

Fig.1 Zinc aluminum oxide ALD system.

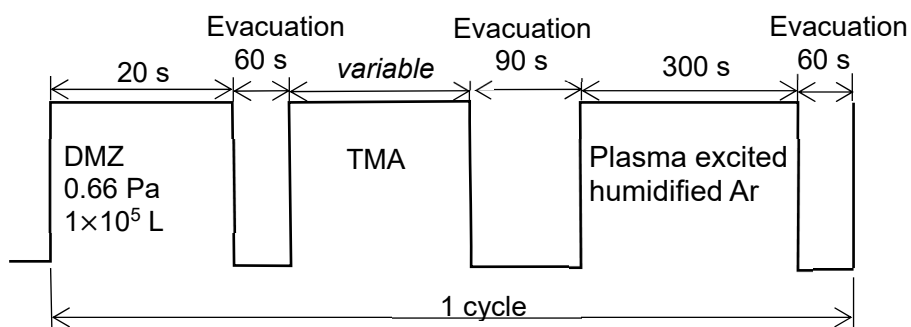


Fig.2 Timing chart of precursor injection in the sequential adsorption.

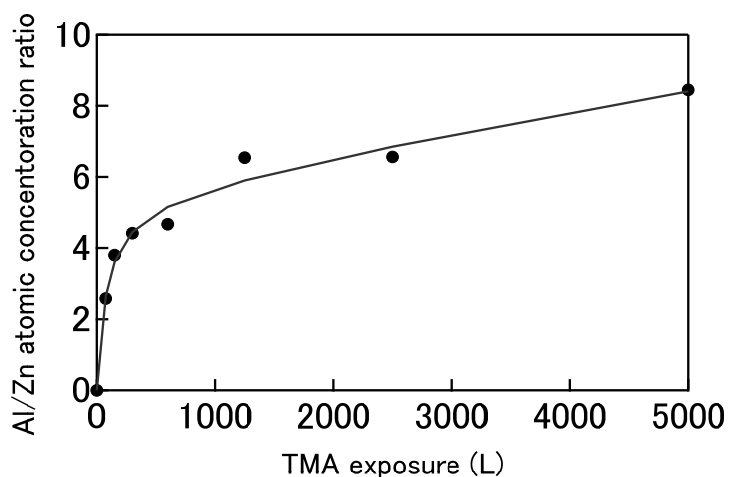


Fig.3 Al/Zn atomic ratios of the zinc aluminum oxide film as a function of the TMA exposure. The film was deposited on a Si (100) substrate. The DMZ exposure was 1.0×10^5 L. It was fitted by one and two-site adsorption model.