

## UNIVERSITY WAFER, INC. ANNOUNCES REVOLUTIONARY HIGH-RESISTIVITY SILICON WAFERS FOR BORON-DOPED DIAMOND MEMBRANES

Float Zone Silicon to Fabricate Diamond Membranes

SOUTH BOSTON, MA, UNITED STATES, June 13, 2023 /EINPresswire.com/ -- University Wafer, Inc., a renowned supplier of semiconductor substrates and services, is pleased to announce the introduction of a breakthrough product in its portfolio: Intrinsic Float Zone (FZ) Silicon Wafers with resistivity greater than 20,000 ohm-cm, purposefully crafted for Boron-Doped Diamond (BDD) membranes that are electrically non-conductive.

In the ever-evolving realm of semiconductor technology, this new product is set to redefine the capabilities of non-conductive diamond membranes, providing increased stability and versatility. The unique properties of these high-resistivity silicon wafers result in a significant enhancement in the performance and reliability of BDD membranes in various applications, including water treatment, sensors, and electronics.

"Introducing our Intrinsic FZ Silicon Wafers with unprecedented resistivity is a testament to University Wafer, Inc.'s commitment towards continuous innovation and addressing the evolving needs of our customers," said Chris Baker, CEO of University Wafer, Inc. "We are confident this product will unlock new potentials for BDD membrane technologies, especially in sectors seeking high-performing, non-conductive materials."

The outstanding resistivity above 20,000 ohm-cm exhibited by these silicon wafers is achieved through the intrinsic float zone process, a method recognized for producing high-purity silicon. This process combined with boron doping - which increases the wafer's resistivity by reducing free carrier concentration - provides BDD membranes with extraordinary electrical properties and the needed non-conductivity.

The increased resistivity in these wafers affords superior performance to BDD membranes, enabling them to withstand higher voltage without the risk of electrical breakdown, thus boosting the longevity of the devices. Additionally, the high-resistivity intrinsic FZ silicon wafers have been found to improve the overall electrochemical stability of BDD membranes, making them more effective in extreme conditions and a wide range of applications.

University Wafer, Inc. is excited to offer these state-of-the-art silicon wafers to industries and research institutions worldwide. The company is optimistic that the introduction of this product will foster innovation in various fields, further propelling advancements in technology.

## About University Wafer, Inc.:

University Wafer, Inc. is an industry leader in providing high-quality semiconductor wafers and substrates, with a wide-ranging portfolio of products. The company prides itself on its commitment to innovation and customer service, delivering top-notch semiconductor materials to a global clientele, encompassing industries, universities, and research institutions.

For more information about University Wafer, Inc. and the Intrinsic Float Zone Silicon Wafers with resistivity greater than 20,000 ohm-cm, please visit <a href="https://www.universitywafer.com/float-zone-silicon-wafers.html">www.universitywafer.com/float-zone-silicon-wafers.html</a> or contact our customer service team.

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