

SmartSampling[™]: Turns Raman Imaging from Hours to Minutes

The app to speed-up your analysis





HORIBA

Get much more of your sample in less time SmartSamplingTM is HORIBA's ultimate tool for Raman Imaging. It offers incredible acquisition performance for high-resolution images, even for weak scatterers, in a fraction of the time required for standard maps.

SmartSampling[™] technology uses an adaptative mapping step size approach to highlight the smallest microscopic details on the surface of your sample.

Its user friendly and intuitive approach, *SmartSampling™* supports you to make the most accurate and efficient Raman analysis. It intelligently combines precision and speed.

Use *SmartSampling*[™] for:

- High-resolution Raman images, with the best quality for a given time
- Large samples even with very small details



High quality Raman image of WSe₂ flake: 2 layers, few layers and bulk. Total acquisition time 45 min in SmartSampling[™] versus 20 h for a point by point map (sample supplier https://2dlayer.com/) If an overnight point by point Raman map (100 x 100 pixels, 4 s/point) is acquired in 12 hours, an equivalent map can be obtained in a few minutes with SmartSampling[™].

Alternatively, a 12 hour *SmartSampling™* map will allow the acquisition of a 1000 x 1000 pixels equivalent, 4 s/ point map.

With a single button press, the easy to use algorithm automatically and continuously improves the quality of the complete image.

- Based on the sample image contrast SmartSampling[™] organizes the measurement points and continuously improves the image.
- The most important points are acquired first.
- The user is free to stop the scan at any time, as soon • as the image quality is good enough.



SmartSampling™ Raman Images: (A) Graphene flakes in 4 min vs 2 h 30 min in standard mode, (B) Convallaria Cells in 14 min vs 5 h in standard mode



SmartSamplingTM Raman Images: (C) Quartz distribution on stone with topography 3 h vs 36 h in standard mode, (D) WSe₂ flakes in 1 h 40 min vs 7 h in standard mode



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