Supplementary Material: Quantifying the sensitivity of aerosol optical properties to the parameterizations of physico-chemical processes during the 2010 Russian wildfires and heatwave

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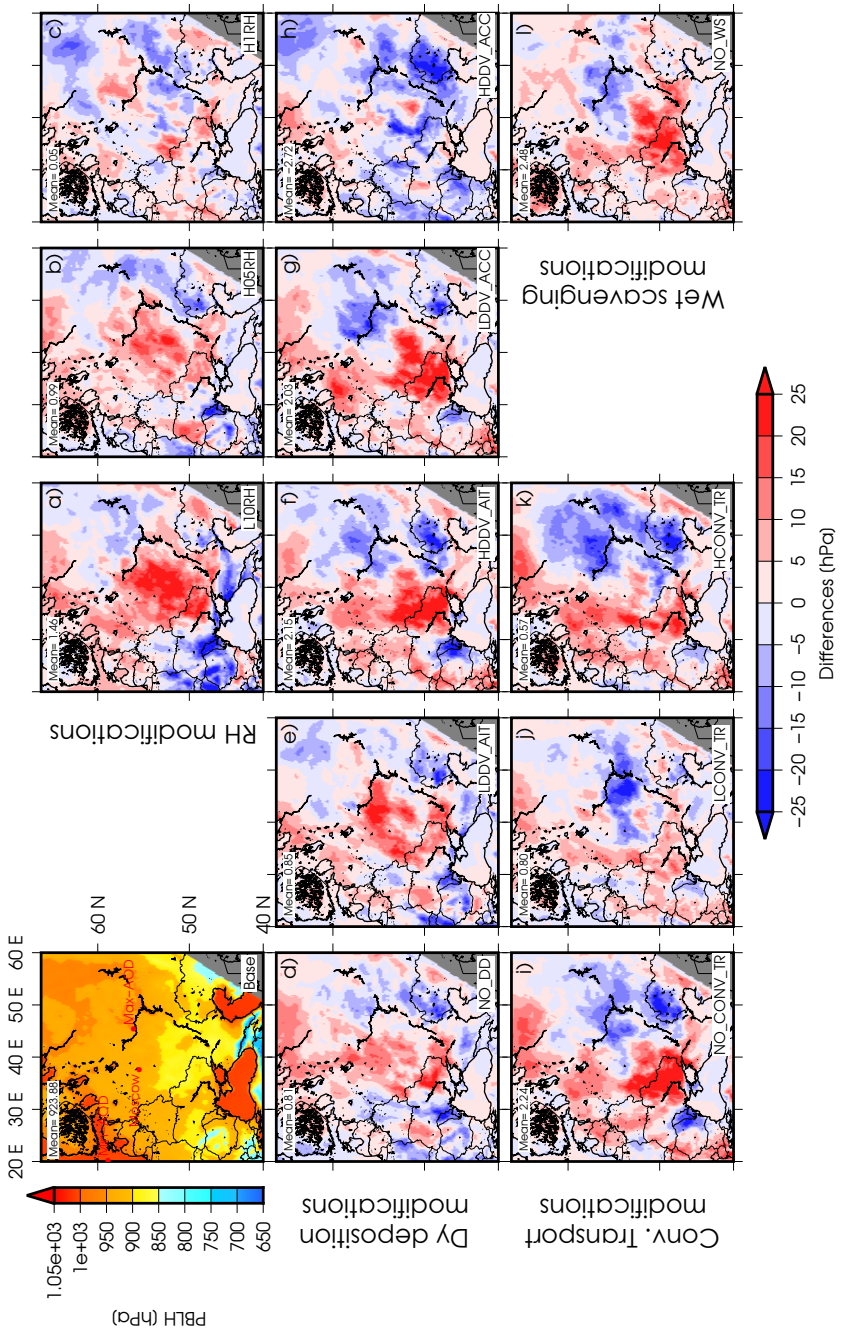

Figure 1. Mean PBL height during the target episode and differences between all the experiments and the base case.

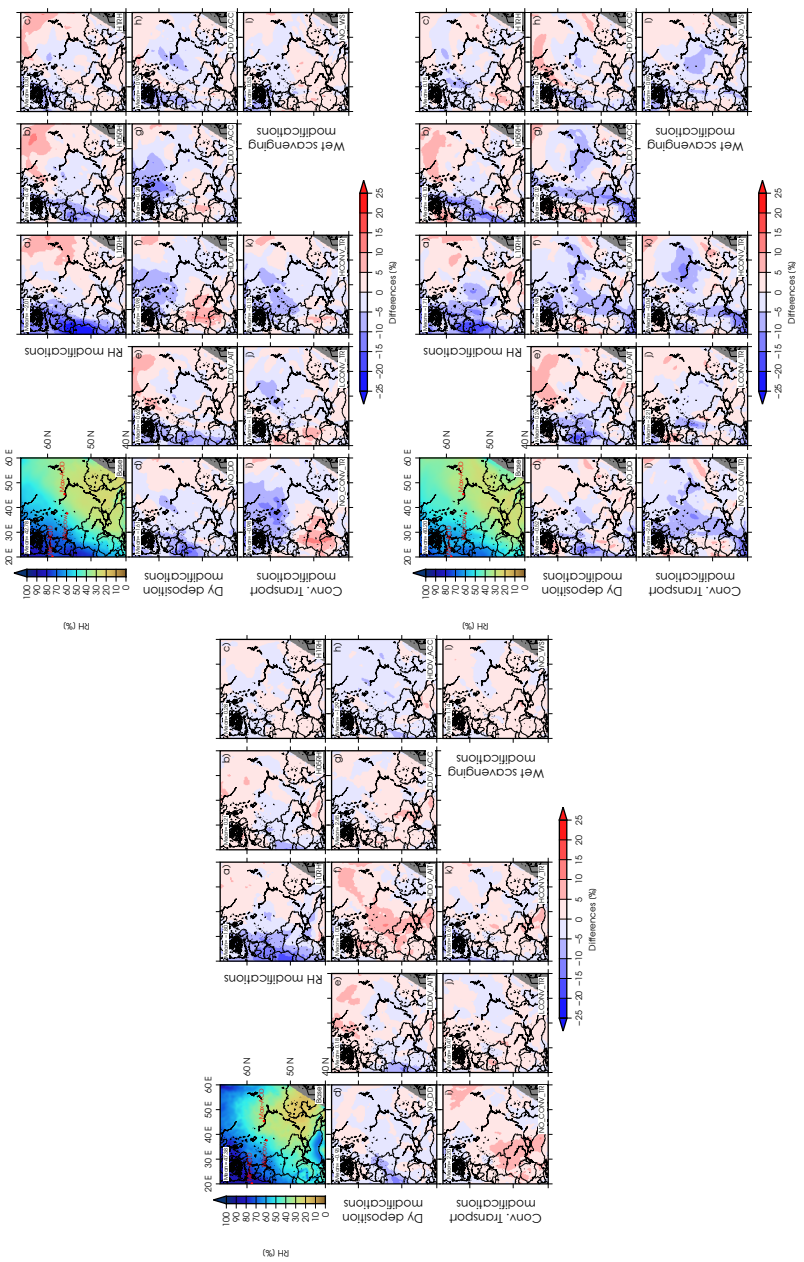

Figure 2. Temporal mean RH values at 1000 (left), 850 (top-right) and 750 hPa (bottom-right) levels during the target episode and differences between all the experiments and the base case.

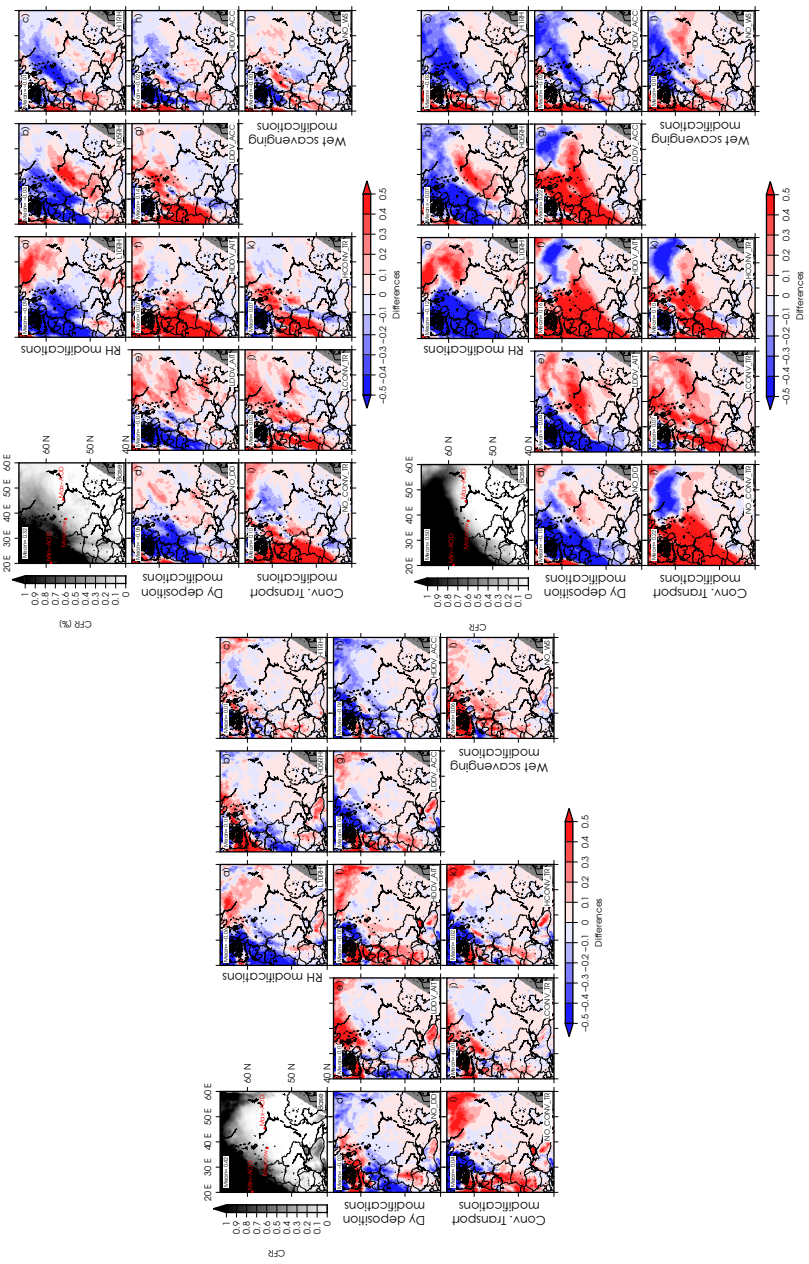

Figure 3. Temporal mean of low cloud fraction (below 680 hPa, left), medium (between 680 and 440 hPa, top-right) and high (above 440 hPa, bottom-right) during the target episode and differences between all the experiments and the base case.

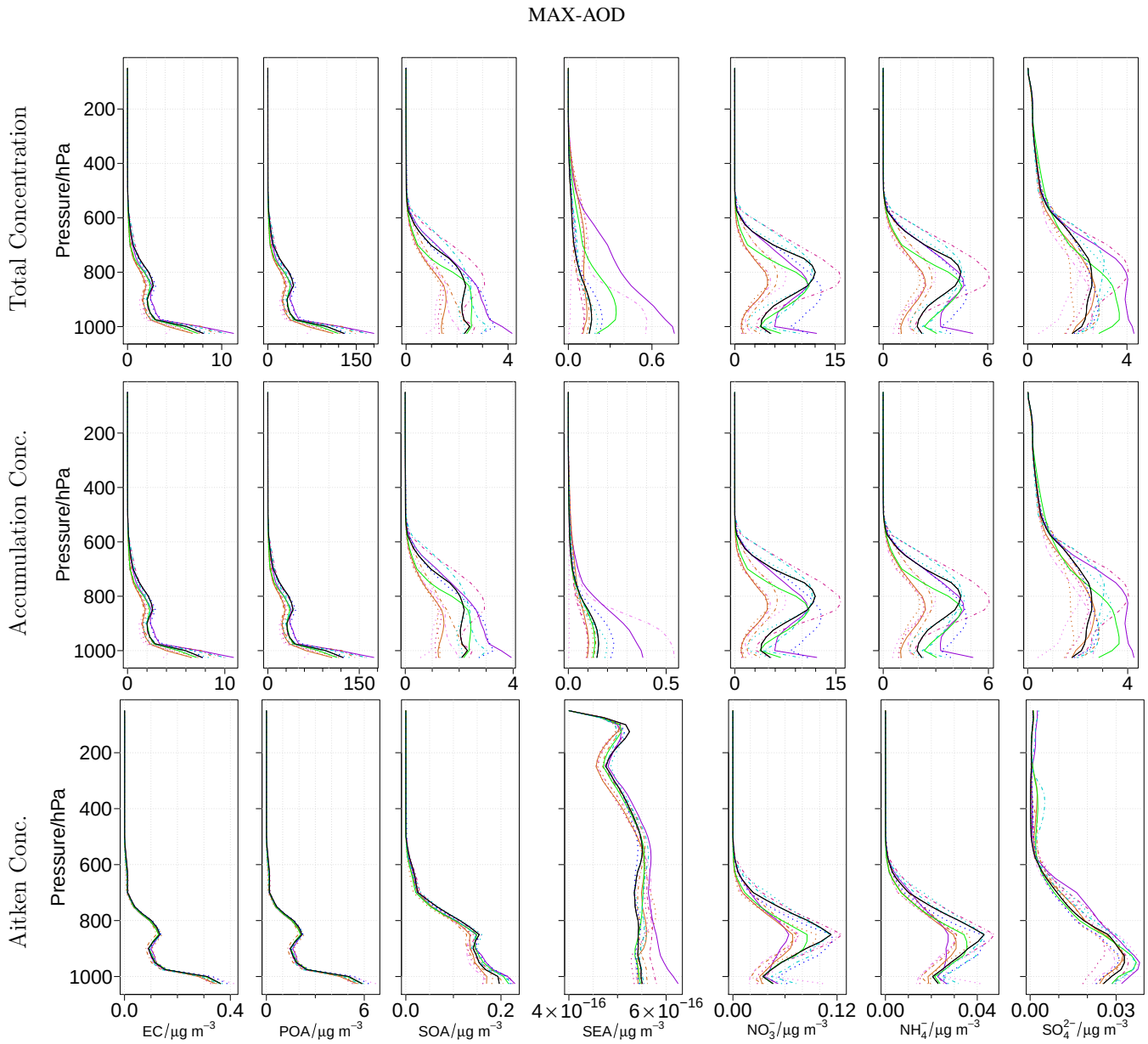

Figure 4. Total concentration profiles over the MAX-AOD location. From second to bottom rows, columns display concentration of EC, POA,SOA, SEA, NO_3^-, NH_4^- & SO_4^{2-}. First row is for total concentration, second in the accumulation mode and bottom in Aitken.

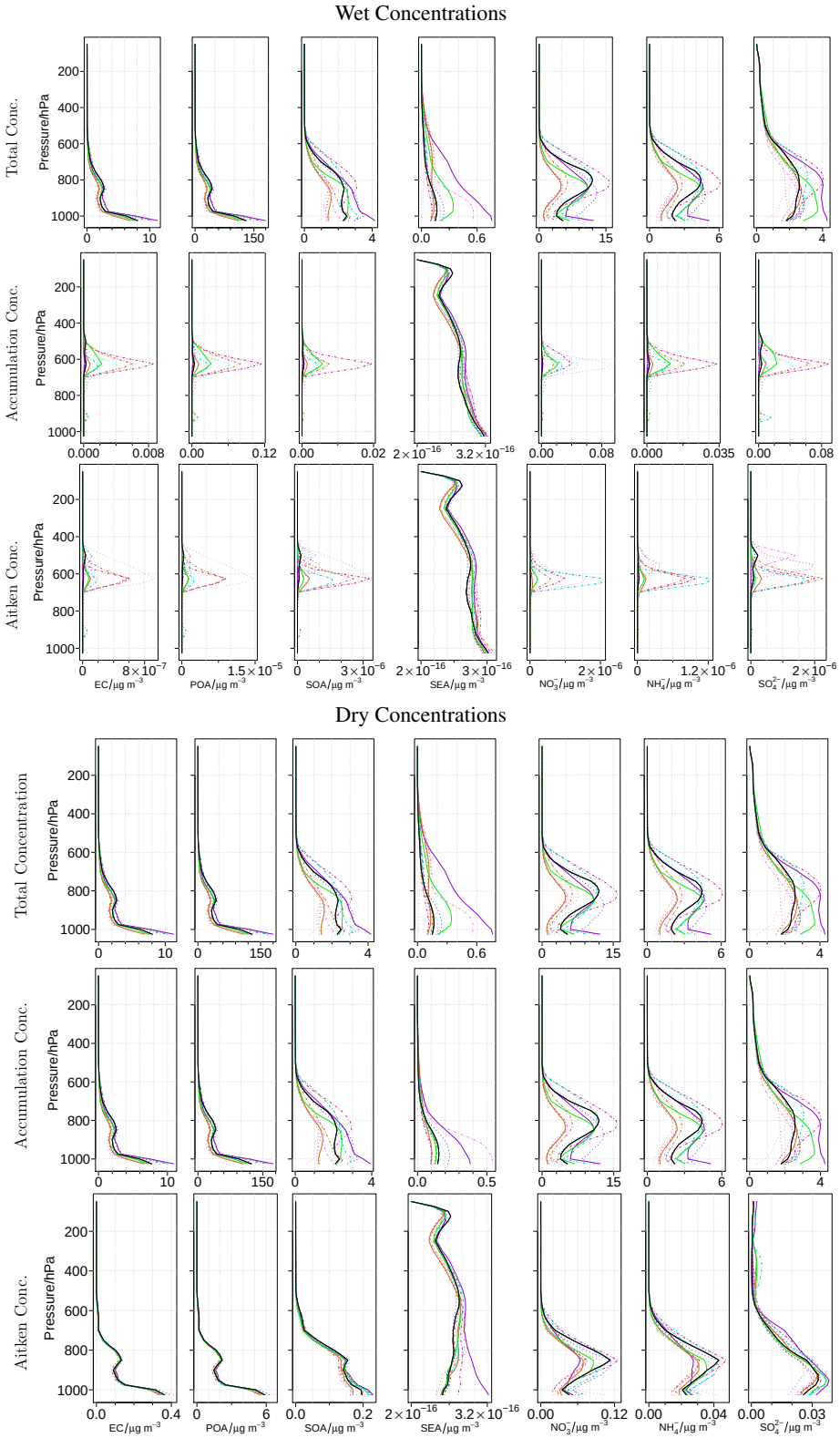

Figure 5. As Figure 4 but for wet (top) and dry (bottom) concentrations.

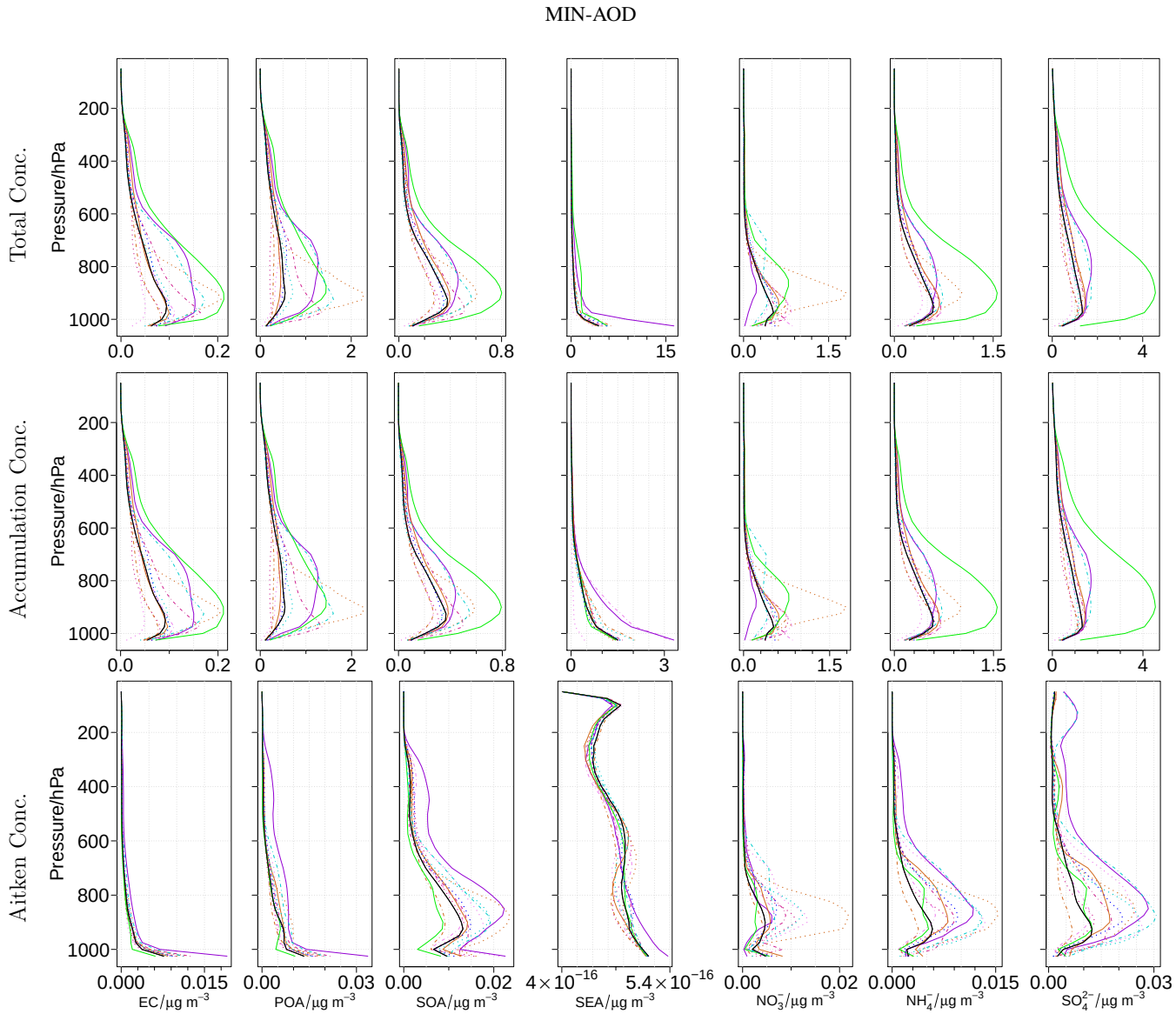

Figure 6. As Figure 4 but over the Min-AOD location.

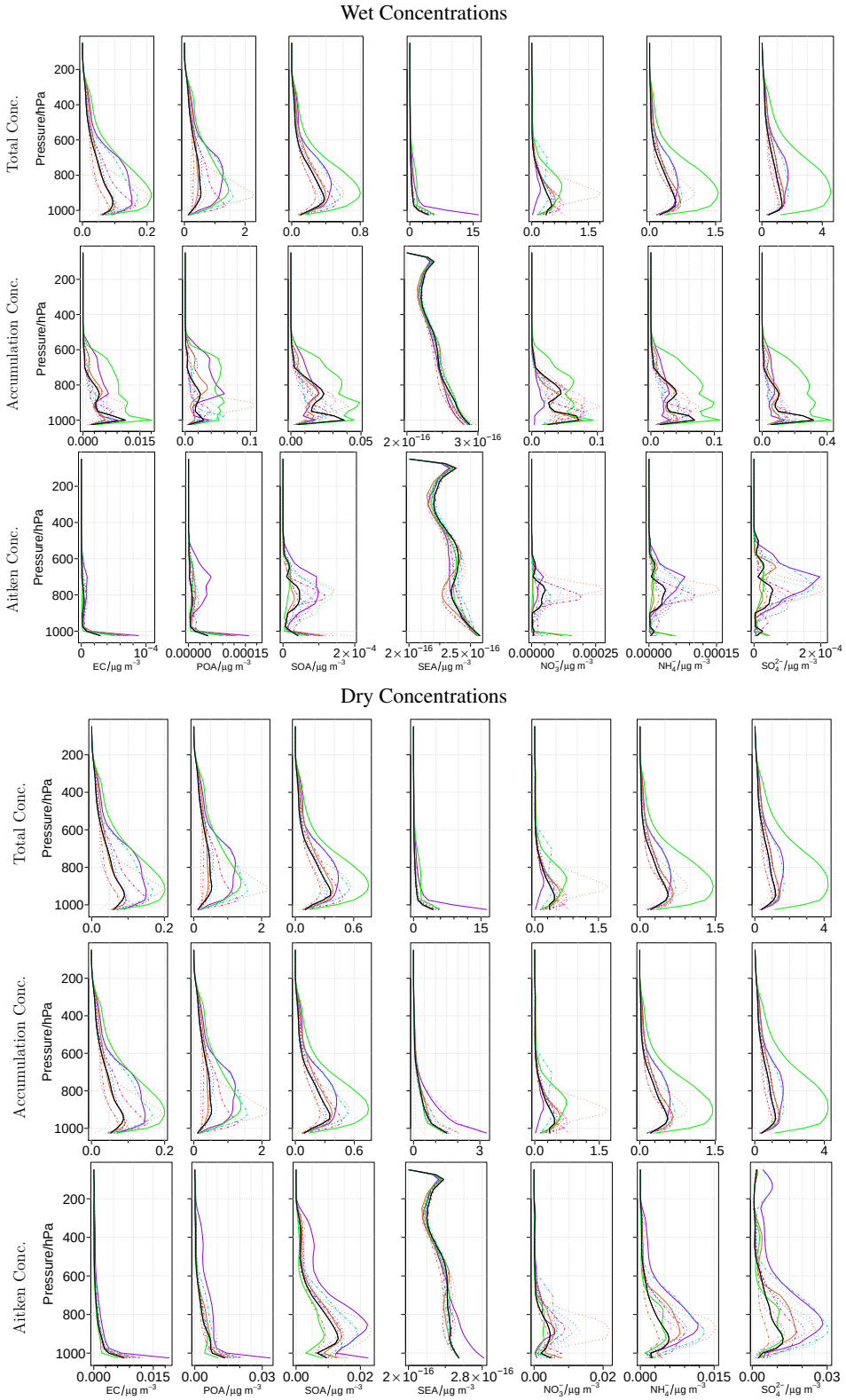

Figure 7. As Figure 6 but for wet (top) and dry (bottom) concentrations.

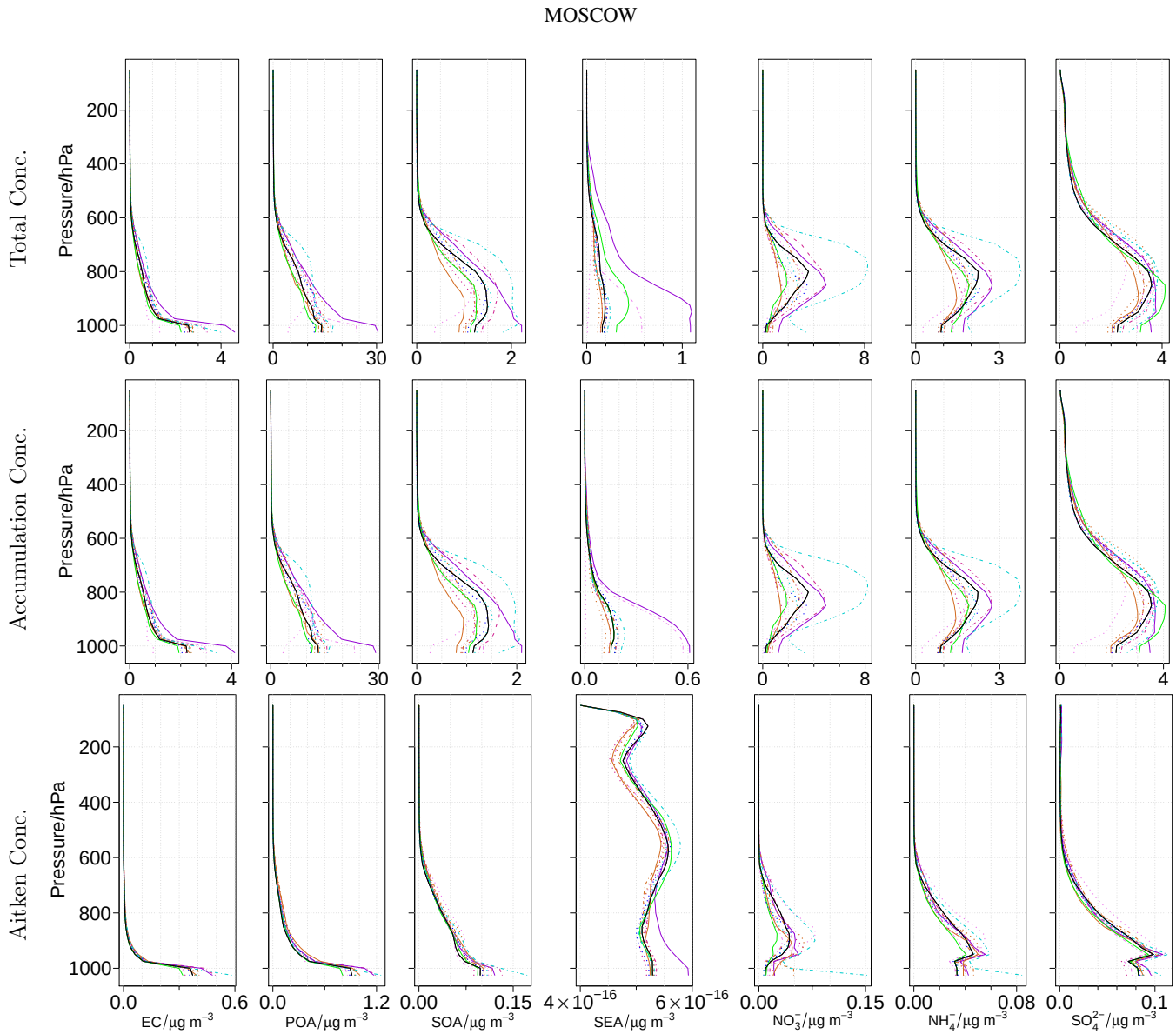

Figure 8. As Figure 4 but over Mowcow location.

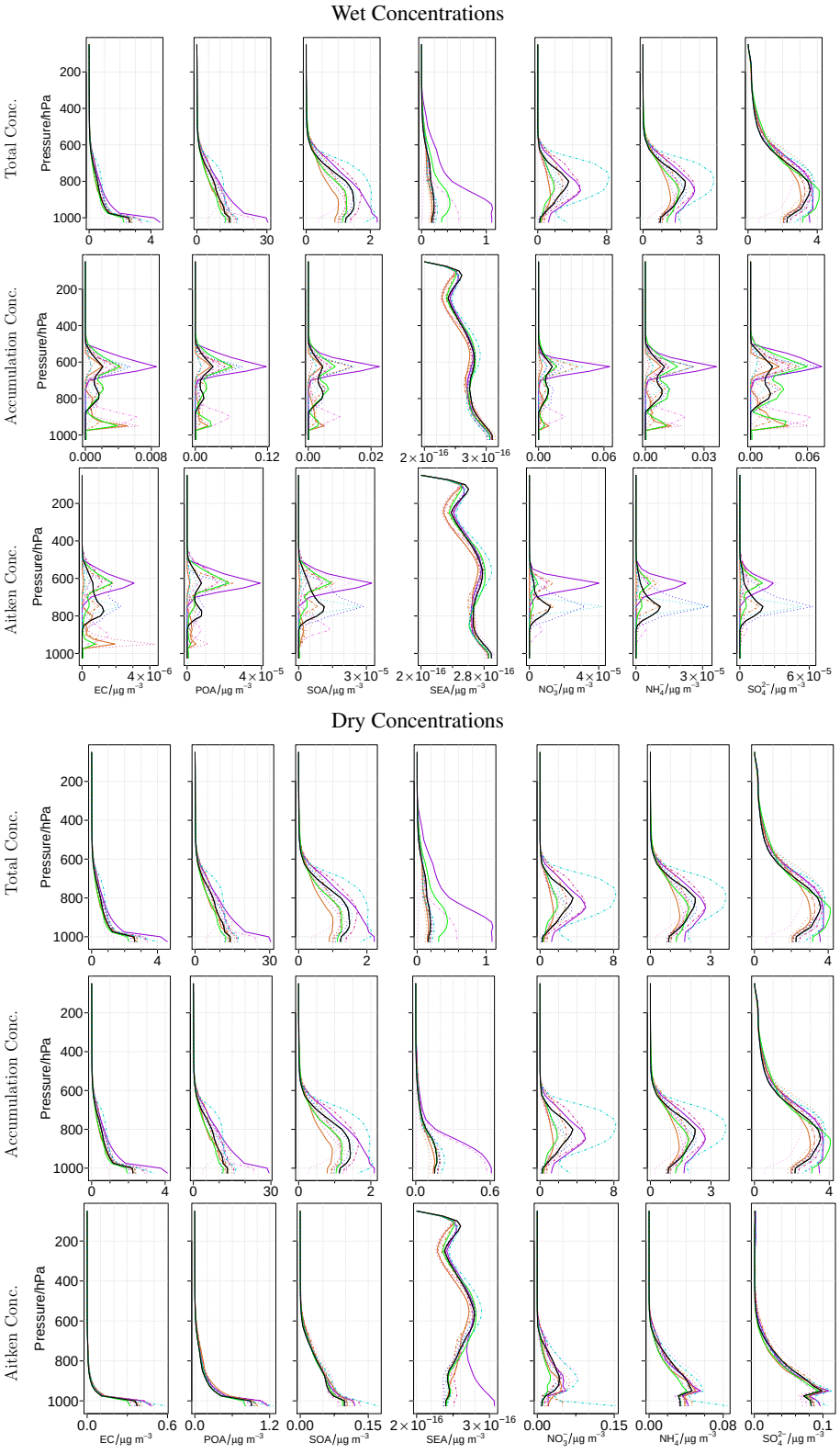

Figure 9. As Figure 8 but for wet (top) and dry (bottom) concentrations.