

EGU General Assembly 2021 (Online) Report

Name : 周 瑞辰 (ZHOU Ruichen)

Affiliation : Graduated school of "Environmental studies"

Laboratory of Atmospheric Chemistry Group (Grade D3)

Duration of the stay : 2021/04/19~2021/04/30

The European geoscience union (EGU) general assembly is one of the largest conference in geoscience research. Although it was hold in online form this year due to the inconvenient traveling situation worldwide, there are more than 18000 participates joined this conference. I am glad to be one of them by the support from CICR, ISEE. In the atmospheric chemistry and physics section, I gave a presentation titled "Hygroscopicity of HULIS in urban aerosol and its relationship with sources".

In my presentation, I presented the measurement data of the hygroscopicity of humic-like substances (HULIS), a ubiquitous mixture of water-soluble organic matter. The hygroscopicity of HULIS (K_{HULIS}) in one-year samples were analyzed. We found the hygroscopicity of HULIS correlated positively with the O/C ratios. Comparison of K_{HULIS} value with the source information of HULIS from our former study showed that K_{HULIS} correlated positively with more-oxidized oxygenated organic aerosol (MO-OOA) and less-oxidized OOA (LO-OOA), and correlated negatively with cooking-like OA (COA) and biomass burning OA (BBOA). The relationship between the hygroscopicity parameter and sources was further quantitatively resolved using multi-liner regression analysis. This study provide a promising way to parameterize the hygroscopicity of organic aerosol.

The EGU21 was hold online this year, researchers may not have enough time and space to communicate as compared with the conference in face-to-face. And the meeting in second week has been disturbed by some technical issue. However, the organizer solved the problem very soon and gave the supports as soon as possible. They also provided many tools for participate to communicate like café break time. They try to arrange

the meeting time more flexible that researchers around the world could join the meeting more convenient. I have chance to discuss with others in my research field and learn some studies that I interested. Finally, I would like to thank CICR, ISEE for supporting me to join this conference, it is a unforgettable experience.

<Supervisor's name>

持田 陸宏 (MOCHIDA Michihiro)