Facilities and Other Resources (Gibb, Department of Chemistry, Tulane University)

Laboratory: The group has two laboratories in Percival Stern Hall (each 900 sq. ft. and furnished with 4 fume hoods) located adjacent to the Gibb's office. In addition, Gibb has a laboratory in the new Donna and Paul Flower Hall for Research and Innovation adjacent to Stern Hall. This laboratory is approximately 1200 sq. ft. and is equipped with four fume hoods. All of these spaces are new (2012+), contemporary space for organic synthesis and physical organic studies. Major/specialized equipment for these laboratories include: two Isothermal Titration Calorimeters, Dynamic Light Scattering/Zeta-Sizer, a micro-well plate reader (UV-Vis/ Fluorescence), UV-visible spectrometer, an HPLC, and an osmometer. Minor/general equipment for the laboratories include: automated flash chromatographic system for organic mobile phases, refrigerators, drying ovens, rotary evaporators, balances, ultrasound baths, vacuum manifolds, glassware (for reactions and chromatography), and hot plates.

Computer: In his office Gibb has one portable MacBook Pro laptop with 15" Retina display (2.6 GHz Intel Core i7, with 16 GB RAM, and Mac OSX version 10.10.5 operating system) and related peripherals for: viewing (27 inch Apple LCD monitor), printing (color, HP Laserjet Pro), scanning and data backup. The computer has the requisite software installed (such as Microsoft Office (Word, Excel, PowerPoint), Key Note, ChemDraw, Adobe Acrobat Professional, Adobe Photoshop, and Adobe Illustrator. In addition to the five laboratory computers dedicated to instruments, the labs are also equipped with three high-end (Apple) desktop computers. The group uses an Electronic Laboratory Notebook (ELN) system (iLabber from Biovia) for data storage, and a DropBox folder for rapid movement of documents and files within the group. Gibb and Department of Chemistry pays for licenses for software (e.g., Mnova from Mestrelab Research). Additionally, the Department maintains a computer coordinator who assists with all information technology-related needs.

Office: The research space in Percival Stern Hall includes two offices (160 sq. ft. each), group conference room (350 sq. ft.), and a student workroom (140 sq. ft.) directly adjacent to the laboratories.

General: The general support structure of the Department of Chemistry includes an electronic shop, machine shop, as well as electronic and NMR technicians. Comprehensive secretarial services are also available. A comprehensive library is available for the group, the facility of which includes on-line access to SciFinder and other science search engines.

Equipment: Major/specialized equipment for the laboratory includes: two Isothermal Titration Calorimeters, a Dynamic Light Scattering/Zeta-Sizer, a micro-well plate reader (UV/Vis/Fluorescence), UV-visible spectrometer, an HPLC, and an osmometer. Minor/general equipment for the laboratories include: an automated flash chromatography system (organic mobile phase), refrigerators, a lyophilizer, drying ovens, rotary evaporators, balances, ultrasound baths, vacuum manifolds, glassware (for reactions and chromatography), and hot plates.

Department Equipment: The group has access to Departmental equipment including: NMR spectrometers (400, 300 MHz, and 300 MHz solid-state), mass spectrometers (MALDI-TOF-MS, MicroTOF ESI-MS and high res. MALDI-TOF), GC-MS (2), X-ray diffractometers (2), HPLCs (3), gas chromatogram (semi-preparative), UV-vis spectrophotometers (3), spectrofluorometers (2), IR spectrometers (3, including 1 FT Raman), and inert atmosphere equipment (3 glove boxes).

Coordinated Instrument Center of Tulane University: The group also has access to the Tulane Coordinated Instrumentation Facility (CIF). Instruments at the CIF pertinent to this proposal include: NMR spectrometer (500 MHz), elemental analyzer, Inductively Coupled Plasma MS, and Gas Chromatography MS.