

Abstract Submitted
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The Effects of Popping Popcorn Under Reduced Pressure¹ PAUL QUINN, AMANDA COOPER, Kutztown University — In our experiments, we model the popping of popcorn as an adiabatic process and develop a process for improving the efficiency of popcorn production. By lowering the pressure of the popcorn during the popping process, we induce an increase in popcorn size, while decreasing the number of remaining unpopped kernels. In this project we run numerous experiments using three of the most common popping devices, a movie popcorn maker, a stove pot, and a microwave. We specifically examine the effects of varying the pressure on total sample size, flake size and waste. An empirical relationship is found between these variables and the pressure.

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