June 14, 2012: Angstrom Engineering's newly launched Low Pressure CVD system provides you with the required capabilities to take your graphene and carbon nanotube (CNT) research to the next level.

The Angstrom LPCVD boasts a rich and powerful feature list including:

- Uniform temperature control from room temperature to 1100ºC
- Very fast heat up and cool down cycles
- Stable pressure control from 100milliTorr to 500Torr
- Up to 12 mass flow controllers
- Safety focused design with a fully enclosed system cabinet

Angstrom's LPCVD system is designed to meet the high temperature and rapid cooling requirements of graphene and CNT research. To meet these requirements Angstrom engineered a water cooled furnace that can reach 1100ºC yet cool down rapidly. Reaching 1100ºC in 10mins significantly reduces the process time required and cooling below 800ºC in 2mins ensures controlled graphene growth. Various chamber tube sizes are available between ø2in and ø8in allowing processing of single small samples up to batches of 6in wafers.

Graphene is a 2D carbon crystal, a single sheet of graphite and has shown potential as a material for thin film and flexible electronics. Some important properties of graphene are its transparency, flexibility and very good electrical conductivity making it a strong candidate as a TCO layer in many devices.

To meet the needs of the growing research market for carbon nanotubes, graphene and other 2D crystals Angstrom is offering a system which provides precise process control & process flexibility along with a history of considering user safety as paramount. A complete interlock system protects users from the extreme temperatures, process gases, and high voltages present in this type of equipment. In the event of a PC to PLC disconnect a heartbeat sensor will ensure the system is brought to a safe state.

The fully automated process control system allows users to build, store and execute complex recipes up to 50 steps using a 24in touch screen interface. Data logs are stored for each process and can be downloaded via a USB interface to be analyzed using your preferred office software.

Angstrom Engineering Inc. develops deposition equipment solutions for the thin film research community. Founded in 1992, Angstrom has engineered turn-key solutions for many of the world's most recognized research facilities.