Fig. S1. The location of the observatory

Back-trajectory calculation

To elucidate the air masses origin during the cloud formation under polluted conditions, the 72-hour backward trajectories arriving at Mt. Daming site were calculated for a cloud process on May 8, terminating at the height of 2000 m above ground level. The back-trajectories are calculated by applying the HYSPLIT 4 model (Hybrid Single Particle Lagrangian Integrated Trajectory) and using the NCEP GDAS (Global Data Assimilation System) data with a spatial resolution of 1° ×1° (Draxler and Hess, 1998).
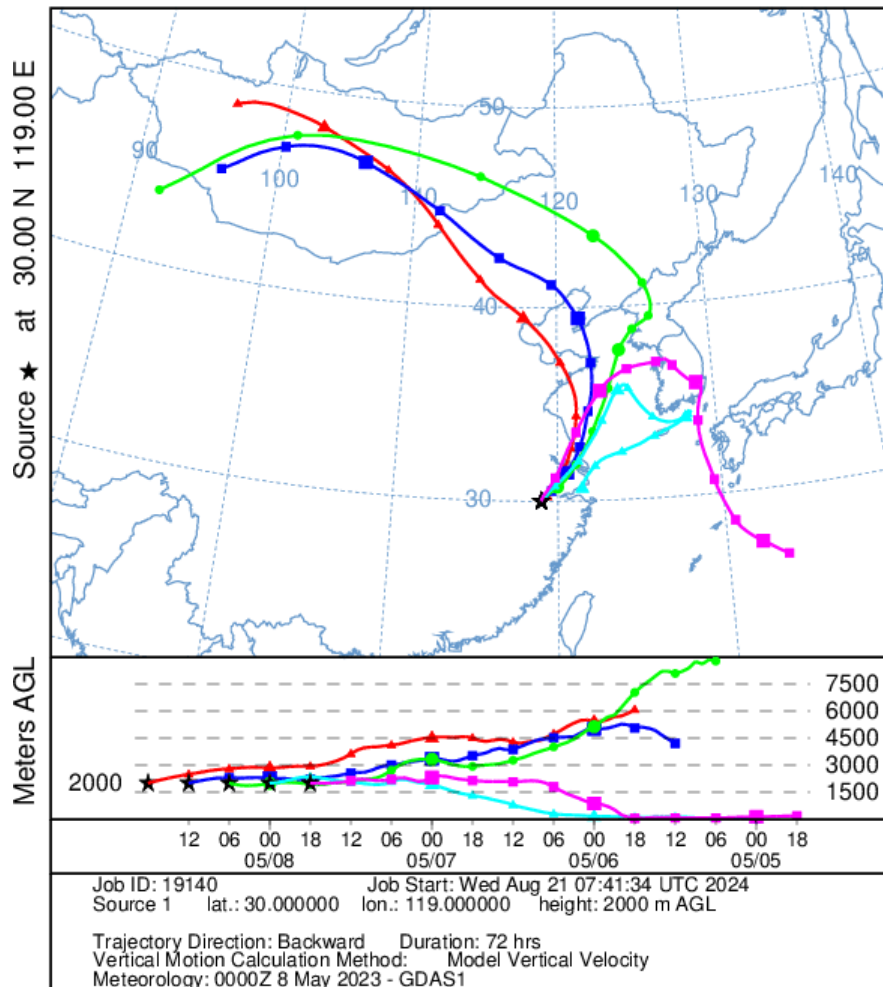
Fig. S2 The back trajectories arriving at Mt. Daming on May 8th, with the terminal height of 2000 m above ground level.

Draxler, R.R., Hess, G.D., 1998. An overview of the HYSPLIT_4 modelling system of trajectories, dispersion, and deposition. Aust. Meteor. Mag., 47, 295-308.