



Photoionisation Mass Spectrometry with Lasers and incoherent VUV light sources

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Resonance enhanced multi photon ionisation mass spectrometry (REMPI-MS) using laser generated UV-pulses and single photon ionisation mass spectrometry (SPI-MS) using laser generated VUV-pulses for ionisation are powerful methods for analysis of organic species in complex matrices. A key point is the softness of the ionisation process, which allows the detection of the intact molecules. Recently, also improved electron-beam pumped rare gas excimer lamps (EBEL) are used for the generation of VUV-light for single photon ionisation (SPI). These photo ionisation techniques can be applied for direct on-line monitoring of evolved gases and aerosol particles from e.g. combustion and pyrolysis processes.

Furthermore the photo ionisation mass spectrometric systems can be hyphenated to other analytical systems such as gas chromatography or thermal analysis. In the lecture the instrument setup, scientific background as well as different applications are addressed.

Hörsaal F

15:45 Uhr

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