

## Is rainfall a good solution for anthropogenic pollution?

RAE-GYUNG HA<sup>1</sup> AND YONGJAE YU<sup>2</sup>

<sup>1</sup>Chungnam National University, Daejeon, Korea  
raegyung@cnu.ac.kr

<sup>2</sup>Chungnam National University, Daejeon, Korea  
yongjaeyu@cnu.ac.kr

We separated dust particles from the mesh-filtered sets on rainy days (daily precipitation > 10 mm), non-rainy days, and heavy dust storm days. On microscopic examination, we observed carbon-bearing anthropogenic particles, (carbon-touched) iron-oxide, iron-sulfide, and various silicates including quartz and feldspar. The lowest pH was in winter (pH=5.6) and autumn (pH=5.8), and the average highest pH of 6.2 was measured in the spring. During Asian Dust Storm (ADS) events sampled precipitations were very alkaline, pH>6.5, and are due to strong inputs of alkaline species to the precipitation, which transported from China, Mongolia and Siberia. The pH level of ADS and the soil of its origin is 7.9-9.2. ADS events were present in the 7.5 per cent of the total events in Daejeon. PH values of precipitations were similar during ADS from different origin. Electric conductivity (EC) of ADS samples were 70.58  $\mu\text{S}/\text{cm}$ , higher than that of non ADS samples 48.09  $\mu\text{S}/\text{cm}$  reflecting impurities in the samples.