

||||| 特集：落下施設を利用した微小重力実験 |||||
(解説)

落下塔を利用した液体燃料燃焼実験

岡井 敬一

Combustion Experiments of Liquid-Fuel Samples Utilizing Drop-Tower Facilities

Keiichi OKAI

Abstract

This article presents an overview of the utilization of drop tower facilities for liquid-fuel combustion studies. We present examples of experiments on the combustion of cylindrical liquid-fuel samples, interacting combustion of droplet pairs and the control of droplet combustion by acoustic disturbances. The existing drop towers are classified into three basic types. These drop towers are then compared using the results of the different combustion experiments. This article is intended to be a general introduction to drop tower experiments for a scientist.