Data management plan guidance

1. **Archival of processed chamber data in public repositories:** All processed chamber data collected as part of this proposal will be archived on the discipline-specific ICARUS Database for atmospheric chemistry that was developed with support from NSF. The data intake and access portals are available at https://icarus.ucdavis.edu. The PI's lab will have an ICARUS website profile that describes the chamber(s) and all of the experimental protocols, including wall loss characterization, light flux characterization, cleaning procedures, data processing and correction procedures, and other methods. Every instrument in the lab will have its own profile on ICARUS, including information on instrument parameters such as flow rate, calibrations procedures, measurement theory, analytical uncertainty, and other documentation. All datasets included in publications, including control datasets, will be available for public download in an ASCII format. Every experimental dataset will be citable with its own persistent DOI. Each experiment is described with ACS-traceable and PubChem-traceable reagents whenever possible, an experimental timeline, estimations of error and description of protocols, experimental goals, and other information to make the data as useful as possible to model mechanism developers and other end-users. In addition to experimental metadata, characterization metadata, chamber metadata, and contact metadata, every dataset will be linked to publication DOIs. Experimental datasets are freely viewable, searchable, and downloadable on the ICARUS website. Each data trace within a dataset is also available for interactive graphing/viewing. Furthermore, the data and metadata of ICARUS will be mirrored for redundancy and greater discoverability, and version-controlled by the GDEX repository at the National Center for Atmospheric Research. ICARUS is also indexed by popular search engines such as Google and Web of Science. For more information about data management of chamber experiments via the ICARUS repository, please reference the ICARUS Overview Paper in ACS Earth and Space Chemistry (2023): dx.doi.org/xxxxxxxxxxxxx.