Several programs for mass production of MOX bulk are ongoing. It produced by microwave heating (MH) exhibits the excellent properties in the fuel manufacturing. One of them is the selection of the vessel configuration for efficient evaporation of large amount of solution. Two types of vessel as shallow and cylindrical, are under examinations. The shallow vessel has the amount of products per batch is rather small. While, the cylindrical vessel is increasing the production capacity per batch, but has flushing the solution by the MH.

The experiment was continued by changing the height and the shape in order to perform an effect evaluation of the size and the shape of vessel.

To obtain the experimental information to clarify the mechanism of the flushing

A visual observation of boiling behavior
The effect evaluation of the size and the shape of vessel
Temperature measurement of water surface

Effect of water depth on the flushing

The flushing happens when it is higher than the vessel of water depth 20 mm, flushing is not observed.

Surface temperature became higher than the saturation temperature when the flushing is observed.