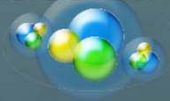


# TECHCET

Electronics Materials Information



# Sputtering Targets

for Semiconductor Manufacturing Applications

*Market & Supply Chain  
Critical Materials Report™*

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TECHCET CA LLC

August 2018

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# 1. RESEARCH METHODOLOGY

-  *TEHCET employs subject matter experts having first-hand experience within the industries, which they analyze. Most of TEHCET's analysts have over 25 years of direct and relevant experience in their field. Our analysts survey the commercial and technical staff of IC manufacturers and their suppliers, and conduct extensive research of literature and commerce statistics to ascertain the current and future market environment and global supply risks. Combining this data with TEHCET's proprietary, quantitative wafer forecast results in a viable long-term market forecast for a variety of process materials.*



# Section 2: Scope & Methodology

# 2. Scope & Methodology

- 🌐 This report provides a detailed look and analysis of the sputter targets market and supply chain as applied to semiconductor device manufacturing. Included are raw material supply chain dynamics and companies, target manufacturing cost considerations, pricing trends, technical trends and market drivers, in addition to market statistics on growth, supplier share, and key supplier profiles. Also included, where appropriate is information on the growing target supply chain in China.
- 🌐 2017 market demand for semiconductor sputtering target materials was compiled from primary and secondary market research. This typically includes surveys of industry experts working in the semiconductor market including target suppliers, end users and OEMs.
- 🌐 Analyst's interpretations and insights are also provided.
  - This is a summary and detailed information is available from Techcet
  - Quarterly updates will be published as key metrics are changing.
- 🌐 All efforts have been taken to separate out semiconductor sputtering target demand from other target applications. Other applications include, but are not limited to, MEMS, FPD and PV.

## 2. Scope & Methodology

- 🌐 Target demand forecast is reported in terms of revenue growth, segmented and modeled by 200mm and 300mm target sizes.
- 🌐 An absolute count of the number of sputtering targets is not included in this analysis for the following reasons:
  - The variety of sputtering target configurations employed by the semiconductor industry (i.e. “standard” planar targets, extended use targets, monolithic targets, and HCM’s)
  - The target utilization (i.e. fraction of materials sputtered from a target) varies based on target configuration and process conditions)
  - The introduction of alloys to improve RC Delay problems , reduce defects and improve electro-migration.

## 2. Scope & Methodology

- Factors effecting the target materials supply chain and price outlooks were analyzed with respect to published geopolitical and global economic forecasts as well as from detailed surveys with raw material suppliers.
- A sputtering target price forecast was developed with respect to the following:
  - Supply chain factors impacting raw material prices
  - Impact of External and Internal Factors and their impact on the cost drivers of sputtering targets
  - Competitive environment among sputtering target suppliers
- The sputtering target market forecast and price trends were derived from TECHCET's proprietary forecast models and validated with interviews from multiple industry experts. forecast models and validated with interviews from multiple industry experts.