

# MS imaging of a frozen fried chicken

using blotting method

The blotting method using DIUTHAME is a pretreatment method that enables MS imaging measurement without thin-sectioning the sample. In this paper, the blotting method was applied to analyze the change over time of a frozen fried chicken. The frozen section was regarded as representing the conditions immediately after cooking, and the component distributions in the frozen fried chicken immediately after cooking and after defrosting were compared.

## Measurement conditions

Measurement mode: Laser pitch 80 µm, positive ion, reflectron mode Sample: Frozen fried chicken



HAMAMATSU HOTON IS OUR BUSINESS

▲ A13331-18-2B (For blotting)

## Method





Slice the sample by cryostat and put it on a glass plate.





Place the DIUTHAME on the frozen section.



Thaw the section using heat from a fingertip.



Place the DIUTHAME on the sample for blotting.



Start measurement after the sample dries.

on the stage.

### Defrosted sample

Results

These results show that

many components were transferred from the fried outer part to the inner meat

by defrosting the frozen

fried chicken. These results suggest that the change over time of a sample could be measured by the blotting method

using DIUTHAME.



Frozen

sample

Defrosted

sample

Defrost the sample in a microwave.



*m/z* 353,

Inosinic acid [M-H<sub>2</sub>O+Na]+

*m/z* 381, Maltose/Sucrose [M+K]\*



Subject to local technical requirements and regulations, availability of products included in this promotional material may vary. Please consult with our sales office! Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. ©2020 Hamamatsu Photonics K.K.

### HAMAMATSU PHOTONICS K.K.

www.hamamatsu.com

HAMAMATSU PHOTONICS K.K., Electron Tube Division 314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205