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STATISTICAL ANALYSIS RESULTS OF A VIBRATION EXPERIMENT ON "TAKOYAKI" DOUGH
FOR COOKING IN MICROGRAVITY**Abstract**

Space travel by private companies has finally begun, and the sphere of life for the public is about to expand into space. Therefore, the demand for food that is easy to eat in space, such as street food, is expected to increase. "Takoyaki" is a famous street food in Osaka, Japan. According to an experiment conducted on the International Space Station, cookies took two hours to bake in microgravity. This was thought to be because the convection of heat does not occur easily in microgravity. In our previous study, we reported that heating the "takoyaki" dough while applying vibration can induce forced convection and shorten the heating time. In this study, we investigated the effects of dough viscosity and vibration frequency. We also attempted to analyze the factors that strongly affected the temperature rise of the dough using statistical software and reported the results.