

# **IMPLEMENTATION OF IMAGE ANALYSIS ON COMPARISON OF CAVITATION EROSION DEGRADATION OF MULLITE AND ZIRCON SAMPLES BASED**

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## **Abstract**

Mullite, and zircon are widely used for different applications for refractory materials. In this paper their behavior in conditions of the cavitation erosion was investigated. Cavitation erosion testing was applied using standard the ultrasonic vibratory cavitation set up with stationary specimen. Weight loss as well as image analysis were used for comparison of the different samples to the effects of cavitation. In this paper image analysis was implemented for monitoring degradation level during testing, as well as number of formed pits during testing, and their characterization (average diameter and area). Obtained results were discussed in order to compare and analyze resistance of the different materials (mullite and zircon) to the cavitation erosion, as well as used methodology.

key words: mullite, zircon, cavitation erosion, image analysis, level of degradation