

NEWS RELEASE

Tianyu Semiconductor Adds Additional Power+Energy Hydrogen Purifier for Silicon Carbide Epi Expansion

P+E palladium membrane purifiers provide ultra high-purity hydrogen to support Tianyu's increased production in China

September 13, 2012, Ivyland, PA - [Power & Energy Inc.](#) (P+E), a manufacturer of micro-channel hydrogen gas purifiers, has provided a second hydrogen purifier to Dongguan Tianyu Semiconductor Technology Co. Ltd. The purifier is installed to support expansion at Tianyu's facility in Dongguan City, Guangdong province, China.

According to Sun Guosheng, a researcher at Tianyu, "We have seen excellent results from the Power+Energy hydrogen purifier for our Aixtron silicon carbide (SiC) reactors. We are pleased to add another purifier for our capacity expansion.

The compact [9000C Series](#) purifier purifies hydrogen used in the Aixtron MOCVD epitaxial growth process for Silicon Carbide wafers. Oxygen, moisture and nitrogen contamination must be completely eliminated to parts-per-billion levels in SiC growth processes.

The P+E 9000C purifier uses patented micro-channel palladium membrane technology to remove all impurities to parts-per-trillion levels. The 9000C provides a durable, production-worthy hydrogen purifier that supports any flow rate and any inlet gas source quality. The compact design can be wall-mounted to provide ultra-high purity (UHP) hydrogen for MOCVD epitaxial processes.

According to Stuart Bestrom, "Tianyu has an impressive facility and they are poised for rapid growth as the first China-based supplier of SiC epi wafers. We are pleased to continue supporting this expansion. P+E has been supporting customers in SiC processing for over 12 years, including many leading suppliers of SiC materials and epi wafers. P+E hydrogen gas purifiers are critical to the rapidly expanding high-efficiency power devices industry, whether SiC or GaN. P+E's advanced micro-channel Pd membrane technology, allow our customers to continue to use the same technology in high volume production, regardless of source gas quality."

Tianyu produces the third generation wide bandgap 4H-SiC epi wafers including 2, 3 and 4 inches and 6 inch in the near future. They are located in the Songshan Lake National High-tech Industrial Zone in Dongguan City, Guangdong Province. They are the first company to product SiC epi wafers in China.

About Power+Energy

Power & Energy Inc. provides the purest hydrogen on the planet with patented hydrogen purification and separation technologies. Power+Energy's Micro-Channel palladium-alloy hydrogen purifiers are used for point-of-use and bulk gas purification. P+E gas purifiers purify compressed or liquid hydrogen to nine-9's purity for semiconductor fabrication processes, including MOCVD for LEDs, PV solar cells, power devices and LCD's.

Power & Energy, Inc. is headquartered in Pennsylvania, USA. Established in 1993, the company's mission is to enable the hydrogen economy and promote energy efficiency through the application of micro-channel technologies. The company provides a full range of micro-channel hydrogen purifiers to ultra-high purity users across the U.S., Asia and Europe.

For further information, please visit www.powerandenergy.com.

CONTACT:

Albert Stubbmann
Power & Energy, Inc.
106 Railroad Drive
Ivyland, PA 18974-1449
USA

PHONE. 215-942-4600 ext 17
FAX. 215-942-9300
EMAIL: al.s@powerandenergy.com
WEB: <http://www.powerandenergy.com>



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