

Newly Installed Mass Spectrometers Equipped with NanoESI and LESA!

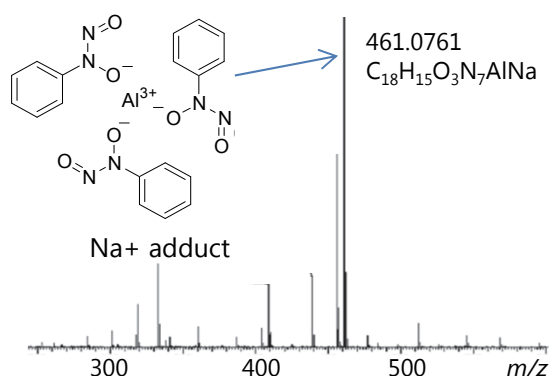
~Highly accurate analysis of complexes and trace surface contamination~

High-resolution NanoESI-MS equipped with LESA(Liquid Extraction Surface Analysis) has been installed. It has become possible to detect complexes and surface trace components.

NanoESI ionization technology!

NanoESI: A process in which a sample solution is added into a capillary having a tip diameter of several micrometers. Nano ESI method enables detection of unstable compounds.

✓ Analytical examples of organometallic complexes



MS: Q-Exactive Plus

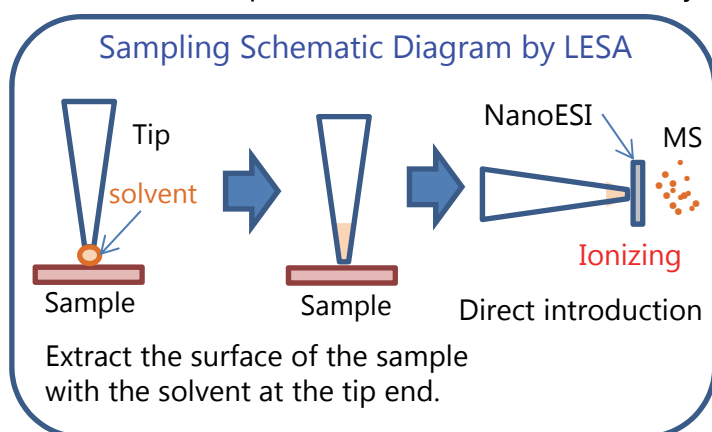
Mass-separation section: Orbitrap, quadrupole

Max. mass resolution: 140,000 (m/z 200)

➡ Unstable complexes can be detected with structure retained!

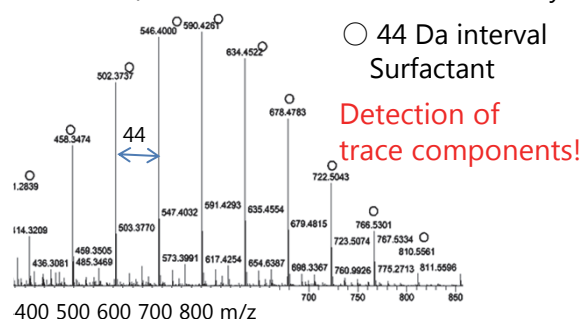
New surface-sampling method "LESA" is installed!

A method in which the sample surface is extracted with several microliters of solvent formed at the tip end, and the extract is directly introduced into NanoESI-MS.



✓ Analyzing substrate surface contamination

Substrates coated with about 20 ng/cm^2 (200 nm thickness) of nonionic surfactant were analyzed.



➡ Determination of the structure of trace components and low-boiling components on the sample surface is possible!

The structures of unstable organometallic complexes, trace components, and surface contaminants can be determined using HRMS!