

INDUSTRY DAY 2009 NON-IT SUPPLY & EQUIPMENT

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Non-IT Supply and Equipment Team Purchases

- ▣ Laboratory equipment, including new , refurbished, upgrades
- ▣ Services related to laboratory equipment (repair, maintenance)
- ▣ Gases (standard & specialty) & chemicals
- ▣ Office supplies, laboratory supplies
- ▣ Vehicle lease or purchase
- ▣ Furniture

The Recovery Act & the Equipment Team

- ▣ Requirements are in process;
- ▣ Posted publicly on www.fedbizopps.gov
- ▣ Requests for quotations are competitive
- ▣ Different types of equipment are being purchased

Current Recovery Act Projects on the Equipment Team

- ▣ High Spectral Resolution, Imaging, Ultrahigh Vacuum X-Ray Photoelectron Spectroscopy (XPS) System
- ▣ Matched Set of Stainless Steel Large Mass Standards
- ▣ Tensile Test Machine
- ▣ Dry Dilution Refrigerators
- ▣ Computer Numerically Controlled (CNC) Horizontal/Vertical Milling Machine
- ▣ 5-Axis CNC Machining Center
- ▣ CNC Long-Bed and Tool Room Lathe
- ▣ CNC Micro-Machining Center

Next Phase Recovery Act Projects

The next phase of Recovery Act projects are estimated to begin in the first quarter of Fiscal Year 2010.

Equipment has been forecasted to be purchased in the next phase.

Silicon Dioxide Deep Reactive Ion Etcher

- ▣ Being purchased for the NIST/Precision Measurement Laboratory in Boulder, CO
- ▣ Wafer etching tool used to cut very precise and very deep structures into quartz and glass wafers
- ▣ Also used to pattern thin films of silicon dioxide
- ▣ System uses a very high power microwave plasma and special etch gases to do the etching
- ▣ These structures will be used in microelectromechanical devices and in basic thin film superconducting integrated circuit fabrication

Multi-Analysis System

- ▣ For use by the NIST/Center for Nanoscale Science and Technology (CNST), Gaithersburg Campus
- ▣ This system will enable a comprehensive nanoscale analysis of materials transformations at interfaces with extensive nanoscale structure such as used for photoanodes, supercapacitors, battery electrodes, hydrogen storage materials and solar cells.

Silicon Processing Furnaces

- ▣ Being purchased for the NIST/Precision Measurement Laboratory in Boulder, CO
- ▣ This system includes 8 different furnace tubes for 8 different processors and associated gas delivery, pumping, and exhaust abatement equipment
- ▣ These are high temperature (up to 1200 °C) controlled atmosphere furnaces used for some of the basic processes to make electronic devices from silicon wafers
- ▣ The furnaces will allow NIST to grow thin layers of silicon dioxide and silicon nitride and perform wafer doping for the formation of resistor and transistor structures
- ▣ These wafer coatings form the basic building blocks of many microelectromechanical systems

Clinical PET-CT Scanner

- ▣ Positron Emission Tomography – Computed Tomography (PET-CT) Scanner including image analysis workstations
- ▣ For use by the NIST/Ionizing Radiation Division, Gaithersburg Campus
- ▣ Increase the accuracy and consistency of PET imaging data, thereby helping in faster drug development and increased quality of patient care

Molecular Beam Epitaxy System

- ▣ Being purchased for the Atomic Physics Division, NIST Gaithersburg Campus
- ▣ Used to make varied semiconductor structures for NIST's semiconductor quantum optics experiments
- ▣ The system must be able to be expanded and completely computer controlled

Times are Busy

- ▣ There are many opportunities for all business sizes
- ▣ Keep watch on FedBizOpps.gov for prime and subcontracting opportunities
- ▣ If you are not sure, ask questions

QUESTIONS