

Abstract Submitted
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A novel technique for cleaning semiconductor wafers using ultrasonic transducer RUGVED NAKADE, RAYLON YOW, TONY SAYKA, DHIRAJ SARDAR, University of Texas at San Antonio — An experiment was designed based on U.S. Patent no. 6,766,813 which describes a process that effectively cleans a semiconductor wafer with the help of ultrasonic vibrations. The semiconductor wafer was freely supported by a hollow cylindrical box made of foam. Two commonly occurring contaminants found on wafers in the industry are silicon and silicon dioxide. Micrometer sizes of these two materials were used to replicate contaminants that commonly occur in the industry. The wafer was then excited with the help of an ultrasonic transducer in the aim of knocking off these contaminants from the surface of the semiconductor wafer. Particle counts were taken with the help of a modified optical microscope before and after applying the ultrasonic vibration in order to determine the effectiveness of this technique.

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