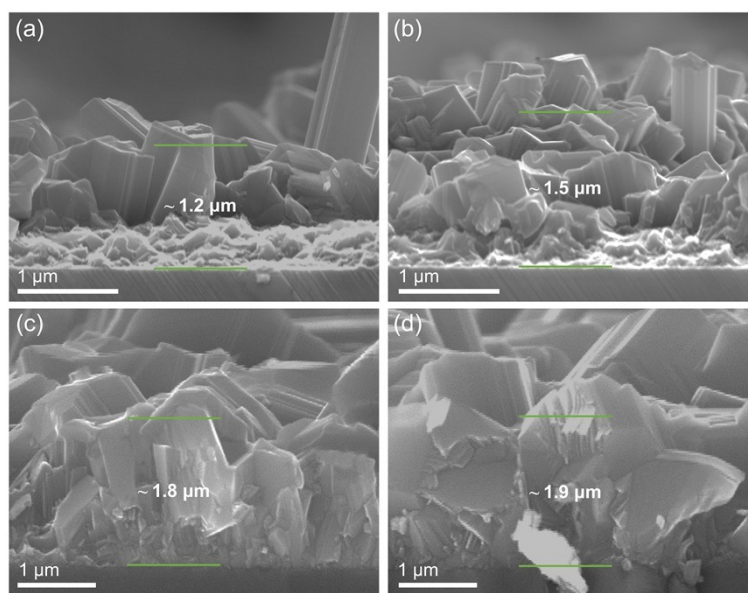
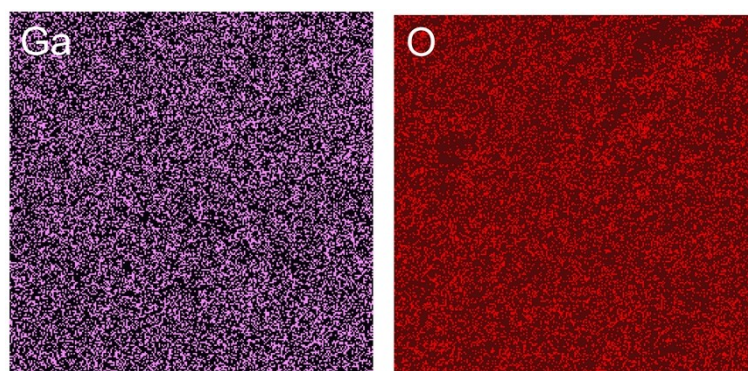


[Supporting Information]



**Figure S1.** Cross-sectional SEM images of Ga<sub>2</sub>O<sub>3</sub> films prepared at different heating rates during thermal oxidation. (a) 20 °C/min, (b) 10 °C/min, (c) 5 °C/min, and (d) 2 °C/min.



**Figure S2.** SEM-EDX mapping of Ga<sub>2</sub>O<sub>3</sub> film at a scale of 100 μm × 100 μm.