



### **Opening for Postdoctoral Research Fellowship in III-Nitride Optoelectronics at Lehigh University**

Postdoctoral Research Fellowship (Postdoc) position is available for conducting research on wide bandgap semiconductor optoelectronics in my research group, within the Center for Optical Technologies (COT) and Department of Electrical and Computer Engineering (ECE) at Lehigh University. Specifically, the Postdoc is expected to conduct experimental research in the field of wide bandgap III-Nitride semiconductor optoelectronics materials and devices. The position is available immediately, to begin in mid 2006.

The candidates should have a PhD in electrical engineering, applied physics, physics, material science engineering, or other related fields. Excellent candidate should have a strong research background in 1) MOCVD epitaxy of III-Nitride semiconductor, 2) semiconductor materials characterization, and 3) device fabrications of III-Nitride semiconductor optoelectronics. Expertise / experiences in all three areas are beneficial, but experience on MOCVD epitaxy and fabrication technologies of III-Nitride would be strongly considered. Candidates should have strong motivation, desire to succeed, full of creativity, and excellent potential for state-of-the-art research in the areas of semiconductor optoelectronics materials and devices. The Postdoc will also work together with other graduate students and Postdoc(s) in the group, which involves theoretical and experimental aspects of the projects.

The project will focus on development of novel gain media based on III-Nitride semiconductor for high-efficiency UV up to visible LEDs and lasers. The goal is to achieve a significantly improved LEDs / lasers in the UV / visible regime with potential applications in biological sensing / solid state lighting devices. Novel approach to achieve mid-infrared lasing using III-Nitride semiconductor will also be pursued as an exploratory project. These efforts will be pursued by the Postdoc along with the graduate students in the group.

Though candidates with expertise / experiences on MOCVD epitaxy and fabrication technologies of III-Nitride semiconductor optoelectronics would be strongly considered, similar expertise (MOCVD / MBE and device fabrications) on other material systems would also be considered. For interested candidates, please send your resume to my email at [Tansu@Lehigh.Edu](mailto:Tansu@Lehigh.Edu) . My contact information is also listed below:

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