



## Contents

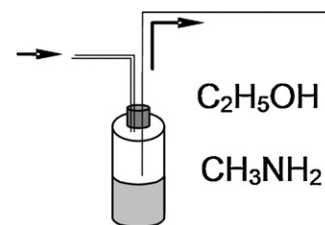
### Regular articles

#### 1–6

#### Quantification of methylamine in the headspace of ethanol of agricultural origin by selected ion flow tube mass spectrometry

K. Dryahina, F. Pehal, D. Smith, P. Španěl

Proton bound ethanol trimer  $(C_2H_5OH)_3H^+$  is used as a reagent for quantitative SIFT-MS chemical ionization of methylamine in ethanol samples.

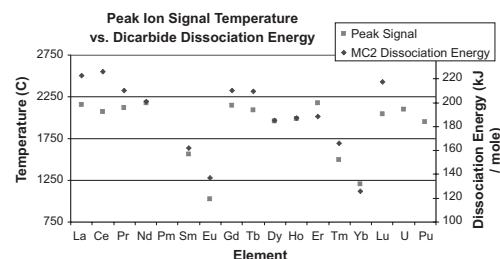


#### 7–10

#### Metal dicarbides as intermediate species in thermal ion formation mechanisms

Matthew G. Watrous, James E. Delmore

A systematic study of the ion emission temperature from thermal ion sources containing lanthanide elements using thermal ionization mass spectrometry.

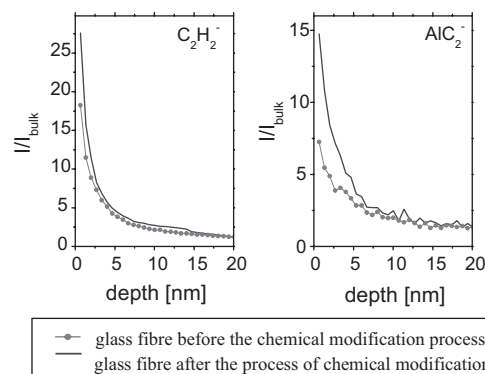


#### 11–16

#### Surface characteristics of glass fibres covered with an aluminum layer after a chemical modification process using secondary ion mass spectrometry (SIMS) and atomic force microscopy (AFM)

Katarzyna Kupiec, Piotr Konarski, Piotr Konieczka, Jacek Namieśnik

The paper describes the procedure of chemical modification of the surface of 3 cm segments of glass fibres covered with an aluminum layer (660/680  $\mu\text{m}$ , external diameter of quartz/external Al diameter), a surfactant constituting a source of ethene.

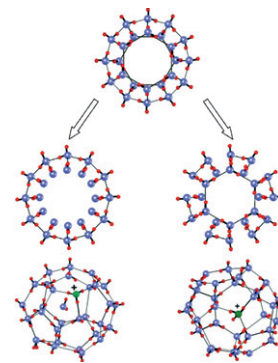


## 17–27

### Investigations on mixed water-clusters: Gas phase titration with cyclopentanone and identification of some isomers by time-of-flight mass spectrometry

Tahzeeb Momin, Sunil K. Ghosh, Ashok Bhowmick

Protonated mixed-clusters of water with cyclopentanone are investigated using time-of-flight mass spectrometry which reveals the isomeric structures given by  $[K](H_3O)^+$  model for water hexa, hepta and octamer.

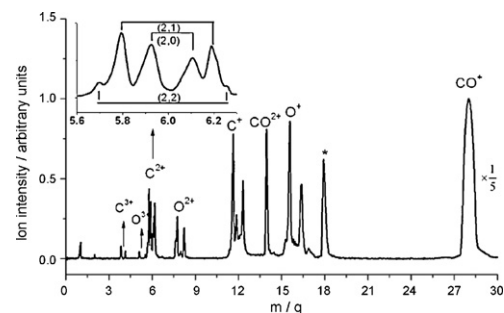


## 28–31

### Molecular dynamics of CO in few-cycle laser fields

Qingqing Liang, Chengyin Wu, Zhifeng Wu, Min Liu, Yongkai Deng, Qihuang Gong

Mass spectra of CO irradiated by 6 fs linearly polarized laser pulses at an intensity of  $2 \times 10^{15}$  W/cm<sup>2</sup>. Strong charge asymmetric dissociation (2, 0) is observed in the current intense few-cycle laser field.

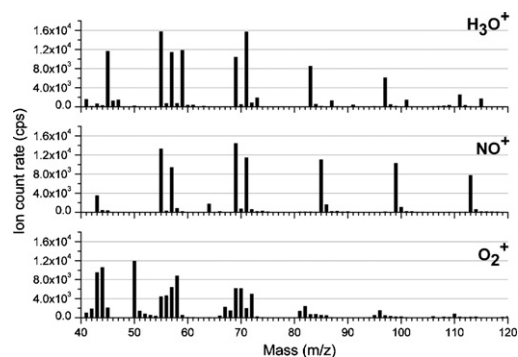


## 32–38

### An online ultra-high sensitivity Proton-transfer-reaction mass-spectrometer combined with switchable reagent ion capability (PTR + SRI – MS)

A. Jordan, S. Haidacher, G. Hanel, E. Hartungen, J. Herbig, L. Märk, R. Schottkowsky, H. Seehauser, P. Sulzer, T.D. Märk

Development of a PTR-MS instrument allowing for easy and fast switching between  $H_3O^+$ ,  $NO^+$  and  $O_2^+$  primary ions with detection limits in the ppqv range.



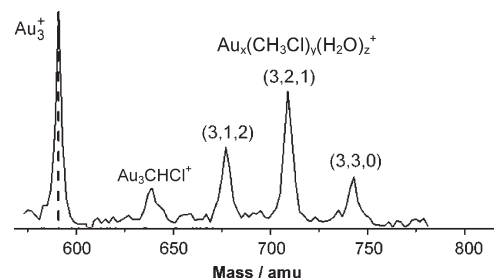
## Short communication

## 39–41

### Reactions of free gold cluster cations with $H_2O$ , $CH_3Cl$ , and mixtures thereof

Sandra M. Lang, Thorsten M. Bernhardt

rf ion trap investigations reveal the adsorption and co-adsorption behavior of  $H_2O$  and  $CH_3Cl$  on small mass-selected gold clusters.



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