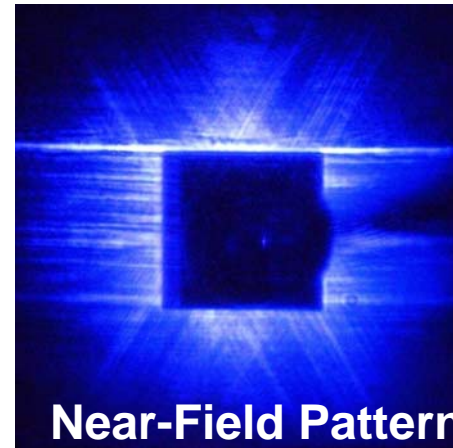
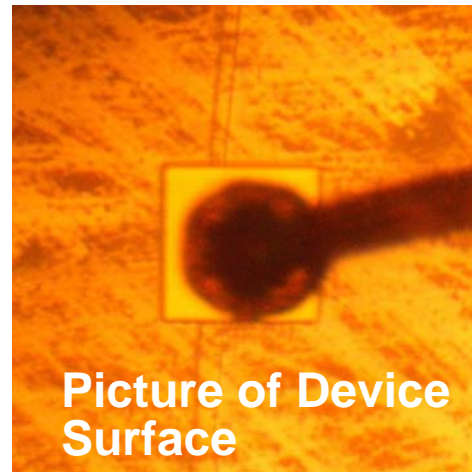
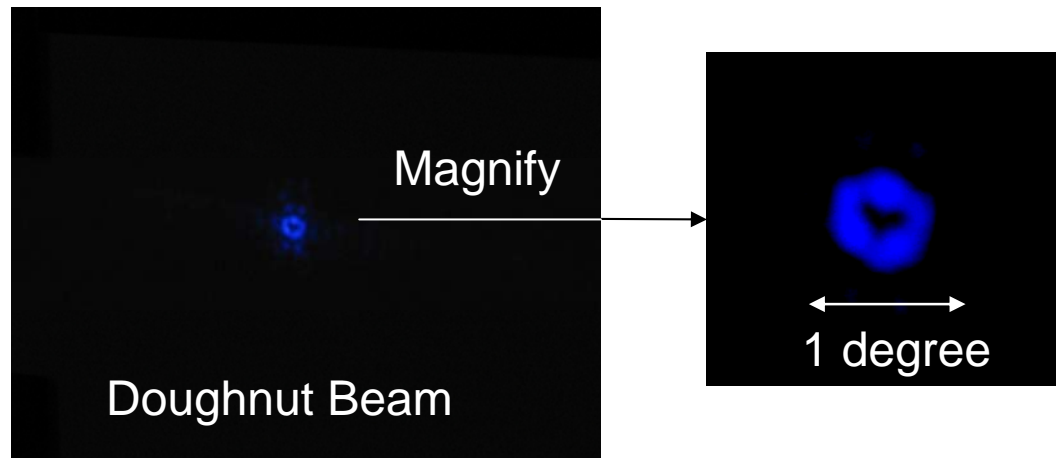


# GaN Blue-Violet Photonic Crystal Surface-Emitting Laser



Near-field pattern after lasing oscillation. Central square ( $100\mu\text{m} \times 100\mu\text{m}$ ) is electrode. Large area blue-violet lasing oscillation has been successfully achieved.



Far-field pattern (Beam Pattern). Reflecting large area oscillation, very narrow divergence angle ( $< 1$  degree) has been obtained. Unique beam pattern, which could be focused much smaller than wavelengths, has been obtained.