Other things modified that are not pointed out by the reviewers:

In the original version L361-361, now L406-407, were changed to "The cloud residuals observed in spring, summer and early fall (May 18, 2020 until Sep 12, 2020) show a clear MSA signal, whereas the cloud residuals observed in late fall and winter (Dec 25, 2019; Oct 28 and Dec 9, 2020) do not (Sect. S5, Fig. S8)."

Appearance of Table 1.

Fig. 4: Updated the molecular formulas to the format given in the main text (ICHOX instead of CHIOX), enlarged the legend and adjusted the y-axis.

Fig. 8c: Updated y-labels label for the two y-axes on the right, see below.
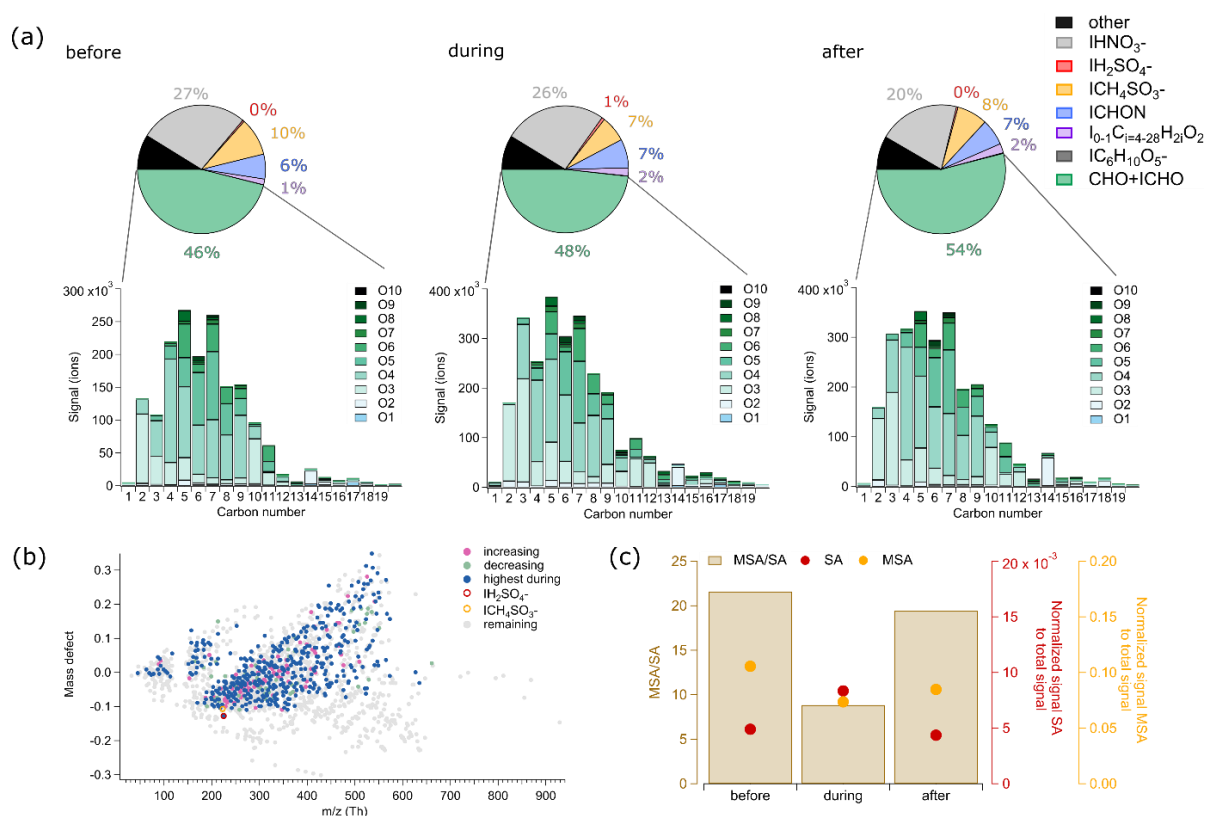

Figure 8: Cloud case on May 18, 2020, chemical composition of total particles before, and after, of cloud residuals during the cloud event. (a) Pie chart showing the relative contribution of groups and individual compounds to the measured FIGAERO-CIMS signal. Green: CHO+ICHO. Purple: fatty acids, blue: ICHON, yellow: ICH_4O_3S- (MSA), red: IH_2O_4S- (SA), grey: $IHNO_3$- (NA). Bar chart with absolute signal of CHO+ICHO compounds before, during and after the cloud event grouped by the number of carbon (1-19) and oxygen (O1-O10) atoms. (b) Mass defect highlighting individual compounds that show an increasing or decreasing trend during the cloud event (all: all compounds detected with the FIGAERO-CIMS; increasing: compounds of which the relative signal is increasing from before, via during until after the cloud; decreasing: compounds of which the relative signal is decreasing from before, via during until after the cloud; highest during: compounds of which the relative signal is highest during the cloud compared to before and after). (c) Ratio of MSA to sulfuric acid (SA) and their normalized signal to the total signal before, during and after the cloud event.

Supplement figure trajectories: label of Jun 14-1 changed to Jun 14.

Change of the email address and the affiliation of the corresponding author.

Supplement Table S1: The date of the blank from September 13 used was added.