**Data Management Plan**

**Data generated in the course of the proposed research.** The data that will be collected in this work are primarily computer files containing the numerical results of measurements performed on fluorimeters, potentiostats, FT-IR-ATR, NMR, MS and UV-Vis spectrophotometers and processed analysis of same. Some of these are simple X–Y measurements, such as absorbance vs. wavelength. The raw data will generally be in the form of tab-delimited text files. Metadata will be recorded as header lines in the text files and will include, for example, sample name, sample description, and any other important parameters of the measurement. Analyzed data will be in the form of spreadsheets and graphs generated in Excel and Origin, respectively.

**How data will be preserved.** Details of how a sample was prepared will be recorded in dated laboratory notebooks. Most samples will be organic compounds or films deposited on glass. Every such sample will have a unique identifier inscribed in the glass, recorded in the appropriate laboratory notebook, and recorded as the sample name in the computerized measurement metadata. The data will be secured through multiply redundant backups. Data will be stored on the computer on which the measurement was made. In addition, copies will be maintained on two computers in different locations (in the RU-Newark and RU-New Brunswick campuses, about 30 miles apart), each of which is equipped with storage systems. Data shall be retained for a minimum of three years after the completion of the project or after the dissemination of results, whichever is longer, in keeping with sponsor policies.

**How data will be shared.** Data sharing shall be arranged by contact with the PI. Data shall be made available immediately following publication. The original laboratory notebooks will be retained by the PI following the departure of laboratory personnel and stored in a locked office. The most relevant data will be shared in publications, including Supporting Information files that are published online. Other forms of data sharing will include poster presentations at meetings and talks.

**Confidentiality, personal privacy, other issues.** As there is no human or animal experimentation in this work, no ethical issues or confidentiality issues are anticipated.

**Data Archiving and Management Resources at Rutgers Newark** **and New Brunswick.** Resources are available to the PIs for data archiving and storage (<https://data.rutgers.edu/Home/Plans>):

(a) Rutgers University Libraries Community Repository (RUCORE) offers a repository of digital research and educational materials created and used by the University community and its strategic collaborators. <https://www.libraries.rutgers.edu/services-for-researchers/data-services>

(b) The Rutgers University Research Data Repository has been developed to be a streamlined resource to allow researchers to upload their archival research data sets along with textual descriptive information such as the software used, file attributes and information about data variables. This service is available now for data archival. The basic service it provides is a way to upload a file of any type (e.g., a compressed archive) and receive a permanent URL that may be included in a publication or given to others, such as **http://data.rutgers.edu/Project-5**. The data stored here is centrally maintained and backed up.

(c) Rutgers Box with unlimited data storage is available to the PIs. This is a cloud-based file storage application where RU faculty and students can securely store, manage and share digital files.