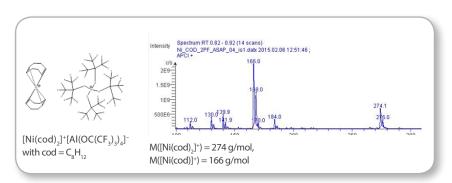
iASAP - MASS ANALYSIS OF AIR-SENSITIVE SAMPLES WITHOUT SAMPLE PREP

Advion

The Atmospheric Solids Analysis Probe (ASAPTM) allows chemists to directly analyze liquid and solid samples by mass spectrometer without the need for sample preparation. The inert ASAP (iASAP) is a modification of this technique, allowing easy sampling of airsensitive compounds, such as metal catalysts and organometallics, from reactions that are carried out in a glove box or Schlenk line to prevent oxidation. The technique allows a synthetic chemist to perform real-time reaction monitoring by sampling the compound with the special iASAP probe, which is designed to provide access to the sample without disturbing the inert environment, then transferring the sample to the CMS, while continuing to protect it in an inert environment where it is ionized by atmospheric pressure chemical ionization (APCI). Mass Spectra are acquired in seconds.

The inert sampling modification to the ASAP probe was developed by Professor Ingo Krossing's group at the Albert-Ludwigs- University of Freiburg, based on the need for a transportation tool for air-sensitive compounds to the mass spectrometer for more efficient workflow and fast analysis.





The apparatus consists of an extended ASAP probe protected in an exterior sheath fitted with a three-way valve allowing the system to be flushed with inert gas and then sealed. In this manner it is possible sample a reaction mixture on the iASAP probe, seal it in inert gas and then take it to the mass spectrometer for analysis.

