

CURRICULUM VITAE

Dr. Arpan De



Current Position (Dec. 2019 Onward)

Assistant Professor

Department of Physics,

Rabindra Mahavidyalaya,

Champadanga, Hooghly, WB – 712401

Educational Background:

2018 PhD in Physics

2011 M. Sc. in Physics

2009 B. Sc. in Physics

Research Skills:

- Group-III Nitride Thin Film Growth: Molecular Beam Epitaxy
- Data Analysis: RHEED, HRXD, FESEM, UV-NIR Absorption Spectroscopy, XPS, PL and CL Spectroscopy, Hall Effect measurement using four probe
- Hands on experience with Instruments: MBE, RGA, RHEED, HRXD, UV-NIR Absorption Spectroscopy, PL Spectroscopy, Hall Effect measurement system
- Associated Softwares: Origin, Gwyddion, Fityk, GIMP, Inkscape, LaTeX, Mendeley Desktop, MS Office
- Familiar with computer programming using C, FORTRAN, python and Scilab languages

List of Publications:

1. “Lowering of growth temperature of epitaxial InN by superlattice matched intermediate layers”, M. Tangi, Arpan De, and S. M. Shivaprasad : Physica Status Solidi A 210, 2409 (2013)
2. “Spontaneous growth of $\text{In}_x\text{Ga}_{1-x}\text{N}$ nanostructures directly on c-plane sapphire by plasma assisted molecular beam epitaxy”, Arpan De, K. K. Nagaraja, M. Tangi and S. M. Shivaprasad : Materials Research Express 1, 035019 (2014)

3. "Pre-nitridation induced In incorporation in $\text{In}_x\text{Ga}_{1-x}\text{N}$ nanorods on Si(111) grown by molecular beam epitaxy", Arpan De, M. Tangi, and S. M. Shivaprasad : Journal of Applied Physics 118, 025301 (2015)
4. "Epitaxy, phase separation and band-edge emission of spontaneously formed InGaN nanorods", Arpan De and S. M. Shivaprasad : Journal of Physics D: Applied Physics 49, 355304 (2016)
5. "Electron mobility of self-assembled and dislocation free InN nanorods grown on GaN nanowall network template", M. Tangi, Arpan De, J. Ghatak, and S. M. Shivaprasad : Journal of Applied Physics 119, 205701 (2016)
6. "Role of dislocations and carrier concentration in limiting the electron mobility of InN films grown by plasma assisted molecular beam epitaxy", M. Tangi, Arpan De, and S. M. Shivaprasad : Journal of Applied Physics 123, 015701 (2018)
7. "Growth of high quality InN films and nano-rods grown on GaN nanowall network", M. Tangi, Arpan De and S. M. Shivaprasad : IEEE Conference Proceedings, 1-5 (2014)