The observed CIMS-to-LIF ratios of OH and HO_2 show similar dependence on temperature as on water mixing ratio (Figure S1). At lower temperature (<5 ºC), the CIMS measured OH mixing ratios are smaller than the LIF measured OH on average. When the temperature is greater than 5 ºC, the median CIMS-to-LIF OH ratio is close to 1. The observed CIMS-to-LIF HO_2 ratio exhibits an opposite temperature dependence compared to the OH ratio. At lower temperatures (<10 ºC, in particular <-10 ºC), the CIMS measured HO_2 mixing ratios are greater than the LIF measured OH. When the temperature is greater than 10 ºC, the median CIMS-to-LIF HO_2 ratio is close to 1.

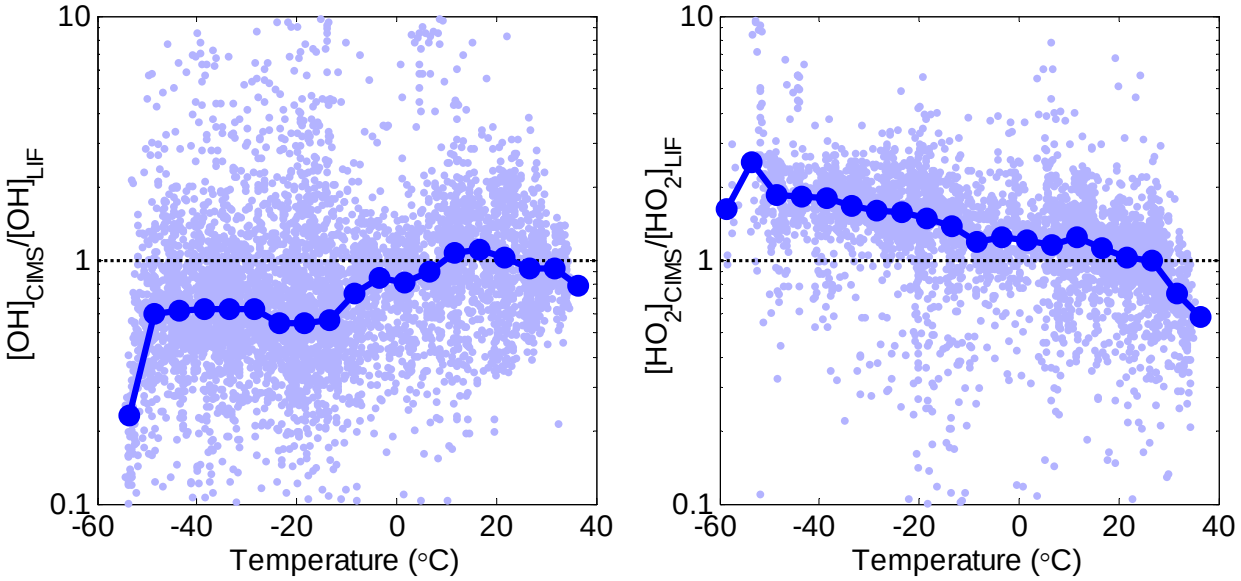

Figure S1. Observed CIMS-to-LIF ratios of OH (left) and HO_2 (right) as a function of temperature. Individual points represent 1-minute data for the entire ARCTAS mission and linked circles are the median values of temperature bins. The dotted lines indicate a ratio of 1.