

TECHCET

Electronics Materials Information



2023 TECHCET CRITICAL MATERIALS REPORT™

CMP CONSUMABLES – SLURRY and PAD MARKETS

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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.

READER'S NOTE

This report represents the interpretation and analysis of information generally available to the public or released by responsible agencies or individuals. Data was obtained from sources considered reliable. However, accuracy or completeness is not guaranteed.



ANALYST BIOGRAPHY

- Sarah Okada joined TECHCET as a senior market analyst in January 2021
- Ms. Okada has worked in leadership roles in the semiconductor industry for over 25 years focusing on product management, marketing and technical sales of substrate and device manufacturing equipment.
- Ms. Okada started in the semiconductor industry in 1995 in the applications development group at Strasbaugh, a supplier of CMP and grinding equipment.
- In 2013, she was promoted to director of sales and marketing for Strasbaugh where she incorporated marketing and sales best practices to develop a new brand for Strasbaugh and launched a successful new HVM grinding product.
- Ms. Okada was key in the acquisition of Strasbaugh's technology for Revasum in 2016, where she served as VP of marketing and product management and launched the industry's first fully automated SiC substrate polisher.
- Since joining Nova in November 2020, Ms. Okada has been leading work on the SIMS-based METRION platform and was recently promoted to product marketing director
- Ms Okada holds a bachelor's degree in Marketing and Finance from the University of Oregon.



Sarah Okada, Sr. Market Analyst

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SCOPE, PURPOSE AND METHODOLOGY

2.1 SCOPE

- This report covers the CMP Consumables market (specifically CMP slurry and pads) and supply-chain for those consumables used in semiconductor device fabrication. The report contains data and analysis from TECHCET's data base and Sr. Analyst experience, as well as that developed from primary and secondary market research. For more information on TECHCET Critical materials Reports™ please go to <https://TEHCET.com>
- CMP slurries and pads are a critical in semiconductor manufacturing as process integration requires the fabrication of thin and uniformly flat layers to build up device structures across the semiconductor wafers. The number of CMP process steps continue to increase with each generation of new device technology.
- New device technology is characterized by more layers, new materials, tighter process control requirements, and new techniques for advanced packaging. These manufacturing challenges require new developments in CMP slurries and pads.
- This report looks at the market drivers, slurry and pad forecasts by application, market shares, abrasive suppliers, and includes a special focus on advanced packaging.

2.2 PURPOSE

This Critical Materials Report™ (CMR) provides focused information for supply-chain managers, process integration and R&D directors, as well as business development managers, and financial analysts. The report covers information about key suppliers, issues/trends in the material supply chain, estimates on supplier market share, and forecast for the material segments.

2.3 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.

2.4 OVERVIEW OF OTHER TECHCET CMR™ REPORTS

TEHCET produces electronic material supply chain reports each year as one of its functions for the Critical Materials Council. Reports to be published in 2022 can be found at www.techcet.com and are listed in the table below:

TEHCET's Critical Materials Reports™	
1	CMP Consumables (Pads & Slurry)
2	CMP Equipment Ancillaries (Conditioners, Filters, etc.)
3	CVD /ALD Hi K Precursors
4	CVD DIELECTRIC Precursors
5	Equipment Components – Quartz
6	Equipment Components – Silicon
7	Equipment Components – SiC/Ceramics
8	Gases - Electronic Specialty, Bulk & Rare Gases
9	Metal Plating Chemicals
10	Photoresists, Ancillaries & Extension Materials
11	Sputtering Targets
12	Wafers: Silicon, SOI
13	SiC Wafers & Manufacturing
14	Wet Chemicals / Specialty Cleans
15	Special Reports: Impact of US Expansions on Wet Chemicals Supply Chains