Correction of the uncertainties on experimental $K_{p,i}$

The experimental partitioning coefficient of a compound i is given by the following equation:

$$K_{p,i} = \frac{P_i}{G_i M} \qquad\qquad Eq.\ 1$$

where P_i is the mass concentration (ng m^{-3} air) of the compound i in the particle phase, G_i is the mass concentration (ng m^{-3} air) of the compound i in the gas phase and M is the mass concentration (μg m^{-3} air) of the total sorbing particle phase (total aerosols mass).

In the first submitted manuscript (published in AMTD) the uncertainties related to experimentally determined $K_{p,i}$ were calculated by using the following equation:

$$\frac{\Delta K_{p,i}}{K_{p,i}} = \frac{\Delta F_i}{F_i} + \frac{\Delta A_i}{A_i} + \frac{\Delta TSP}{TSP} \qquad\qquad Eq.\ 2$$

However, the values of ΔF_i and ΔA_i arose from the statistical Student t-test applied to the constructed calibration curves (at a confidence level of 95 %). ΔTSP also arose from a statistical test applied to the TEOM measures and corresponds to a standard error deviation. As a consequence, the above Equation 2 cannot be used for the uncertainty estimations.
In this case, the uncertainties on $K_{p,i}$ must be calculated by using the Equation 3:

$$\left(\frac{\Delta K_{p,i}}{K_{p,i}}\right)^2 = \left(\frac{\Delta F_i}{F_i}\right)^2 + \left(\frac{\Delta A_i}{A_i}\right)^2 + \left(\frac{\Delta TSP}{TSP}\right)^2 \qquad\qquad Eq.\ 3$$

Uncertainty values given in Table 9 were thereby updated.