**News** **7th January 2009**

## MVS receives orders from Singapore and Utah for cluster tool systems for the development of thin film Si solar cells

**Golden, Colorado, USA:** MVSystems, Inc. is pleased to announce that it has received a cluster tool system order from **Solar Energy Research Institute, National University of Singapore**. The system will be used for advanced amorphous and nano-crystalline Silicon development for solar cells. It has also received an order from **Brigham Young University, Utah** for a high temperature PECVD system for Si nanowire research and development.

MVS is currently building cluster tools (rigid and flexible substrates **using reel to reel cassette** approach) systems for **The University of Toledo, Ohio, The University of Stuttgart, Germany** and **The University of Toronto, Canada.**

MVS has recently shipped systems to **California Institute of Technology** and for **National Renewable Energy Laboratory, Golden, Colorado, London Nanotechnology Center, University College London (England)** and **Sirica Corporation, (Israel).**

MVS is also conducting R & D in memory devices, solar cells and solar to hydrogen conversion using amorphous silicon, for various entities, including projects sponsored by the **US Department of Energy** and industry.

MVS manufactures advanced **Cluster Tool** systems which allow integration of different process modules such as **PECVD, sputtering, Hot Wire CVD, rapid anneal etc.** The process modules are stationed around a central evacuated isolation and transfer zone (ITZ): a computerized robotic arm, situated within the ITZ, inserts and extracts the substrates from the process chambers. This versatile configuration permits the deposition of multi-layers in any sequence, thus allowing the fabrication of advanced electronic device structures, such as solar cells, thin film transistors, sensor arrays, etc.

MVS's patented (US patent number:6,258,408 B1) **Reel to Reel Cluster Tool** involves the use of a cassette, which houses a flexible material and the design enables elimination of cross contamination in the fabrication of advanced devices (solar cells or thin film transistors) on flexible substrates. The system also allows the use of planar substrates.

MVSystems, Inc., a US based company, was founded by the leading authorities in the thin film semiconductor area. They have pioneered the expanding and versatile Amorphous Silicon technology from 1970 onwards. The principals involved have a long history of PECVD equipment development for research and production. MVS has delivered in excess of 70 systems and are located in 20 countries.

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