Evening Lecture
Physics of alcohol and Bizen-pottery

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To enjoy sake, beer or wine, choice of containers is a very important factor. Not only the shape but also the material affects the taste and flavor of the drinks.

Bizen-pottery is known as excellent item to make fine bubbles of beer, enrich the taste of sake or whiskey. The pottery is one of the 6 traditional kiln in Japan. It has been produced around Inbe district, Okayama prefecture Japan for more than 1400 years. The characteristic of the Bizen-pottery is a technique called "YAKISHIME" (biscuit ware) to burn at 1,500 degree Celsius in an ascending kiln for one week. Glaze does not be used for the Bizen-pottery. Therefore, the surface of the Bizen-pottery has minute rough structure derived from raw material clay. The surface structure has been thought to bring about creamy bubble of beer, and make whiskey mellow taste.

In this study, we measured the size and number of beer bubbles grown on the surface of the Bizen-pottery and other pottery to confirm the superiority as a container for alcohol drinks. The difference in bubble generation among potteries will be clarified. In addition, the impact of the elementary of the material clay on both bubble generation and taste will be discussed.

keywords alcohol beverages, surface, bubble, Bizen-pottery