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Electronic homogeneity of nanowire heterostructure Light Emitting Diodes (LEDs) CAMELIA SELCU, BRELON J. MAY, A. T. M. GOLAM SARWAR, ROBERTO C. MYERS, The Ohio State University — In addition to low defect densities and great tunability bandgap within a single heterostructure, the possibility of growing (Al, In,_) GaN nanowire heterostructure LEDs on different substrates while maintaining their high electronic and optical properties makes them very attractive. We investigated the electronic homogeneity of the (Al, In,_) GaN nanowire ensemble by acquiring current maps at certain applied biases using conductive AFM. By taken IVs on individual nanowires, we found that different wires have different turn on voltages and that some of the nanowires degrade due to the applied bias.

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None

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