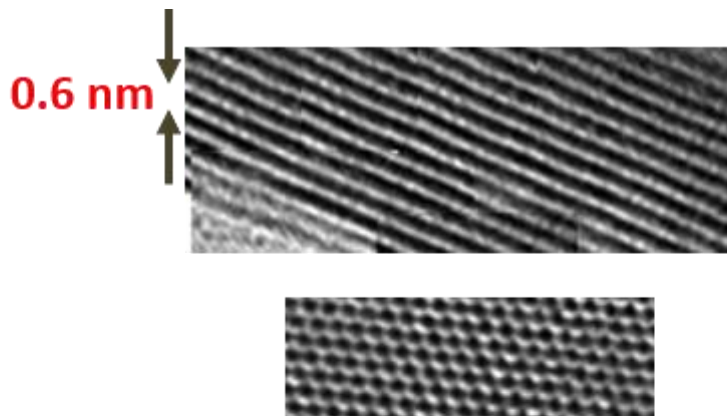


| | |
|----------------------|---|
| Crystal size | ~3-5 mm in size (note: doped crystals cannot be large due to reduced growth speeds) |
| Dopants | p-type $\sim 10^{17-18} \text{cm}^{-3}$ (Nb dopant) (other dopants on request) |
| Material properties | 1.56 eV emission (300K), direct gap semiconductor |
| Crystal structure | Hexagonal phase |
| Unit cell parameters | $a = b = 0.331 \text{ nm}$, $c = 1.298 \text{ nm}$, $\alpha = \beta = 90^\circ$, $\gamma = 120^\circ$ |
| Growth method | [Default] Flux zone (no halide contamination) defect free [Optional CVT]: Contains Br_2 , Cl_2 , TeCl_4 , and other halides |
| Purity | 99.9999 % confirmed |



- **High crystallinity**
- **12 years of growth optimization to reach 1 parts in 10000 defects or less**
- **High photoluminescence and electronic mobility**
- **Years of reproducibility**
- **No vacancy or amorphization**