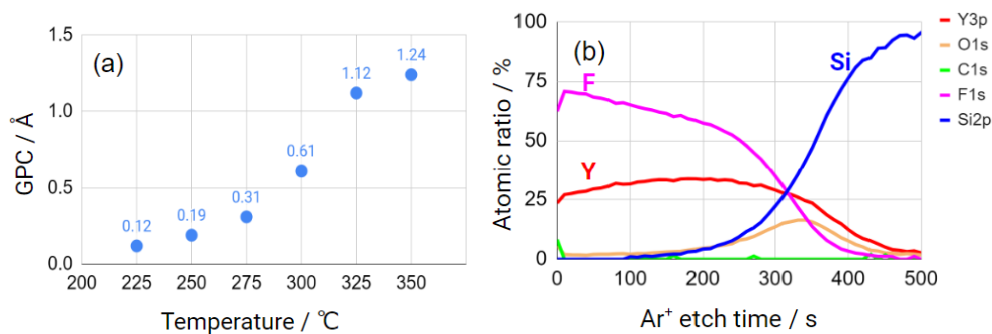
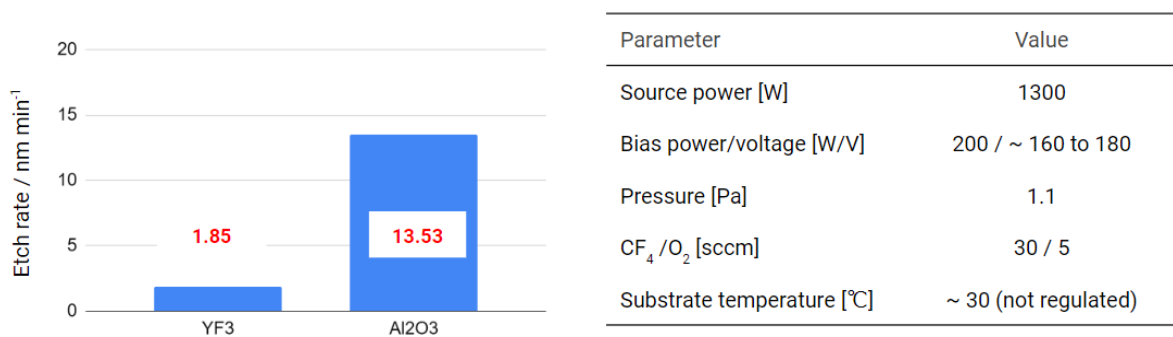


Supplemental Document “Development of HF-free YF<sub>3</sub> ALD process and its dry etch resistance”



**Figure 1.** (a) The dependence of the GPC on the reactor temperature. The Y-beta prime precursor and O<sub>3</sub> co-reactant are used for this experiment. (b) XPS depth profile of deposited film (the reactor temperature was 300°C).



**Figure 2.** Etch rates of YF<sub>3</sub> thin film (35 nm) and Al<sub>2</sub>O<sub>3</sub> thin film (500 nm). The Al<sub>2</sub>O<sub>3</sub> film was provided by Beneq. The experiment conditions are summarized in the right table.