

**OBJECTIVE:** Seeking a faculty position using background in PhD in Physics

**SUMMARY OF QUALIFICATIONS:**

**EDUCATION:**

**PhD in Physics:** University of Houston, TX. Fall 2010-Summer 2015.

**Subjects taken:**

Math Methods I and II,  
Statistical mechanics,  
Classical mechanics,  
Quantum mechanics I and II  
Solid state Phys. I and II,  
Plasma Physics,  
Quantum field theory.

University of Mississippi, MS. Fall,2008-Fall,2010.

**M.S. in Physics:** University of Calcutta, India, 2004.

**B.S. in Physics:** University of Calcutta, India, 2002.

**RESEARCH EXPERIENCE:**

Department of Physics, University of Houston, August,2010-August,2015.

**PhD Dissertation topic:** Effect of N-species of RF nitrogen plasma source on the morphology and mechanism of GaN nanocolumn (NC) by PAMBE:

**COMPUTER SKILLS:**

MS office, Matlab, LATEX, ImageJ software, Origin.

**WORK EXPERIENCE:**

**2005-2008:**

**Lecturer:** Institute of Technology and Marine engineering

- Taught Engineering physics to undergraduate engineering students.

Topics taught: **Mathematical Physics, Electromagnetism, Classical mechanics, Quantum mechanics, Optics, Special theory of relativity, Solid state physics, Statistical mechanics, Nuclear physics.**

- Instructed experiments in engineering physics laboratory.

**2008-2010:**

**Teaching Assistant, Dept. of Physics, University of Mississippi**

**2010-2015:**

**Teaching Assistant, Dept. of Physics, University of Houston.**

Ananya Debnath

- Taught Introductory Physics Laboratory. Responsibilities included lecturing on lab material and grading lab reports.
- Grader of Thermal Physics (PHYS) 3327, Occasionally hold problem sessions.  
Grader of Modern Physics (PHYS) 3316.

**03/15/2016-present**

**Adjunct instructor of Math and Physics in ITT Technical Institute.**

**PH2530T Syllabus:** This course introduces students to the principles of general physics. This course includes a laboratory component.

Major Instructional area: Classical mechanism, Electromagnetism, Thermodynamics, Modern physics.

**MA1310T syllabus:** Major instructional area: Series and sequence, Logarithmic and exponential functions, Trigonometry, Laws of sines and cosines, Polar and rectangular coordinates, Complex number, equations and inequalities

**Contact persons:** Dr. Donna Stokes  
dstokes@uh.edu

Dr. Lowell Wood  
ltwood@uh.edu

**CONFERENCE:**

**Poster presentations:**

**29th North American Molecular Beam Epitaxy 2012, Stone Mountain Park, Georgia, October 14-17, 2012.**

- GaN Intermediate Layers for Relaxation Management during Growth of InGaN.

**Conference presentation:**

**AVS Texas Chapter Conference 2014 August 6th and 7th, University of Texas at Dallas**

- Effect of metastable N<sub>2</sub>\* and atomic N on the morphology and mechanism of GaN nanocolumns grown by Molecular Beam Epitaxy on SixN<sub>1-x</sub>/Si(111)

**PUBLICATIONS**

**Effect of metastable N<sub>2</sub>\* and atomic N on the morphology of GaN nanocolumns grown by Molecular Beam Epitaxy on SixN<sub>1-x</sub>/Si(111)** A. Debnath, J.S. Gandhi, M Kesaria, R. Pillai, D. Starikov, A. Bensaoula, J. Vac. Sci. Technol. B 33, 011205, 2015.

**InGaN/Silicon Heterojunction Based Narrow Band Near-Infrared Detector** R. Pillai, D. Starikov, J.S. Gandhi, A. Debnath, R. Li, C. Boney, A. Bensaoula, Jour. Of Appl. Phys., 119, 104302, 2016.

Ananya Debnath