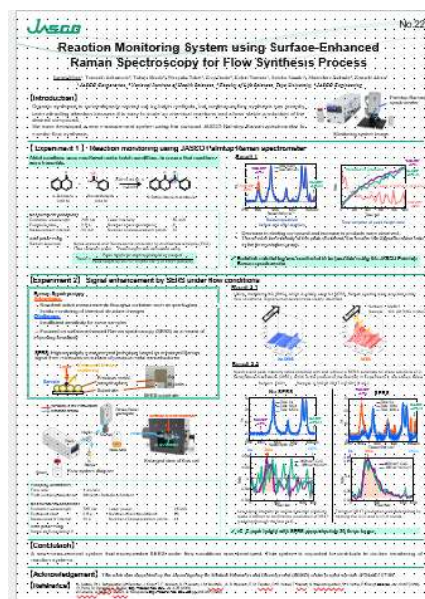


Nano=Kraft AluSERS useful for JASCO

We are also happy that our substrate has been useful for JASCO, one of the oldest spectrometer producers in Japan. Currently they are involved in a national project supported by the Japan Agency for Medical Research and Development (AMED). Their mission is to apply Raman spectroscopy for monitoring continuous-flow synthesis. By incorporating our AluSERS substrate into a flow system, their Palmtop Raman Spectrometer has proven itself capable of monitoring the synthesis product, 2-benzylidene-1-tetralone. The poster on the right was presented at RSC-JAIMA Symposium on Analytical Chemistry 2024 in parallel with JASIS 2024. Details of the poster are further shown below.



[Experiment 2] Signal enhancement by SERS under flow

Raman Spectroscopy

Advantages

- Non-destructive measurements through a container such as quartz glass
- In-situ monitoring of chemical structure changes

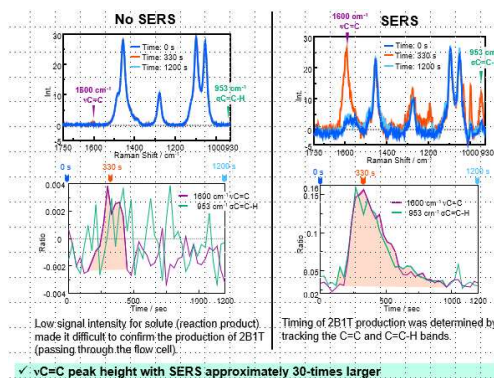
Challenges

- Insufficient sensitivity for some samples

→ Focused on surface-enhanced Raman spectroscopy (SERS) as a means of improving sensitivity

SERS: High-sensitivity measurement technique based on enhanced Raman signal from molecules on surface of precious metal nanostructures

Labels in diagram: Laser, Enhanced Raman scattering, Sample, Precious metal nanostructure, Substrate, Ag, Al plate, SERS substrate.



Detail 1: About the SERS substrate

Detail 2: Efficacy of using SERS

We hope we continue to be of help to JASCO and JASCO Engineering.