

Imaging of surface contamination: Selective press-transfer sampling of the topmost surface components

■ Measurement challenges

Substances that cause surface contamination such as foreign matter, stains, and deposits from base material are often localized near the topmost surface. These substances are usually not thick enough to make thin section samples and are very difficult to collect as samples.

■ Approach

Dried stains on the film were sampled by bringing them into contact with Poropare and pressing on the film with just finger pressure. Mass spectrometry imaging was then performed after transfer to Poropare™ with no further processing or treatment.

Benefits from using Poropare

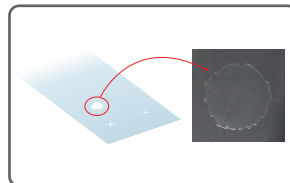
- **Visualizes components with a distribution that matches stains**

Two types of contaminants were found that matched the stain shape and results showed that each had its own localized position.

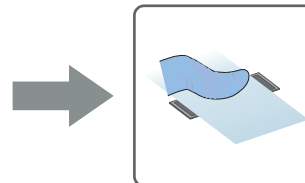
- **Component transfer by pressing**

Even when the objects being analyzed were dry, measurement could be made by press-transfer to Poropare.

■ Measurement procedure



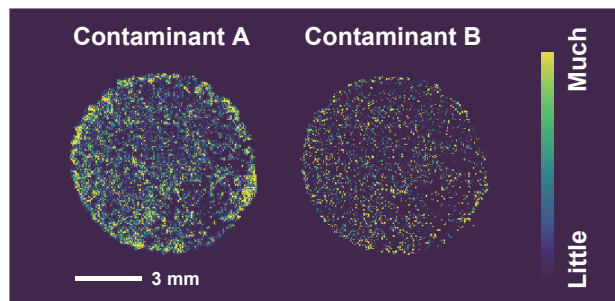
Find stains on film.



Press and transfer the image onto Poropare.



Insert into the instrument !



- Poropare is registered trademark of Hamamatsu Photonics K.K. in China, EU, Japan, UK and USA.
- 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.
- 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. ©2025 Hamamatsu Photonics K.K.
- Please thoroughly read the precautions and the prohibited uses included in the user manual before installation and use.

HAMAMATSU PHOTONICS K.K. www.hamamatsu.com

Electron Tube/Laser Applied Sales

314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539-62-5245, Fax: (81)539-62-2205

E-mail: msi-t001@hpk.co.jp