## **Supplemental Information**

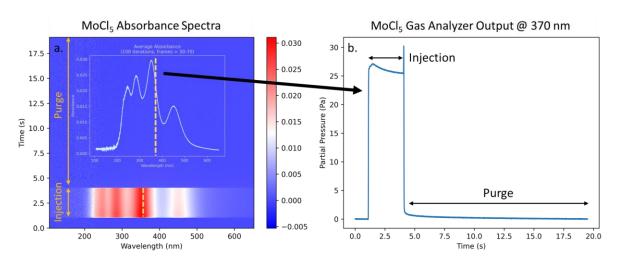


Figure shows (a) time-resolved absorbance spectra obtained during a 3.0 s injection of  $MoCl_5$  at a vessel temperature of 110 °C and using 100 sccm of Ar carrier gas. The corresponding data from the  $MoCl_5$  gas analyzer is shown in (b). Both plots represent an average of 100 injections.