

Review of the Gravitational Effects on Liquid Phase Sintering

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For several decades researchers have employed access to microgravity to address questions on component distortion during liquid phase sintering. Some of the experiments have been just a few seconds of microgravity exposure to a few reaching 10 hours exposure. A few critical points arise from these studies that help improve sintered dimensional control independent of the gravitational conditions. This paper will review the broad range of experiments, key findings, and pathway that arises to design alloys resistant to distortion during sintering densification in a variety of gravitational situations, including Moon, Mars, Microgravity, and Earth.