Realization of common platform technology, facilities, and equipment that creates innovative knowledge and products

Fast spectroscopic super-resolution infrared imaging by integrating measurement and analysis

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Summary :

This project is aimed at creating a new infrared measurement tool based on a unique integrated measurement and analysis approach by incorporating optical information processing technology into superresolution infrared imaging. This technology is expected to contribute as a practical analytical method in the development and production of manufacturers.

- Currently, high-precision analysis of devices and materials requires large equipment, special environments such as high vacuum and low temperatures, and long measurement times, and occasionally causes damage to sample.
- The purpose of this project is to establish a unique integration of measurement and analysis for infrared spectroscopic imaging to achieve more clear images and faster measurements.
- Active integration of information processing technology into superresolution infrared microscopy is a challenging task, but it is expected to have a significant ripple effect on in situ analysis in research and development in manufacturing industry.



