

For Immediate Release

Robust Metal Precursors Blast Through Recession

Techcet Forecasts \$403M Metal Precursor Market by 2016

Del Mar, CA, July 18: Interconnects will drive the ALD/CVD metal precursor market to \$403M by 2016, according to a new report from Techcet Group, “**High κ and ALD/CVD Metal Precursors, A Semiconductor Materials Report 2010.**” The recent recession notwithstanding, 2010 revenues are already expected to exceed 2007 levels by 3%.

The metal precursor market comprises three main segments: interconnects, capacitors and gates. The 2009 market size for CVD/ALD precursors for interconnect applications was approximately \$100M, of which \$83M is WF_6 and TDMAT (Ti) used in established technologies. Organic growth, combined with the introduction of an ALD Cu barrier, will result in a 2016 interconnect metal precursor market of \$303M. The adoption of Ru as the Cu barrier could drive revenues even higher, though it is more likely that ALD Co will replace sputtered Ta/TaN at 22nm and beyond. Co precursor revenues are expected to approach \$16M by 2016, whereas Ru would result in \$54M in precursor revenues if it is the unlikely winner.

Capacitor applications, which include DRAM and other memory devices, make up about 20% of the metal precursor market. High- κ metal gate precursors, still hovering around 1%, will approach 3% in the outlying years with a 145% CAGR. These include both the high- κ gate dielectric and the metal gate itself.

Aluminum oxide is currently being used for high volume production of 90nm and larger technology node memory devices. Hafnium oxide is being introduced in some memory devices calling for high- κ capacitor dielectrics. At the leading edge, hafnium is already being replaced by zirconium oxide, as several of the memory manufactures have found that zirconium maintains a higher dielectric constant.

In addition to market analysis, process flow details, precursor candidates and critical supply chain issues, the report includes profiles and updates for nine major suppliers of vapor deposition precursors.

Techcet Group, LLC specializes in market analysis and technical trend analysis for the semiconductor, silicon, PV, TFT and related electronics industries. The company has been responsible for producing the International Sematech Critical Material Reports since 2001. Other reports released this quarter include:

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- Quartz
- Gases
- Sputter Targets
- Photoresists and Photoresist Ancillaries
- PV Materials

For additional information about “**High κ and ALD/CVD Metal Precursors, A Semiconductor Materials Report 2010**” and other Techcet reports, contact Lita Shon-Roy, +1-858-259-9077, lshonroy@techcet.com, or visit our website at www.techcet.com.