MALDI*1 imaging on Poropare: Optimizing preparation methods for targeted compounds

*1 Matrix-assisted laser desorption ionization

Measurement challenges

Mass spectrometry imaging without thin sectioning or matrix coating is achieved using Poropare. However, some components cannot be detected using the ionization-assisting layer of Poropare. On the other hand, MALDI is one of the most popular ionization methods for MS imaging, which generally requires thin sectioning.

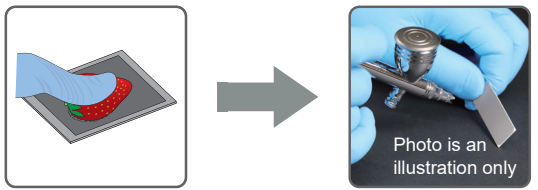
Approach

After components on a strawberry cross-section were transferred onto Poropare, an organic matrix (DHB) was sprayed by airbrush. Mass spectrometry imaging was then performed using a MALDI-TOF instrument.

Benefits from using Poropare

- **Enables MALDI imaging without thin sectioning**
  No significant delocalization due to matrix spraying.
- **Enables various preparation approaches**
  Visualizes the targeted compounds by combining various sampling and ionization methods.

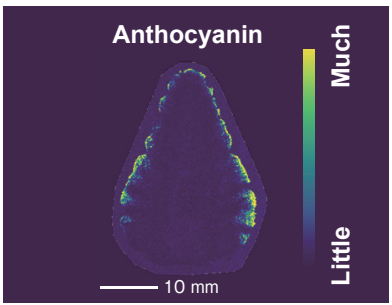
Measurement procedure



Press and transfer the image onto Poropare.

Apply the matrix coating

Insert into the instrument !



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