

Sub-cloud rain evaporation in the North Atlantic winter trades derived by pairing isotopic data with a bin-resolved microphysical model

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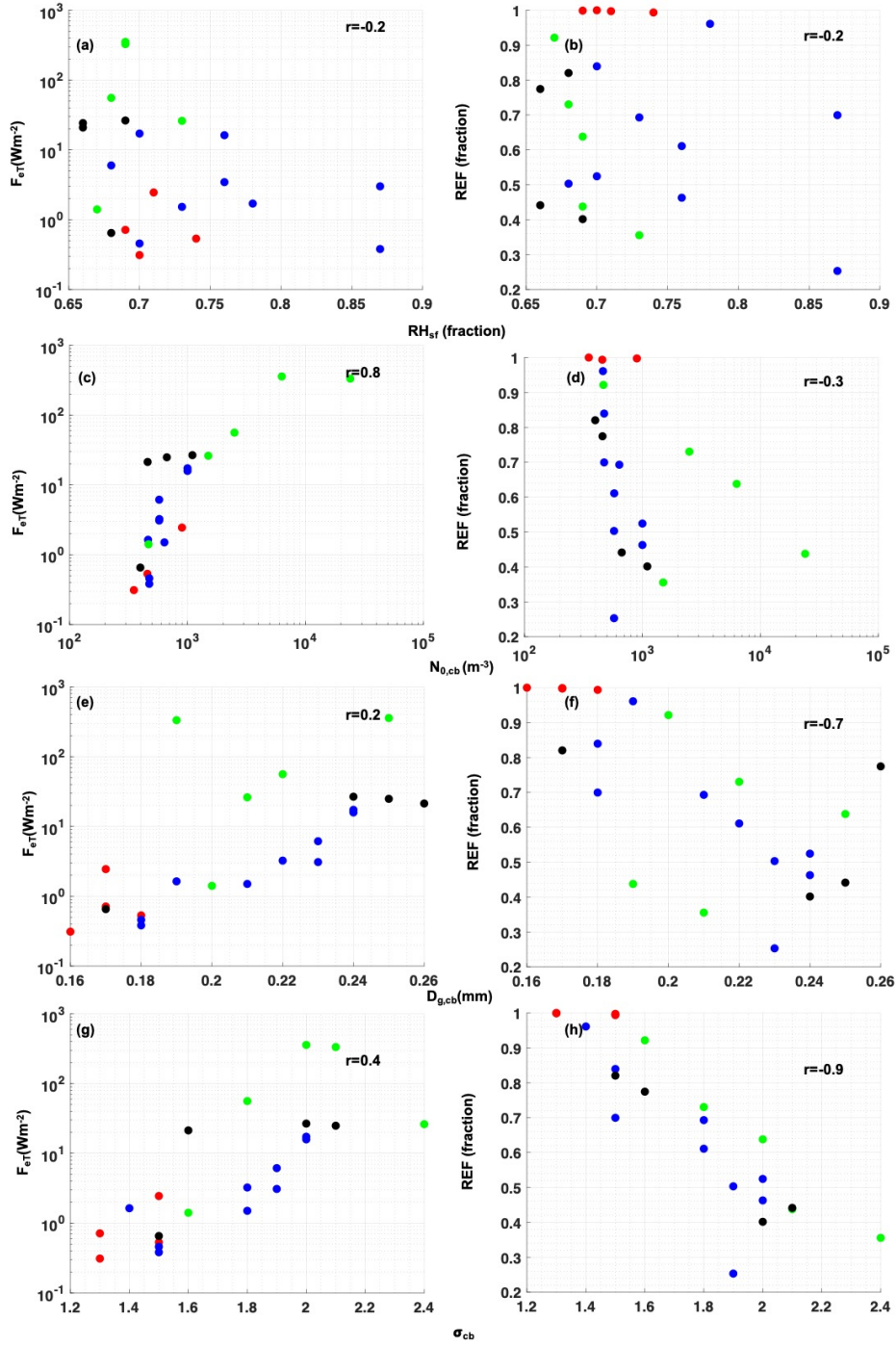


Figure S1. Scatter plots of F_{eT} and REF with a,b) RH_{sf} , c,d) $N_{0,cb}$, e,f) $D_{g,cb}$, and g,h) σ_{cb} for 4, 5, 9 and 10 February coded as red, blue, green and black filled circles, respectively.

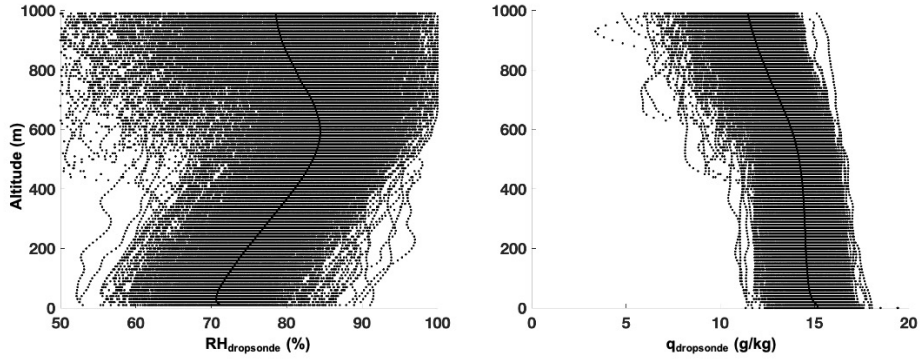


Figure S2. The relative humidity ($RH_{dropsondes}$) in percentage (left) and specific humidity ($q_{dropsondes}$) in g/kg (right) from the dropsondes plotted for all the P3 cases along the dropsonde altitude. The thick black lines are the mean values of RH and q calculated at each vertical level, and the dotted lines show the spread of RH and q.

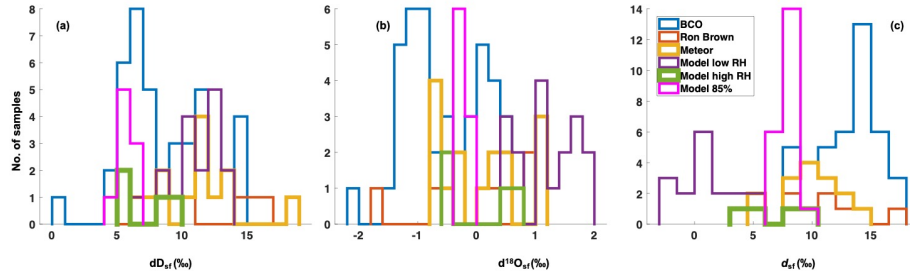


Figure S3. Histograms of surface a) δD_p , b) $\delta^{18}O_p$ and c) d_p observed for the Brown (red), Meteor (yellow) and BCO (blue). The modeled values for the P3 cases with RH_{sf} less than 73% are shown in purple color (legend name: Model low RH). The modeled values with RH_{sf} higher than 73% are shown in the green line (legend name: Model high RH). The modeled values for the 22 P3 cases run at 85% RH_{sf} are shown in the magenta line (legend name: Model 85%).