

# Poropare™

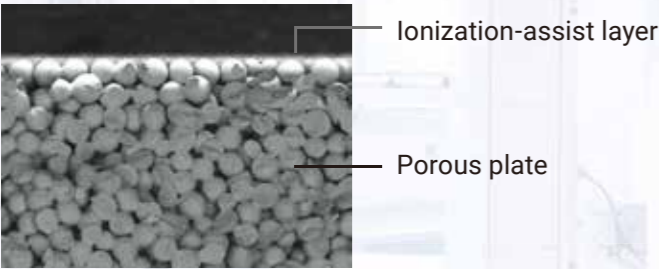
## Transfer plate A15551 series



# Support item that expands the possibilities of mass spectrometry

Transfer plate Poropare realizes laser desorption/ionization mass spectrometry simply by transferring a sample.  
In mass spectrometry imaging, Poropare not only simplifies sample preparation, but also expands a range of applications, providing an analytical experience that is different from the conventional one.

## Basic structure



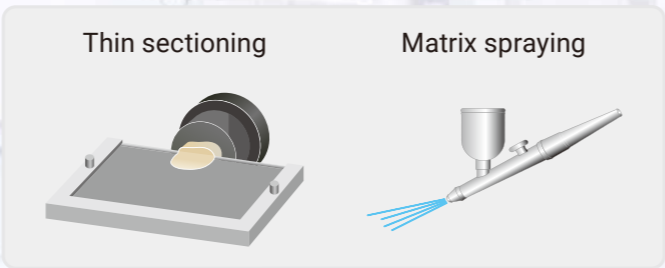
Cross section

Poropare is a porous plate with numerous pores, which enables sampling by taking advantage of its robustness and water absorption properties. In addition, an ionization-assist layer is uniformly formed on its topmost surface, enabling matrix-free measurement.

## Advantages

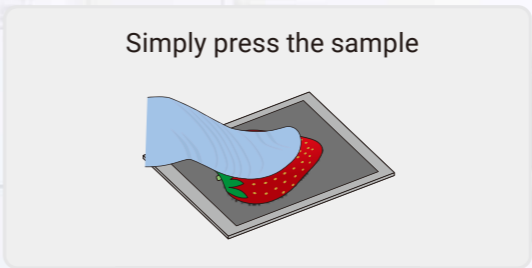
Conventionally...

- Sample preparation is time-consuming.
- Unable to measure samples that cannot be thinly sectioned

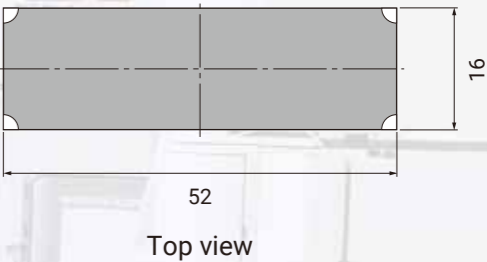


With Poropare,

- Sample preparation is completed by simply pressing (transferring) the sample.
- No need to prepare a thin section for mass spectrometry imaging.



## Dimensional outline (unit: mm)



## Place

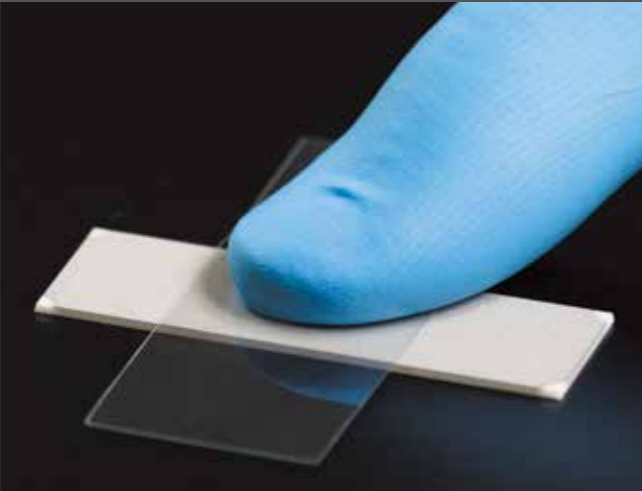


\*Non-standard size used

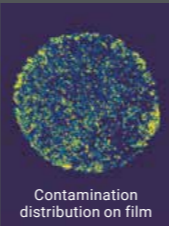
Place a moist sample on Poropare and press gently so that the entire surface is in contact. Poropare's high water absorbency allows imaging without significant delocalization, so it can be widely used for moisture-containing plants and foods.



## Press



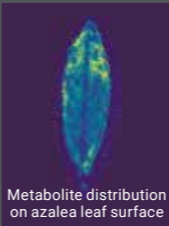
For dry samples, apply moderate pressure so that the sample components adhere to Poropare. The ionization-assist function is maintained even when Poropare is pressed. Useful for additive analysis and bleed-out analysis of polymer materials.



## Crush



The components inside the sample can be transferred by crushing the sample on Poropare. A spatial distribution of components extruded by crushing is retained because of the water absorbability. Poropare can be used for leaf metabolite sampling, etc.



## Drop



Poropare can also be used for matrix-free measurement of sample solutions. Dropped solutions on the top surface do not concentrate but are absorbed inside of Poropare, therefore the use of high concentration solutions is recommended. It can be used for signal confirmation and calibration of target samples.

# Applications

## Transfer only the surface

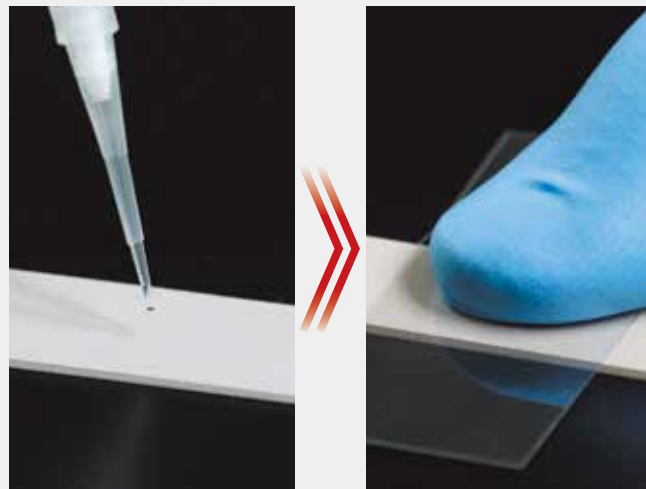


Poropare is also suitable for surface analysis. Compared with by scraping or peeling, sampling with Poropare can reduce background components and focus on those from the surface selectively. Softcoating, such as sunscreen on the skin, can also be easily transferred.

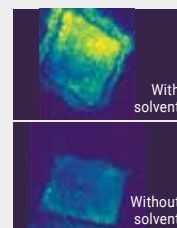


Distribution of sunscreen ingredients on skin

## Dissolve and transfer



By pre-applying a solvent that dissolves the sample on Poropare, solvent extraction can also be performed on the contact surface. This method improves the transfer efficiency of dry samples.



Comparison with TIC images

Poropare is widely used in a variety of fields, including the evaluation of organic materials and the analysis of agricultural and food-related ingredients. Specific examples and FAQs on how to use Poropare are available on our website.



<https://www.hamamatsu.com/all/en/product/optical-components/transfer-plate.html>



- The application examples described in our product literature are not intended to guarantee suitability for any particular application or the success or failure of any commercial use. No guarantee or license is granted for the enforcement of any intellectual property rights. We will not be held liable for any intellectual property rights issues that may arise with third parties as a result of using this information.
- The information in this document is current as of June 2025. Product specifications are subject to change without notice for improvements, etc.

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