



EGUsphere, community comment CC1  
<https://doi.org/10.5194/egusphere-2022-783-CC1>, 2022  
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## **Comment on egusphere-2022-783**

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Community comment on "A novel analytical method to detect Ozone depleting substances and Fluorine-containing greenhouse gases in the atmosphere" by Shan Danying et al., EGU sphere, <https://doi.org/10.5194/egusphere-2022-783-CC1>, 2022

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The authors describe a new analytic system to measure a range of ODSs and synthetic GHGs in atmospheric samples. Analytical systems to measure atmospheric abundances with high precision, accuracy and, most importantly, long-term stability are one key component to determine emissions of these compounds to the atmosphere. While I will not review the whole manuscript here, I would like to point out that the authors seem to be confusing accuracy and precisions at times. For example, in Section 3.1, the authors talk about high-precision monitoring, but then cite Table 4, which has a header stating "... test accuracy ...". It should be noted that typical precisions achieved by Medusa systems are better for many compounds than what is stated in Table 4 by the authors for Medusa systems. The authors should therefore revisit Miller et al., 2008 and Prinn et al. (Earth Syst. Sci. Data, 10(2), 985-1018, 10.5194/essd-10-985-2018, 2018), where typical precisions for Medusa systems are given, and update Table 4 accordingly.