

## **Optical properties of GaN nanostructures for optoelectronic applications**

### **Abstract**

Electrochemical deposition method is used to prepare GaN nanostructure. The morphological studies using scanning electron microscopy (SEM), photoluminescence (PL) the refractive index and optical dielectric constant are investigated experimentally and theoretically, respectively. These investigations are found to be dependent on the growth time. The nanosize effect is noticed for UV detectors applications. The calculated results are in agreement with experimental and theoretical data.

### **Keyword**

Electrochemical; GaN nanostructure; Photoluminescence (PL)