon Technologies AG, Neubiberg, Germany; Supervisor: Dr. Martin Niessner*

- Developed tools in MATLAB and Python to analyze measured data and compare results from experiments and simulation
- Developed material models using the finite element method (FEM) simulation tools like COMSOL Multiphysics and Ansys
- Created materials database for package simulation team

Oct 2015- Nov 2016 **Master Thesis Project**, *Technical University of Munich (TUM), Germany; Supervisor: Prof. Peter Müller Buschbaum*

Thesis title: "Optimization of the thermoelectric properties of conducting polymer thin films by dedoping and hybrid approaches"

- Fabricated conducting polymer thin films and enhanced their thermoelectric characteristics through a comprehensive analysis of their structure-property correlation.

May 2015- Aug 2015 **Summer Internship**, *Quantum Optoelectronic Group, Laboratoire Kastler Brossel-UPMC-ENS, Paris, France; Supervisors: Prof. Quentin Glorieux & Prof. Alberto Bramati*

Internship title: "Hybrid apparatus: Optical microfiber knot/loop resonator"

- Fabricated a microfiber knot/loop resonator specifically designed for quantum dot coupling, enabling the investigation of light-matter interactions.

Jan 2014- May 2014 **B.Tech Thesis Project**, *Semiconductor group, Department of Physics, Indian Institute of Technology Guwahati, India; Supervisor: Prof. Pratima Agarwal*

Thesis title: "Fabrication and characterization of silicon ultra-thin film prepared by Hot Wire Chemical Vapor Deposition (HWCVD) technique"

- Fabricated ultra-thin semiconducting films of silicon via Hot Wire Chemical Vapor Deposition (HWCVD) and Plasma Enhanced Chemical Vapor Deposition (PECVD) techniques and conducted extensive electrical, optical, and structural characterizations to study

May 2013- Dec 2013 **Research Project**, *Semiconductor Group, Department of Physics, Indian Institute of Technology Guwahati, India; Supervisor: Prof. Pratima Agarwal*
Project title: "Band gap variation in bilayer graphene and silicene under transverse electric field"

- Utilized Density Functional Theory (DFT) to demonstrate the superior band gap tunability of silicene compared to graphene, indicating its potential for room-temperature field-effect transistors (FETs)

Jan 2013- May 2013 **Research Project**, *Magnetism group, Department of Physics, Indian Institute of Technology Guwahati, India; Supervisor: Prof. D. Pamu*
Project title: "Fabrication of $K_{0.05}Na_{0.05}NbO_3$ (KNN) ferroelectric thin film capacitor by RF magnetron sputtering"

- Synthesized KNN and deposited dual capacitor layers using RF magnetron sputtering for lead (Pb) free ferroelectric and piezoelectric devices

May 2011- Jul 2011 **Research Project**, *Semiconductor group, Department of Physics, Indian Institute of Technology Guwahati India; Supervisor: Prof. Pratima Agarwal*
Project title: "Structural and transport studies of ZnS thin film for photovoltaic applications".

- Synthesized ZnS nanoparticles of various sizes via solvothermal processing and fabricated thin films optimized for photovoltaic applications

Education

Jun 2023 - Jul 2023 **Stanford Ignite – Full-Time**
- Stanford University Graduate School of Business, Stanford University, USA

*E*xposed to core business skills such as marketing, operations, strategy, accounting, finance, and economics, and applied skills such as design thinking, teamwork, public speaking, leadership, and pitching. Worked in a team to develop a plan for commercializing a new product for a new venture.

Mar 2017- Feb 2021 **PhD in Biomedical Engineering**, *Summa Cum Laude*
- Empa, Swiss Federal Laboratories for Materials Science and Technology (ETH domain Lab), Switzerland
- ARTORG Center for Biomedical Engineering Research, University of Bern, Switzerland

Thesis title: "Multiscale structural decoding of fibers and designing responsive nanofibrous materials"
Supervisors: Prof. Alex Dommann & Prof. Martin Frenz; *Co-advisor:* Prof. Antonia Neels

Oct 2015- Nov 2016 **MSc. (M2): Applied and Engineering Physics, Erasmus Mundus Master's Program in Material Science Exploring Large Scale Facilities (MaMaSELF)**
- Technical University of Munich (TUM), Germany

Thesis title: "Optimization of the thermoelectric properties of conducting polymer thin films by dedoping and hybrid approaches"
Supervisor: Prof. Peter Müller Buschbaum

Sep 2014- Aug 2015 **MSc. (M1): Physics, Erasmus Mundus Master's Program in Material Science Exploring Large Scale Facilities (MaMaSELF)**
- University of Rennes 1, France
  Mentor: Prof. Sergio Di Matteo

Jul 2010- Jun 2014 **Bachelor of Technology (B.Tech) in Engineering Physics**
- Indian Institute of Technology Guwahati (IITG), India

Thesis title: "Fabrication and characterization of silicon ultra-thin film prepared by Hot Wire Chemical Vapor Deposition (HWCVD) technique"
Supervisor: Prof. Pratima Agarwal

Publications and Conferences

The list of peer-reviewed publications and conferences are attached at the end of this CV [See here], Google Scholar, and ResearchGate.

Awards and Honors

July-2022	Young Scientist Award to attend SAS2022 international conference
May-2020	IUCr Young Scientist Award
Sept-2018	Best poster presentation award at EXCITE Biomedical Imaging Summer School, ETH Zurich, Switzerland
2015-2016	Erasmus+ Scholarship by the European Union
2014-2015	World Quantitative and Science Scholarship by World Quant Foundation
2012-2014	IIT Guwahati Institute Merit-cum-Means (McM) Scholarship by Government of India
2010	Ranked among the top 0.1% out of about 1 million candidates in the Indian Institute of Technology Joint Entrance Examination (IIT-JEE 2010)

Skills

Computer Skills

Programming Language: Matlab, Python, C
OS: Windows, Linux, Mac OS
Software Tools: Ansys, Fusion 360, TOPAS, GSAS-II, ATSAS, NIKA, FIT2D, GIXGUI, DPDAK

Experimental Skills

Synthesis: Fiber fabrication techniques such as electrospinning and melt-spinning, microfluidics synthesis of nanoparticles, spin coating, 3D-printing, thin film deposition techniques such as Hot wire chemical vapor deposition, evaporation
Materials Characterisation: SEM, FIB-SEM, Cryo-TEM, Optical Microscopy, SAXS, XRD, Mechanical, Electrical and Optical characterizations
Simulation: Finite Element Simulation, Density Functional Theory (DFT)

Organizational/Managerial Skills

- Managing an interdisciplinary BOTTLE project
- Collaborative research work with various research groups across the world
- Volunteer for 1st Bio-X Conference, St. Gallen, Switzerland, May 2018
- Volunteer for 5th International Conference on Solar Technology (SolTech), Munich, Germany, April 2016
- City representative for TECHNOTHLON (Technothlon is an international school championship organized by the students of IIT Guwahati), India, 2011
- Volunteer for 2nd International Conference on Advance Nanomaterials and Nanotechnology (ICANN), India, 2011

Languages

Hindi (native), English (native), German (A2), French (A2)

Teaching, Supervision and Support

- Taught "Applied biomaterials" course to master students of Biomedical Engineering from the University of Bern with Prof. Alex Dommann
- Supervised master's thesis of Ms. Eloise Mias, University of Rennes1 and MaMaSELF
- Assisted Prof. Alex Dommann in conducting exams and coursework at the University of Bern
- maintained, trained, and supported users for lab based SAXS/WAXS instruments (Molmet and Nanostar)
- Designed and installed various *in-situ* experimental setups such as tensile, heating, microfluidics, and humidity coupled with SAXS/WAXS instrument for users

Relevant Courses and Summer Schools

Autum semester 2018 **Micro/Nanotechnology and Microfluidics for Biomedical Applications**, ETH Zurich, Switzerland
Topics: Micro/nanotechnology and microfluidics in the life sciences: Transistors for DNA sequencing, beamers for patterning proteins, hard-disk technology for biosensing and scanning microfluidics for analyzing tissue sections

03^{th} - 14^{th} Sept 2018 **EXCITE Biomedical Imaging Summer School**, ETH Zurich, Switzerland
Topics: Recent advances and current challenges in biological and medical imaging with a focus on multimodal and multiscale imaging methods: magnetic resonance imaging (MRI), positron emission tomography (PET), infrared and optical microscopy, electron microscopy and X-ray imaging together with supporting technologies such as computer-aided image analysis and modeling

7^{th} - 18^{th} Sept 2015 **Summer School on Large Scale Facilities**, University of Montpellier, France
Topics: Crystallography, X-ray diffraction including HRXRD, synchrotron sources, physics with neutron, Brag reflection to diffuse scattering, X-ray absorption spectroscopy, X-ray free-electron laser, diffraction from magnetic source

Memberships

2019-present Member of Swiss Crystallography Society
2017-present Member of Swiss Chemical Society
2015-2018 Member of German Physical Society (DPG)

References

Dr. Christopher J. Tassone
Materials Science Division Director
Stanford Synchrotron Radiation Lightsource
SLAC National Accelerator Laboratory
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Menlo Park, CA 94025, USA
Phone: +1 (650) 926-3124
E-mail: tassone@slac.stanford.edu

Prof. Dr. Alex Dommann
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Empa, Swiss Federal Laboratories for Materials Science and Technology
St. Gallen, Switzerland
Phone: +41 58 765 7401
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Prof. Dr. Antonia Neels
Head of the "Center for X-ray Analytics"
Empa, Swiss Federal Laboratories for Materials Science and Technology
Dubendorf, Switzerland
Phone: +41 58 765 4507
E-mail: antonia.neels@empa.ch

Prof. Dr. Martin Frenz
Director of "Institute of Applied Physics"
University of Bern
Bern, Switzerland
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Publications

21. Jessica Lusty Beech, **Anjani K. Maurya**, Ronivaldo da Silva, Emmanuel Akpoto, Arun Asundi, Julia Ann Fecko, Neela Yennawar, Ritimukta Sarangi, Thomas Weiss, Christopher Tassone, Jennifer L. DuBois; "Understanding the stability constraints on a plastic-deconstructing Rieske iron oxidoreductase system" *(in-preparation).*

20. Amy A. Cuthbertson, Clarissa L. Lincoln, Joel Miscall, Lisa M. Stanley, David Moore, **Anjani K. Maurya**, Arun S. Asundi, Christopher J. Tassone, Nicholas A. Rorrer, Gregg T. Beckham, "Characterization of polymer properties and identification of additives in commercially available research plastics" *(in-preparation).*

19. **Anjani K. Maurya**, Arun S. Asundi, Amani M. Ebrahim, Kevin P. Sullivan, Joel Miscall, Gregg T. Beckham, Christopher J. Tassone; "Unveiling the Role of Solvent and Catalyst in Plastic Autoxidation Deconstruction using X-Ray Scattering Techniques" *(in-preparation).*

18. Arun S. Asundi, Amani M. Ebrahim, **Anjani K. Maurya**, Chad T. Palumbo, Kevin P. Sullivan, Gregg T. Beckham, Ritimukta Sarangi; "Effect of Ligand Chemistry on Electronic Properties and Reactivity of Cobalt Acetate Autoxidation Catalysts" *The Journal of Physical Chemistry C*, 127 (32), 15797-15808, (2023) DOI:10.1021/acs.jpcc.3c03216

17. Makenna L. Pennel, **Anjani K. Maurya**, Amani M. Ebrahim, Christopher J. Tassone, Matteo Cargnello; "Intrinsic activity of silica-alumina for the conversion of polyethylene into tunable aromatics below pyrolytic temperatures," *ACS Sustainable Chemistry & Engineering*, 11 (34), 12623-12630, (2023) DOI: 10.1021/acssuschemeng.3c02295

16. Fernando Vazquez Luna, **Anjani K. Maurya**, Juliana Martins de Souza e Silva, Guido Dittrich, Theresa Paul, Dirk Enke, Patrick Huber, Ralf Wehrspohn, and Martin Steinhart; "Straight versus Spongy: Effect of Tortuosity on Polymer Imbibition into Nanoporous Matrices Assessed by Segmentation-Free Analysis of 3D Sample Reconstructions" *The Journal of Physical Chemistry C*, 126 (30), 12765-12779, (2022) DOI:10.1021/acs.jpcc.2c01991

15. Deeptanshu Sivaraman, Gilberto Siqueira, **Anjani K. Maurya**, Shanyu Zhao, Matthias M. Koebel, Gustav Nyström, Marco Lattuada, Wim J. Malfait; "Superinsulating nanocellulose aerogels: Effect of density and nanofiber alignment" *Carbohydrate Polymers*, Volume 292, 119675, ISSN 0144-8617, (2022) DOI:10.1016/j.carbpol.2022.119675

14. J. Schoeller, J. T. Avaro, **Anjani K. Maurya**, R. M. Rossi, A. Neels; "Tailoring Fibre Structure Enabled by X-ray Analytics for Targeted Biomedical Applications"; *Chimia* 2022, 76, 229 (2022) DOI:10.2533/chimia.2022.229

13. Robin M. Cywar, Nicholas A. Rorrer, Heather B. Mayes, **Anjani K. Maurya**, Christopher J. Tassone, Gregg T. Beckham, and Eugene Y.-X. Chen ; "Redesigned Hybrid Nylons with Optical Clarity and Chemical Recyclability"; *Journal of American Chemical Society*, 144, 12, 5366–5376, (2022) DOI:10.1021/jacs.1c12611

12. Iranpour, N., Liebi, M., Ong, Q., Blanchet, C., **Anjani K. Maurya**, Stellacci, F., Salentinig, S., Wick, P., Neels, A., "In-situ Investigations on Gold Nanoparticles Stabilization Mechanisms in Biological Environments Containing HSA"; *Advanced Functional Materials*, 32, 2110253, (2022) DOI:10.1002/adfm.202110253

11. **Anjani K. Maurya**, Eloise Miase, Jean Scholler, Giuseppino Fortunato, René M. Rossi, Alex Dommann, Antonia Neels*; "Multiscale structural decoding of electrospun fibers: from fabrication to possibilities for steering properties"; *Nanoscale Advances*, 4, 491-501, (2022) DOI:10.1039/D1NA00503K

10. Inès Richard, **Anjani K. Maurya**, Shahrzad Shadman, Eloïse Masquelier, Lison Sylou Marthey, Antonia Neels and Fabien Sorin: "Unraveling the influence of polymer chain orientation on the thermo-mechanical properties of thermally drawn fibers", *Small*, 18, 2101392 (2022) DOI:10.1002/smll.202101392

9. **Anjani K. Maurya**, Annapaola Parrilli, Tatiana Kochetkova, Jakob Schwiedrzik, Alex Dommann, Antonia Neels*; "Multiscale and multimodal X-ray analysis: Quantifying phase orientation and morphology of mineralized turkey leg tendons", *Acta Biomaterialia*, Volume 129, Pages 169-177, ISSN 1742-7061, (2021) DOI:10.1016/j.actbio.2021.05.022

8. **Anjani K. Maurya**, Sumit Mondal, Dean E. Wheeldon, Jean Scholler, Michel Schmid, Simon Annaheim, Martin Camenzind, Giuseppino Fortunato, Alex Dommann, Antonia Neels, Amin Sadeghpour, René M. Rossi; "Effect of radiant heat exposure on structure and mechanical properties of thermal protective fabrics"; *Polymer*, Volume 222, 123634, ISSN 0032-3861, (2021) DOI:10.1016/j.polymer.2021.123634

7. Dambarudhar Parida, Khalifah Salmeia, Amin Sadeghpour, Shanyu Zhao, **Anjani K. Maurya**, Eva Moreau, Robin Pauer, Sandro Lehner, Milijana Jovic, Sabyasachi Gaan; "Template free synthesis of hybrid mesoporous silica nanoparticle with phosphonic acid functionality for efficient methylene blue removal"; *Materials and design*, Volume 201, 109494, ISSN 0264-1275, (2021) DOI:10.1016/j.matdes.2021.109494

6. Ivana Malagurski, Ruggero Frison, **Anjani K. Maurya**, Antonia Neels, Boban Andjelkovic, Ramsankar Senthamaraikannan, Ramesh Babu padamati, kevin O Connor, Tomasz Witko, Daria Solarz, Jasmina Nikodinovic-Runic*; "Polyhydroxyoctanoate Films Reinforced with Titanium Dioxide Microfibers for Biomedical Application"; *Materials Letters*, Volume 285, 15 February, 129100 (2020) DOI:10.1016/j.matlet.2020.129100

5. Tatiana Kochetkova*, Cinzia Peruzzia Oliver Braun, Jan Overbeck, **Anjani K. Maurya**, Antonia Neels, Michel Calame, Johann Michler, Philippe Zysset, Jakob Schwiedrzik*; "Combining polarized Raman spectroscopy and micropillar compression to study microscale structure-property relationships in mineralized tissues", *Acta Biomaterialia*, issn 1742-7061 (2020), DOI:10.1016/j.actbio.2020.10.034

4. Tien N. D., **Anjani K. Maurya**, G. Fortunato, M. Rottmar, R. Zboray, R. Erni, A. Dommann, R. M. Rossi, A. Neels, A. Sadeghpour *; "Responsive Nanofibers with Embedded Hierarchical Lipid Self-Assemblies", *Langmuir*, 36, 40, 11787–11797 (2020), DOI:10.1021/acs.langmuir.0c01487

3. Arushi Jain, **Anjani K. Maurya**, Leonie Ulrich, Michael Jaeger, René M. Rossi, Antonia Neels, Philippe Schucht, Alex Dommann, Martin Frenz, and H. Günhan Akarçay, "Polarimetric imaging in backscattering for the structural characterization of strongly scattering birefringent fibrous media", *Opt. Express* 28, 16673-16695 (2020), DOI: 10.1364/OE.390303

2. **Anjani K. Maurya**, Lukas Weidenbacher, Fabrizio. Spano, Giuseppino Fortunato, René M. Rossi, Martin Frenz, Alex Dommann, Antonia Neels*, Amin Sadeghpour*; "Structural insights into semicrystalline states of electrospun nanofibers: a multiscale analytical approach" *Nanoscale* 11, 7176-7187 (2019), DOI:10.1039/C9NR00446G

1. Nitin Saxena, Josef Keilhofer, **Anjani K. Maurya**, Giuseppino Fortunato, Jan Overbeck, Peter Müller-Buschbaum*; "Facile Optimization of Thermoelectric Properties in PEDOT: PSS Thin Films through Acido-Base and Redox Dedoping Using Readily Available Salts"; *ACS Appl. Energy Mater.* 1, 2, 336-342 (2018), DOI: 10.1021/acsaem.7b00334

Conference proceedings

5. **Anjani K. Maurya**, Dommann, A. Neels; "Multiscale structural decoding of fibrous materials by SAXS and WAXD", Acta Cryst. (2021). A77, C571 DOI: 10.1107/S0108767321091236

4. **Anjani K. Maurya**, L. Weidenbacher, F. Spano, G. Fortunato, R. M. Rossi, M. Frenz, A. Dommann, A. Sadeghpour and A. Neels; "Multiscale structural decoding of electrospun nanofibres: from processing to possibilities for steering functionality", Acta Cryst. (2019). A75, e647 DOI: 10.1107/S2053273319089095

3. Amin Sadeghpour, Tien N. D., **Anjani K. Maurya**, G. Fortunato, A. Dommann, R. M. Rossi and A. Neels; "Hierarchical design of lipid–polymer composite nanofibres: the interplay of multiscale structures and biofunctions". Acta Cryst. (2019). A75, e587. DOI: 10.1107/S2053273319089691

2. Malagurski, R. Frison, **Anjani K. Maurya**, J. Nikodinovic-Runic, R. Babu, K.E. O'Connor, A. Neels; "Medium chain length (mcl)-PHA-based nanocomposites for biomedical applications: system evaluation through XRD", Acta Cryst. (2019). A75, e577. DOI: 10.1107/S2053273319089794

1. Arushi Jain, **Anjani K. Maurya**, Alex Dommann, Antonia Neels, Martin Frenz, and H. Günhan Akarçay "Polarimetric imaging of the light backscattered from multiply scattering nanofibrous PVDFhfp scaffolds", Proc. SPIE 10890, Label-free Biomedical Imaging and Sensing (LBIS) 2019, 108900E (13 March 2019); DOI: 10.1117/12.2507399

Conference Presentations

24. **Anjani K. Maurya**, Arun S. Asundi, Ozge D. Bozkurt, Sarah A. Hesse, Christopher J. Takacs, Ravikumar Ramegowda, Jeremy Luterbacher, Chen Eugene, Gregg Beckham, Christopher J. Tassone; "In-Situ Synchrotron-Based Characterization of Soft Materials Properties and Behavior"; September 2023, Bay-area soft matter symposium, Stanford, USA

23. **Anjani K. Maurya**, Arun S. Asundi, Sarah A. Hesse, Amani M. Ebrahim, Kevin P. Sullivan, Chad T. Palumbo,

Allison Z. Werner, Christopher J. Takacs, Gregg T Beckham, Ritimukta Sarangi, Christopher J. Tassone; " Decoding the mechanism of autoxidation deconstruction reaction of plastics by in-situ simultaneous SAXS and WAXS"; September 2022, SAS2022 International Conference, Campinas, Brazil. (Talk)

22. **Anjani K. Maurya**, René M. Rossi, Alex Dommann, Antonia Neels*; "Unraveling the multiscale structure of fibrous materials by X-ray scattering techniques"; May-June 2022, European Powder Diffraction Conference, EPDIC17, Šibenik, Croatia

21. **Anjani K. Maurya** Eloïse Mias, Jean Schoeller, René M. Rossi, Martin Frenz, Alex Dommann, Antonia Neels; "Multiscale structural decoding of electrospun fibers: from processing to possibilities for steering properties"; 30 November 2020; Empa PhD symposium 2020, Empa, St. Gallen, Switzerland

20. **Anjani K. Maurya**, Amin Sadeghpour, Ruggero Frison, Riccardo Malini Innocenti, Claudio Toncelli, Marc G. Willinger, René M. Rossi, Martin Frenz, Alex Dommann, Antonia Neels*; "Nucleation and growth study of Iron oxide nanoparticles from Solution for biomedical application"; Poster presentation delivered at GCB Symposium 2020, January 2020, University of Bern, Switzerland

19. **Anjani K. Maurya**, Amin Sadeghpour, Ruggero Frison, Riccardo Innocenti Malini, Claudio Toncelli, Marc G. Willinger, René M. Rossi, Martin Frenz, Alex Dommann, Antonia Neels; "Nucleation and growth study of Iron oxide nanoparticles from Solution". Poster presentation delivered at Empa PhD symposium, Switzerland, November 2019

18. Sadeghpour, N. D. Tien, **Anjani K. Maurya**, G. Fortunato, A. Dommann, R. M. Rossi, A. Neels; "Structure and Dynamics in the Newly Designed Polymer Nanofibers with Embedded Lipid Mesophases". Oral presentation delivered at SAXS Excites 2019, University of Graz, Austria. 2019

17. N. D. Tien, **Anjani K. Maurya**, Z. Robert, Giuseppino Fortunato, M. Rottmar, Giuseppino Fortunato, René M. Rossi, Martin Frenz, Alex Dommann, Antonia Neels,and Amin Sadeghpour; "Electrospun nanofobers with embedded bioinspired membranes". Poster presentation at Bioinspired materials, Monte Verità October 2019

16. **Anjani K. Maurya**, Lukas Weidenbacher, Fabrizio Spano, Giuseppino Fortunato, René M. Rossi, Martin Frenz, Alex Dommann, Amin Sadeghpour, and Antonia Neels; "understanding fiber fabrication process by structural feedbacks by SAXS and WAXD" Poster presentation at European Crystallography meeting, , University of Vienna, 21-22. August. 2019

15. **Anjani K. Maurya**, Lukas Weidenbacher, Fabrizio Spano, Giuseppino Fortunato, René M. Rossi, Martin Frenz, Alex Dommann, Amin Sadeghpour, and Antonia Neels; "Decoding structural insights of nanofibers by SAXS and WAXD". Oral presentation delivered at Swiss Crystallography meeting, EPFL Sion Switzerland, August 2019

14. **Anjani K. Maurya**, A. Sadeghpour, L. Weidenbacher, F. Spano, G. Fortunato, R. M. Rossi, M. Frenz, A. Dommann and A. Neels. "Decoding structural Insights into semicrystalline states of polymeric nanofibers at nanoscale". Poster presentation delivered at Empa PhD symposium November 2018

13. **Anjani K. Maurya**, A. Sadeghpour, L. Weidenbacher, F. Spano, G. Fortunato, R. M. Rossi, M. Frenz, A. Dommann and A. Neels. "Structural-morphological correlation studies in polymeric nanofibers by SAXS and WAXD". Poster presentation delivered at Polycoll 2018, EPFL, Switzerland October 2018

12. **Anjani K. Maurya**, A. Sadeghpour, L. Weidenbacher, F. Spano, G. Fortunato, R. M. Rossi, M. Frenz, A. Dommann and A. Neels. "Study the effect of nanofiber fabrication processes into the modification of internal structure at nanoscale", Poster presentation delivered at Swiss Crystallography meeting-2018, PSI, Switzerland September 2018

11. **Anjani K. Maurya**, A. Sadeghpour, L. Weidenbacher, F. Spano, G. Fortunato, R. M. Rossi, M. Frenz, A. Dommann and A. Neels. "Structural Insights into Semicrystalline States of Electrospun Nanofibers" September 2018.Poster presentation delivered at EXCITE Biomedical Imaging Summer School 2018, ETH Zurich, Switzerland. (Best Poster Award)

10. **Anjani K. Maurya**, A. Sadeghpour, L. Weidenbacher, F. Spano, G. Fortunato, R. M. Rossi, M. Frenz, A. Dommann and A. Neels. "Structure-morphology correlation studies of electrospun nanofibers by SAXS and WAXS" Poster presentation delivered at Bio-X, Empa St. Gallen, Switzerland, March 2018

9. **Anjani K. Maurya**, A. Sadeghpour, L. Weidenbacher, F. Spano, G. Fortunato, R. M. Rossi, M. Frenz, A. Dommann and A. Neels. "Structural in-situ studies for particle system synthesis and their early event dynamics in bio environments". Oral presentation, Empa PhD seminar, Empa St. Gallen, Switzerland, January 2018

8. **Anjani K. Maurya**, A. Sadeghpour, R. Rossi, A. Dommann, A. Neels. "Structure-morphology correlation studies in electrospun nanofibers by SAXS and WAXS". Oral presentation, Empa PhD symposium-2017, Dubendorf, Switzerland, November 2017

7. **Anjani K. Maurya**, A. Sadeghpour, R. Rossi, A. Dommann, A. Neels. "Structural analysis of electrospun fiber membrane by SAXS and WAXS". Oral Presentation, Swiss Crystallography meeting -2017 Geneva, Switzerland, September 2017

6. **Anjani K. Maurya**, N. Saxena and P. Müller-Buschbaum, "In-plane and cross-plane Seebeck coefficients in organic thermoelectric thin films", 6th Energy Colloquium of the Munich School of Engineering, TUM, Germany, July 2016

5. **Anjani K. Maurya**, N. Saxena, and P. Müller-Buschbaum, "Enhancement of Seebeck coefficient by dedoping of conducting polymer", Summer school, Austria, June 2016

4. **Anjani K. Maurya**, N. Saxena, P. Müller-Buschbaum, "Hybrid Based Thermoelectrica", MaMaSELF status meeting, oral presentation, Rigi Kulm, Switzerland, May 2016

3. **Anjani K. Maurya**, N. Saxena, P. Müller-Buschbaum, "Hybrid Based Thermoelectrica", Poster presentation, The German Physical Society (German: Deutsche Physikalische Gesellschaft, DPG) meeting 2016, Regensburg, Germany, March 2016

2. **Anjani K. Maurya**, "Band gap variation in bilayer graphene and silicene under transverse electric field", Poster presentation, International Conference on Advance Nanomaterials and Nanotechnology (ICANN-2013), IIT Guwahati, India, December 2013

1. Lalhriatzuala, **Anjani K. Maurya**, Pratima Agarwal,"Structural and transport studies of ZnS thin film prepared by Doctor Blade's technique", Poster Presentation, Condensed Matter Days Conference 2011, Guwahati University, India, August 2011