

# Fabrication of a High-Stability Blue-Light-Emitting Diode Based on n-ZnO Nanorods/p-GaN Structure Heterojunction Grown by Hydrothermal Method

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Through a facile low-temperature hydrothermal process, heterojunction light-emitting diode (LED) was successfully fabricated by growing vertically aligned ZnO nanorods on ZnO seeded p-GaN substrate. Structural measurement revealed that nanorods with wurtzite structure having a preferential orientation along the (002) c-axis. The electrical measurements showed an excellent rectifying behavior with low threshold voltage, which confirms the formation of a heterojunction diode. The electroluminescence spectra showed that the intensity of blue emission at 400 nm increased with increasing forward bias voltage.