

Atmos. Chem. Phys. Discuss., referee comment RC3 https://doi.org/10.5194/acp-2021-851-RC3, 2021 © Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.

Comment on acp-2021-851

Anonymous Referee #3

Referee comment on "Interannual variability of terpenoid emissions in an alpine city" by Lisa Kaser et al., Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2021-851-RC3, 2021

In general, BVOC flux observations are a rare commodity. Even the limited observational datasets are mostly limited to forest environments. Kaser et al. present a city scale BVOC emissions from managed vegetation. They compared differences in BVOC emissions such as isoprene, monoterpenes, and sesquiterpenes from two years illustrating substantial differences in isoprene emissions but not monoterpene and sesquiterpene emissions. They have presented a thorough discussion for the potential causes. The discussion is particuarly insightful to further explore the roles of managed vegetations in urban environments in local air quality. In summary, this manuscript is well written and would contribute to expand our knowledge in the atmospheric chemistry community. However, I would like to suggest a further detailed discussion on the differences in flux foot prints between 2015 and 2018 and their roles in differences in isoprene flux. In the 2015 footprint, a green space to the Southeast of the observational site (Figure 1) was exlcusively included and its potential role to the differences in isoprene emission could be highly insightful.