



Electronics Materials Information

Supply Chain Challenges in \$650M Sputtering Target Market

Tungsten, Cobalt, and Rare Earth Elements in flux

San Diego, CA, September 07, 2018: TECHCET—the advisory services firm providing electronic materials information— announced that the sputtering target market for semiconductor applications is now estimated to reach US\$650 million in 2018, an increase 5.4 percent year-over-year. Volumes are growing in excess of 6 percent year over year, with higher growth in the interconnect metals tungsten, tantalum, and copper. While those metals that support 300mm wafers will have the strongest growth rates, TECHCET also sees stable growth for aluminum and titanium targets to support 200mm wafer fabs making power, analog, and “More-than-Moore” chips. The world-wide semiconductor sputtering target market in 2023 is forecast to be US\$773 million, as detailed in the most recent Critical Materials Report (CMR) on sputter targets.

“Supply chain conditions in the sputtering target market are changing due to business, economic, and political trends occurring globally,” reminded Dr. Dan Tracy, TECHCET senior analyst and lead author of the report. “We’ve seen consolidation in the sputtering target supply chain over the past year, and we describe the market as highly dynamic. Also, for materials with limited sources around the world and complex supply chains, there are concerns about accidentally sourcing possible conflict-materials despite best efforts.”

At the leading-edge of IC fabrication, some sputtering steps will be replaced by atomic-layer deposition (ALD) and chemical vapor deposition (CVD). Deposition technology choices will alter supply-chains and pricing of metals over the forecast period, in particular with tungsten, cobalt, and rare-earth materials. Titanium metal supply remains stable, though growth in the aircraft industry dominates supply/demand trends in this metal market. Tantalum is mainly sourced from lithium mining and tantalum ore could go into surplus in the forecast years due to increased lithium mine production needed for electric vehicle battery demand. TECHET continues to track how tariffs and trade-wars are impacting the global supply chain.

Suppliers covered in this report include: GO Element Corp, General Research Institute for Non-ferrous Metals (GRIKIN), Honeywell Electronic Materials, Konfoong Materials International Co., Ltd. (KFMI), JX Nippon Mining & Metals, Materion Advanced Materials, Praxair Surface Technologies, Tanaka Precious Metals, Tosoh SMD, and Umicore Electro Optic Materials.

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ABOUT TECHCET: TECHCET CA LLC is an advisory service firm focused on process materials supply-chains, electronic materials technology, and materials market analysis for the semiconductor, display, solar/PV, and LED industries. Since 2000, the company has been responsible for producing the SEMATECH Critical Material Reports, covering silicon wafers, semiconductor gases, wet chemicals, CMP consumables, Photoresists, and ALD/CVD Precursors. For additional information about these reports or CMC Fabs membership please contact Diane Scott at info@cmcfabs.org +1-480-332-8336, or go to www.techcet.com or www.cmcfabs.org.