ANALYTICAL RESOURCES CORE MATERIALS and MOLECULAR ANALYSIS CENTER
DATA MANAGEMENT POLICY – DRAFT

The Analytical Resources Core (ARC) Materials and Molecular Analysis Center (MMA) seeks to provide a data management policy that will provide guidance on the confidentiality, integrity and availability data generated on MMA instruments. It is the explicit responsibility of the research principle investigator to control their data if they wish it to be treated differently than described below.

A. DATA TYPES AND PRODUCTS

Data types include primary and analyzed data files, method files correlated to molecular structure and/or materials characteristics and protocols for standard operating procedures.

B. STANDARDS FOR DATA FORMAT

Data format includes instrument output in raw and processed data formats specific to the vendor and type of instrument.

C. ACCESS TO DATA AND DATA SHARING PRACTICES AND POLICIES

Data generated on MMA instruments will be accessible to the generating user and research PI via the instrument and/or workstation computers in the MMA lab. The data sharing practices and policies of the research PI will apply to data files. It is the responsibility of the PI to have a policy that includes, but is not limited to provisions for the protection of privacy, confidentiality, intellectual property, and national security. Requests to the MMA for instrument data will be directed to the research project PI, and the MMA will assist in data delivery when agreed upon and as needed. The creation of a public database with MMA data, or submission of data to software repositories by MMA scientists will be with the express consent of the research PI that was responsible for generating the data.

D. DATA USE, AUTHORSHIP and ACKNOWLEDGEMENT

Publications containing data produced by the MMA should acknowledge the facility and the staff scientist(s) responsible for generating the data. When MMA scientists have participated in experimental design, method development, non-standard data processing, interpretation and/or the publication process, co-authorship may be warranted and is at the discretion and mutual agreement of the MMA staff scientist and facility user.

E. RE-USE, RE-DISTRIBUTION AND PRODUCTION OF DERIVATIVES

Re-use, re-distribution and the production of derivatives from MMA generated data will be at the discretion of, and follow the policies of the research PI.

F. ARCHIVING OF DATA

Data generated on MMA instruments are organized by research PI lab, and for LAN computers are physically backed up one of several ways. In the X-ray and Materials Labs backups are made daily, off-site, through the CSU's Academic Computing and Networking Services Rstor (Research Data Storage) program. RStor is a scale-out network-attached storage platform by Dell EMC, called Isilon, which provides high-volume, scalable storage of unstructured data for research needs. In the Mass Spectrometry Laboratory instrument files are backed up as they are generated to an ARC-MMA Google Drive account. Data located on Rstor or Google Drive will be accessible on instrument and workstation computers in the MMA via the LAN or cloud-based servers. Instrument data will be maintained on Google Drive and Rstor as space allows for up to 4 years from the date of generation. Data in the NMR and Optical Spectroscopy Labs are periodically backed up to physical drives.

Data backed up in the cloud or LAN-based systems older than 4 years will be transferred to a locally stored physical drive. The MMA will maintain archive copies of instrument data, on the physical drives, but does not guarantee functionality or compatibility of archived files. It is the express responsibility of the research PI to transfer and ensure data are in a useable format following acquisition. Data that are deemed confidential or sensitive in nature can be removed from the instrument computer by the research PI or user and copies of those files will not be maintained in the archive. The MMA does not guarantee the files can be permanently removed from the instrument hard-drives or backup systems.