

# A thank you to our WOCSEMMAD '06 Supporters...

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**Air Force Office of Scientific Research** - AFOSR manages all basic research conducted by the U.S. Air Force. One of the tools used to accomplish this task is to solicit proposals for research. AFOSR also conducts collegial scientific workshops for the purpose of forming partnerships with in-house and extramural (contractor and grantee) researchers in common areas of research. The Air Force also sponsors research assistantship programs, faculty programs, and graduate school programs.



**Cree, Inc.** - Cree develops and manufactures semiconductor materials and devices based on silicon carbide (SiC), gallium nitride (GaN), and related compounds. The company's products include SiC and GaN wafers and epitaxy sold for production and for use in research and development. Other products are blue, green and ultraviolet (UV) light emitting diodes (LEDs), radio frequency (RF) and microwave devices, power switching devices, and near UV lasers. Targeted applications for these products include solid state illumination, wireless infrastructure, power switching/conditioning, and optical storage.

**Epichem Group** - Founded in 1983, Epichem manufactures a wide range of high purity precursors used across the semiconductor, electronic and optoelectronic industries. With manufacturing and distribution facilities on three continents, Epichem has a global supply network to service all markets from local sites. Epichem's strong R&D background ensures that the product ranges available include chemicals to meet both current and future customer demands. Working with world leading groups, novel materials systems continue to be developed to meet industry roadmaps. Coupled with our innovative precursor delivery and monitoring systems Epichem is acknowledged as at the forefront of precursor technology and a leading provider of comprehensive product supply packages.



**Matheson Tri-Gas, Inc.** - Matheson Tri-Gas, Inc., is a single source provider of specialty gases, bulk gases, gas handling equipment, and high performance purification systems. The Company also provides support services, engineering services, and systems management services to analytical laboratories and semiconductor manufacturers

worldwide. As a member of the Taiyo Nippon Sanso Corporation group, Matheson Tri-Gas, Inc., is part of a worldwide industrial gas organization focusing on being the single source provider for global customer requirements.

**Northrop Grumman Space Technology** - Northrop Grumman Space Technology builds advanced space-based systems and is a world leader in millimeter-wave and digital electronics for space applications.





## Thomas Swan Scientific Equipment Ltd. / AIXTRON

- Thomas Swan Scientific Equipment Ltd. (TSSE) is a leading global supplier of MOCVD (Metal Organic Chemical Vapour Deposition) reactors and components to the compound semiconductor industry.

TSSE design and manufacture both production and R&D systems utilising a patented close-coupled showerhead (CCS) and Epison process control technology for the reliable production of uniform, high quality InP, GaAs and GaN based materials. Each system is based on a set of well-established principles and can be custom configured to individual customer needs. Thomas Swan Scientific Equipment is a company that addresses a global market, with more than 240 systems having been supplied throughout the world, including over 140 CCS MOCVD Reactors. / **AIXTRON** - First established in 1983, AIXTRON is now the world's leading manufacturer of state-of-the-art MOCVD



equipment for the production of compound semiconductors. AIXTRON's founding members pioneered the commercial introduction and success of VPE and MOCVD technologies. Since then AIXTRON has played a leading role in the continuing development and success of these technologies. In particular AIXTRON's large-scale Planetary Reactor<sup>®</sup> systems have lead to the worldwide acceptance of CVD technology as both an efficient and valuable production tool. Continuing its focus on greater production efficiency, AIXTRON introduced the first ever CVD system with true cassette-to-cassette automated wafer loading as used in the Silicon industry. AIXTRON's products range from customized production scale CVD systems for over 100 wafers to smaller systems for R&D and small-scale production. Almost 650 AIXTRON systems are installed worldwide and are used for the production of III-V, II-VI and HTSC materials, ferroelectrics, high-k dielectrics, oxides, SiC, SiGe, diamond and other materials. The materials produced are used mainly in opto and microelectronic components such as LEDs, lasers, HEMTs, detectors, HBTs, MESFETs, guided optics and CMOS Gate Stack and integrated capacitor applications. In addition to equipment, AIXTRON also offers a full range of peripheral equipment and services ranging from gas monitoring, exhaust gas treatment and scrubbing to complete gas network and clean-room installation as well as process technology, training, and consultancy.

**Veeco** – Veeco provides the leading MOCVD and MBE platforms for the research, development and high volume manufacture of compound semiconductor materials. Our cluster tool based MBE systems have become the standard within the MBE community. Our innovative TurboDisc<sup>®</sup> tools enable customers to meet the strict requirements of



today's advanced MOCVD device applications, providing excellent uniformity and material quality. With an installed base of more than 700 MOCVD & MBE tools, and an applications lab developing cutting-edge process technology, Veeco is the first choice for compound semiconductor epitaxial equipment.