News **4th May 2010**

MVS receives a Cluster Tool order for thin film silicon solar cell development from Tian Wei Solar Films Co. Ltd., China.

Golden, Colorado, USA: MVSystems, Inc. is pleased to announce that it has received a Cluster Tool system order from Tian Wei Solar Films Co. Ltd., China. The system (consisting of many PECVD and sputtering process chambers) will be used for development of solar cells using amorphous and nano-crystalline Silicon materials. Previously, MVS installed a similar sophisticated Cluster Tool at **Suntech Power, Wuxi, China.**

Over the last few months, MVS has installed Cluster Tools (rigid and flexible substrates using reel to reel cassette approach) systems for **The University of Toledo, Ohio, The University of Stuttgart, Germany.** In addition, it has installed a Cluster Tool for rigid substrates (size: 30cm x40cm) at **Solar Energy Research Institute Singapore,** a prototype production line for coating wafers with thin film Si for **Twin Creeks Technologies, USA** and high temperature (~1000C) PECVD system for **Brigham Young University, Utah**.

MVS is also conducting R & D in thin film Si solar cells and solar to hydrogen conversion using amorphous silicon sponsored by the **US Department of Energy, National Science Foundation** and industry.

MVS manufactures advanced **Cluster Tool** systems which allow integration of different process modules such as **PECVD (fixed at 13.56MHz, pulsed, VHF), 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 23 countries.

MVSystems Inc. 500 Corporate Circle, Unit L, • Golden, Colorado 80401•USA
Phone: (303) 271-9907 Fax: (303) 271-9771 E-mail: ArunMadan@aol.com or amadan@mvsystemsinc.com