

Figure 1. Structural illustrations of (a) β -LiGaO₂ with orthorhombic Pna2₁ crystal structure; and (b) LiGa₅O₈ with spinel cubic P4_33 $\overline{2}$ crystal structure.

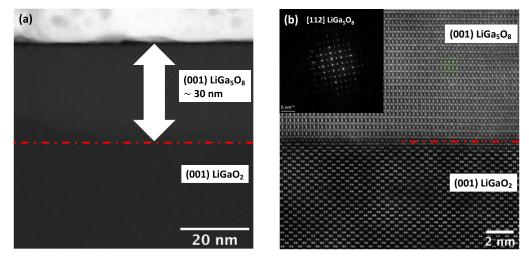


Figure 2. (a) Cross-sectional STEM image and (b) atomic resolution HAADF image and diffract pattern of $LiGa_5O_8$ thin film grown on (001) $LiGaO_2$ substrate. The interface is marked by a red dash-dotted line.

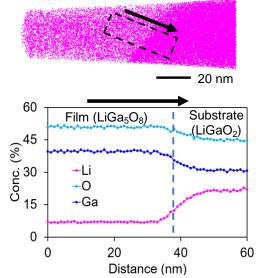


Figure 3. Reconstructed atom map of the $LiGa_5O_8$ film grown on (001) $LiGaO_2$ substrate as well as the atomic concentration for Li, Ga and O along the marked direction across the substrate/epi-layer interface. Only the Li atoms are shown in the upper figure with pink dots.