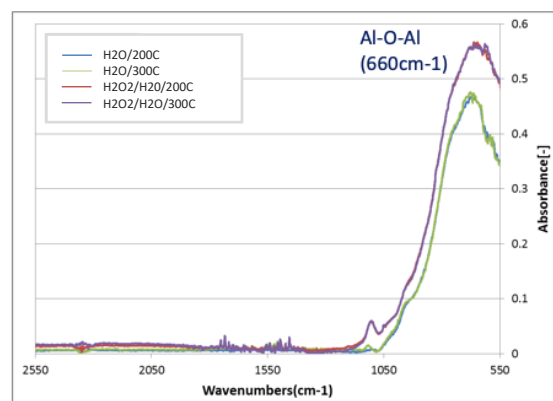
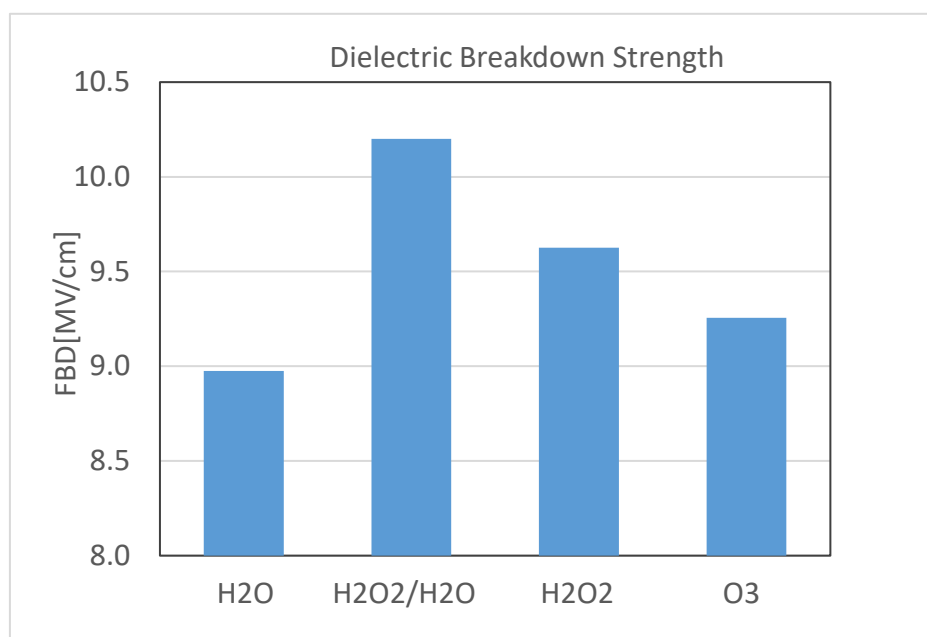


**Figure 1.** ALD Growth rates for Al<sub>2</sub>O<sub>3</sub>: H<sub>2</sub>O<sub>2</sub>/H<sub>2</sub>O > H<sub>2</sub>O > H<sub>2</sub>O<sub>2</sub> > O<sub>3</sub>.



• Film Density : H<sub>2</sub>O<sub>2</sub> > H<sub>2</sub>O

**Figure 2.** FT-IR of Al<sub>2</sub>O<sub>3</sub> films grown with H<sub>2</sub>O<sub>2</sub>/H<sub>2</sub>O vs H<sub>2</sub>O, strong signal for hydrogen peroxide films implies higher density. Spectra are normalized with film thickness.



**Figure 3.** Dielectric Breakdown Strength measurement comparing films grown by all three oxidants. Hydrogen peroxide based film shows a significant increase in this electrical property where H<sub>2</sub>O<sub>2</sub>/H<sub>2</sub>O > H<sub>2</sub>O<sub>2</sub> > O<sub>3</sub> > H<sub>2</sub>O.