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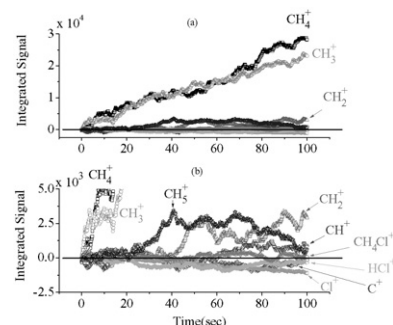
Regular articles

1–11

Development of a novel technique for quantitatively determining the products of electron-ion dissociative recombination

Christopher D. Molek, Viktoriya Poterya, Nigel G. Adams, Jason L. McLain

Quantitative technique to determine the neutral products of electron-ion dissociative recombination and ion–ion recombination.

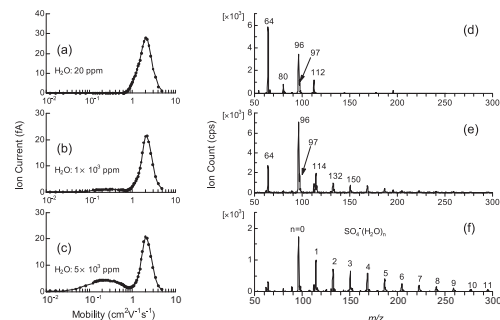


12–18

Charged particle formation by the ionization of air containing sulfur dioxide

Kenkichi Nagato

Experimental investigation of charged particle formation by the ionization of air containing sulfur dioxide was performed using a nano-DMA and an atmospheric pressure ionization mass spectrometer.

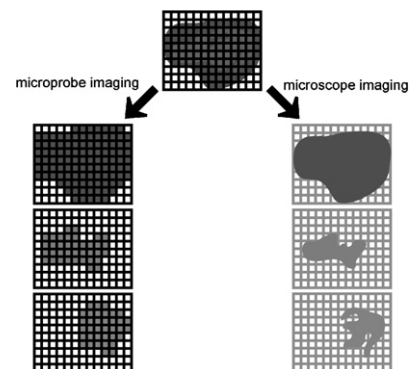


19–25

Fast and automated large-area imaging MALDI mass spectrometry in microprobe and microscope mode

Leendert A. Klerk, A.F. Maarten Altelaar, Martin Froesch, Liam A. McDonnell, Ron M.A. Heeren

New developments that makes large (cm range) field of view, high (μm range) resolution microscope mode imaging mass spectrometry (IMS) possible in a single experiment.

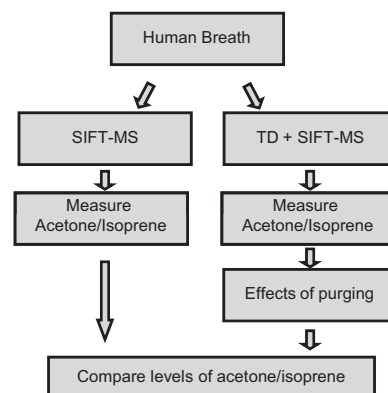


26–30

Detection of acetone and isoprene in human breath using a combination of thermal desorption and selected ion flow tube mass spectrometry

Alexa Hryniuk, Brian M. Ross

Human breath was collected and analyzed by the TD-SIFT-MS combination or by direct SIFT-MS only. Measurements of acetone and isoprene were compared between both techniques and found to be equivalent.

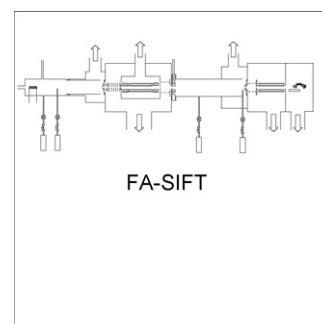


31–41

Flowing afterglow selected ion flow tube (FA-SIFT) study of ion/molecule reactions in support of the detection of biogenic alcohols by medium-pressure chemical ionization mass spectrometry techniques

F. Dhooghe, C. Amelynck, J. Rimetz-Planchon, N. Schoon, F. Vanhaecke

Validation measurements of a new FA-SIFT instrument and new information on ion/molecule reactions which occur when quantifying unsaturated biogenic alcohols in a CIMS reactor using H_3O^+ precursor ions are presented.

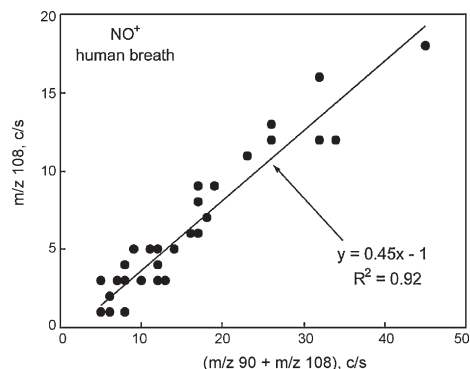


42–48

Analysis of the isobaric compounds propanol, acetic acid and methyl formate in humid air and breath by selected ion flow tube mass spectrometry, SIFT-MS

Andriy Pysanenko, Patrik Španěl, David Smith

Ion chemistry of H_3O^+ and NO^+ with four MW 60 compounds at humidity up to 6% allows quantification of acetic acid and methyl formate in human breath.

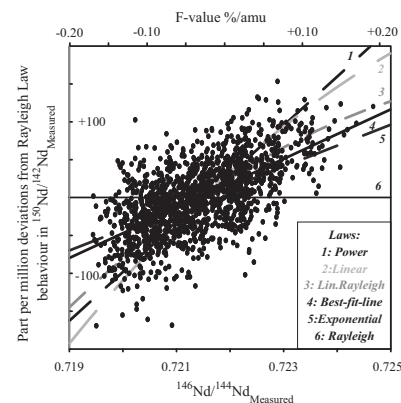


49–57

Fractionation and mixing in a thermal ionization mass spectrometer source: Implications and limitations for high-precision Nd isotope analyses

Rasmus Andreasen, Mukul Sharma

The adequacy of fractionation laws to correct for mass-dependent isotope fractionation in a Thermal Ionization Mass Spectrometer source, and the assumption of homogenous sample evaporation and ionization are tested using a large dataset of neodymium standards.

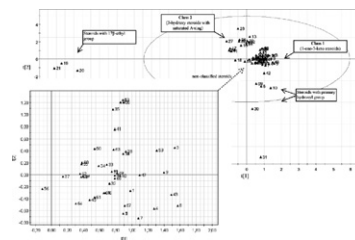


58–69

Statistical analysis of fragmentation patterns of electron ionization mass spectra of enolized-trimethylsilylated anabolic androgenic steroids

A.G. Fragkaki, Y.S. Angelis, A. Tsantili-Kakoulidou, M. Koupparis, C. Georgakopoulos

The suitability of complementary GC–MS mass spectra and statistical analysis (principal component analysis, PCA and partial least squares-discriminant analysis, PLS-DA) to differentiate trimethylsilylated- (TMS-) derivatives of anabolic androgenic steroids (AAS), as a function of their structural and conformational features expressed by their fragment ions, is explored.

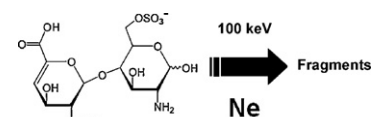


70–77

Structural characterization of negatively charged glycosaminoglycans using high-energy (50–150 keV) collisional activation

Christopher J. Taylor, Ruth M. Burke, Bohan Wu, Subhasis Panja, Steen Brøndsted Nielsen, Caroline E.H. Dessert

Anionic glycosaminoglycan mono- and disaccharides were subjected to high-energy collisional activation (50–150 keV) in an accelerator mass spectrometer to explore the utility of this method for structurally characterizing anionic sugars.

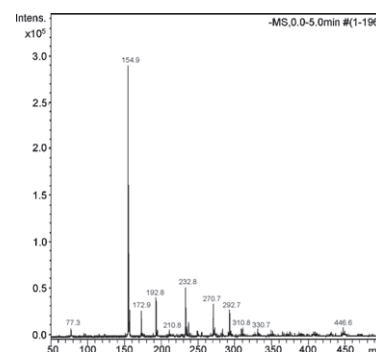


78–85

ESI-MS investigation of the polymerization of inorganic polymers

Morten E. Simonsen, Erik G. Søgaard

In this work the polymerization of inorganic polymers synthesized from microsilica and mineral base (KOH or NaOH) was investigated using electro spray ionisation mass spectrometry (ESI-MS).

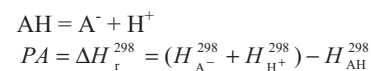


86–94

How reliable are gas-phase proton affinity values of small carbanions? A comparison of experimental data with values calculated using Gaussian-3 and CBS compound methods

Witold Danikiewicz

Reliable proton affinity values: to measure or to compute – that is the question!

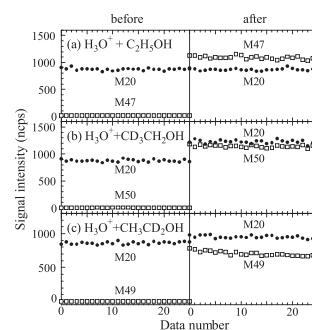


95–99

A deuterium-labeling study on the reproduction of hydronium ions in the PTR-MS detection of ethanol

Satoshi Inomata, Hiroshi Tanimoto

The contribution of the channel reproducing H_3O^+ in the PTR-MS detection of ethanol was determined by detecting H_2DO^+ produced in reactions of H_3O^+ with deuterium-labeled ethanols.



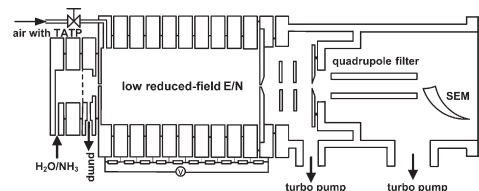
Short communication

100–103

Triacetone triperoxide detection using low reduced-field proton transfer reaction mass spectrometer

Chengyin Shen, Jianquan Li, Haiyan Han, Hongmei Wang, Haihe Jiang, Yannan Chu

The explosive triacetone triperoxide (TATP) was detected using a proton transfer reaction mass spectrometer at low reduced-field using water or ammonia as discharge gas.



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