SPECIFICATIONS

1.0 Specifications Description:

Dynamic Vapor Sorption Analyzer

Quantity: 1

Unit Type: Each

Minimum Requirements:

- A dynamic water vapor analyzer is required for the measurement of vapor sorption characteristics for scientific samples (for example, cotton byproduct-based biocomposite materials)
- The instrument should be able to provide humidity generation Range and accuracy of 0% to 98% (±0.5%) RH for 5°C to 60°C, and 0% to 85% (±1%) RH for 60°C to 85°C.
- The instrument should be able to measure sorption and desorption isotherms over a broad range of humilities and temperatures.
- The instrument must come with UltraBalance Low Mass Assy *with capacity of 1000mg and dynamic range ±150mg.*
- Instrument must include a system to provide a controlled and stable temperature environment for experiments in addition to providing anti-condensation protection.
- The control temperature range should be 5°C to 85°C with control accuracy of ±0.2°C.
- Instrument must include Mass flow controllers (MFCs) used to control and measure flow rates with high turn down ratio, control precision, and high long-term stability.
- Instrument must come with Stand and Vapor Mixing Manifold with Independent sample and reference chambers.
- Instrument purchase must include Computer Kit with *All Input/Output Cards Installed and Configured.*
- Instrument purchase must include the analyzer Control software which provide a complete system control, allows user to design, edit and run automatic or manual vapor sorption experiments.
- Instrument purchase must include installation and operation training, with all necessary consumables for operation

2.0 Place of Delivery

USDA ARS Southern Regional Research Center (SRRC)
ATTN: Stephen Rogers
1100 Allen Toussaint Blvd
New Orleans, LA 70124

3.0 Delivery Schedule

Item	QTY	Unit	Place of Delivery	Delivery Date
Dynamic Vapor Sorption Analyzer	1	Each	USDA ARS SRRC	10 weeks

4.0 Delivery Point of Contact

Storeroom staff for building: [redacted]
Technical contact: [redacted]
Additional contact: [redacted]

5.0 Additional Requirements

- Instrument purchase must include warranty and/or service plan