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List of Patents, Publications, and Book Chapters

List of Patents

1. A biosensor for detection of a biochemical analyte and a method of fabrication thereof, **Ankita Singh** and Ashish Kumar Mishra, Indian Patent Application 202311076099, Date- 07-11-2023.

List of Publications

1. **Ankita Singh**, Rohit Kumar Gupta and Ashish Kumar Mishra*, Thermal transport and optical anisotropy in CVD grown large area few-layer MoS₂ over an FTO substrate, **Applied Physics Letters**, **124 (2024) 031106**.
2. **Ankita Singh** and Ashish Kumar Mishra*, Large Area CVD Grown Vertically and Horizontally Oriented MoS₂ Nanostructures as SERS Biosensors for Single Molecule Detection, **Nanoscale**, **15 (2023) 16480**.
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Book Chapters

- 1) **Ankita Singh**, Jay Deep Gupta, Priyanka Jangra and Ashish Kumar Mishra*, **Chapter 7: Layered Chalcogenides: Evolution from Bulk to Nano-Dimension for Renewable Energy Perspectives**, **Book:** Nanomaterials- Advances and Applications, **Publisher:** Springer Nature (2023), **ISBN:** 978-981-19-7962-0, **Pages:** 177-204, 2023.
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Schools/Workshops/Conferences Attended

- 1) **Ankita Singh**, Bishnu Pada Majee and Ashish K. Mishra*. Optically Anisotropic Behavior of CVD Grown Large Area Few Layer Graphene, National Symposium on Contemporary Trends and Future Prospects of Functional Materials (**CTFM**), Institute of Science, Banaras Hindu University, Varanasi, India, **November 2019** (Poster presentation).
- 2) **Ankita Singh** and Ashish K. Mishra*. Angle Resolved Raman Spectroscopy Study of Few Layer MoSe₂, International Conference on Advanced Materials and Nanotechnology (**AMN**), Jaypee Institute of Information Technology, Noida, India, **February 2020** (Poster presentation).
- 3) **Ankita Singh** and Ashish Kumar Mishra*. Layer dependent band gap investigation of MoS₂ nanostructure, 6th International Conference on Nanoscience and Nanotechnology (**ICONN**), SRM Institute of Science and Technology, Kattankulathur, India, **February 2021** (Poster presentation).
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- 6) **Ankita Singh**, Workshop on Recent Advances in Interdisciplinary Chemical Sciences (RAICS), Mahila Mahavidyalaya, Banaras Hindu University, Varanasi, India, **May 2022**.
- 7) **Ankita Singh**. Faculty Development Programme on Materials Characterization, conducted by Electronics and ICT Academy, IIT Roorkee, India, **September 2022**.
- 8) **Ankita Singh**, Online two days hands on Training workshop on NanoDCAL software for Nanoelectronics material and Device Simulation, **December 2022**.