

International Journal of Mass Spectrometry 189 (1999) 227–230

International Journal of Mass Spectrometry

Subject index

# Aberration

Minimisation of the aberrations of electrostatic lens systems composed of quadrupole and octupole lenses, 19

Atomic weight

Absolute isotopic composition and atomic weight of germanium, 205

Measurement of the isotopic composition of germanium using GeF<sub>4</sub> produced by direct fluorination and wet chemical procedures, 27

#### Carbon clusters

Geometrical structures of the phosphorus-doped carbon cluster cations  $C_n P^+$  (n = 1-20), 125

#### Charge transfer

Selected ion flow tube studies of the reactions of  $H_3O^+$ ,  $NO^+$ , and  $O^+_2$  with several aromatic and aliphatic monosubstituted halocarbons, 213

#### Chemical ionisation

Selected ion flow tube studies of the reactions of  ${\rm H_3O^+}$ ,  ${\rm NO^+}$ , and  ${\rm O^+_2}$  with several aromatic and aliphatic monosubstituted halocarbons, 213

#### Clusters

Low temperature fast atom bombardment mass spectra of HCl water solution, L1

# $C_n P^+$

Geometrical structures of the phosphorus-doped carbon cluster cations  $C_nP^+$  (n=1-20), 125

# Cometary dust

Organic substances in cometary grains: comparison of secondary ion mass spectral data and californium-252 plasma desorption data from reference compounds, 79

#### Cometary secondary ion mass analyzer (COSIMA)

Organic substances in cometary grains: comparison of secondary ion mass spectral data and californium-252 plasma desorption data from reference compounds, 79

# Condensation in a laser ablated plume

On the formation of ionic species generated in UV-laser desorption ionization of a frozen aqueous CdCl<sub>3</sub> solution, 157

# Crystalline hydrates

Low temperature fast atom bombardment mass spectra of HCl water solution, L1

# Density functional theory (DFT)

Geometrical structures of the phosphorus-doped carbon cluster cations  $C_nP^+$  (n=1-20), 125

#### Dimer emission

Anomalous signal formation in secondary ion mass spectrometry of palladium, 173

#### Duffing equation

Field imperfection induced axial secular frequency shifts in nonlinear ion traps, 53

#### Electron

Minimisation of the aberrations of electrostatic lens systems composed of quadrupole and octupole lenses, 19

# Electron impact induced fragmentation

Excitation of  $C_{60}^+$  by electrons in a Fourier transform ion cyclotron resonance ion trap: an experimental determination of the radiative cooling rate through its competition with  $C_2$  evaporation, 93

# Electron ion recombination

Study of the electron ion recombination in high pressure flowing afterglow: recombination of NH<sub>4</sub><sup>+</sup> (NH<sub>3</sub>)<sub>2</sub>, 103

# Electrostatic

Minimisation of the aberrations of electrostatic lens systems composed of quadrupole and octupole lenses, 19

# Energy analyzer (energy filter)

Hyperboloid mass spectrometers for space exploration, 9 Entropy effects

Thermochemistry and structures of Na<sup>+</sup> coordinated mono- and disaccharide stereoisomers, 189

# Environmental pollutants

Rydberg electron capture mass spectrometry of some environmental pollutants, 181

# Flowing afterglow

Study of the electron ion recombination in high pressure flowing afterglow: recombination of  $NH_4^+$  ( $NH_3$ )<sub>2</sub>, 103

# Fluorination

Measurement of the isotopic composition of germanium using GeF<sub>4</sub> produced by direct fluorination and wet chemical procedures, 27

228 Subject index

Fourier transform ion cyclotron resonance (FTICR)

Excitation of  $C_{60}^+$  by electrons in a Fourier transform ion cyclotron resonance ion trap: an experimental determination of the radiative cooling rate through its competition with  $C_2$  evaporation, 93

Fourier transform mass analysis

Rydberg electron capture mass spectrometry of some environmental pollutants, 181

Frequency shift

Field imperfection induced axial secular frequency shifts in nonlinear ion traps, 53

Frozen water solutions

Low temperature fast atom bombardment mass spectra of HCl water solution, L1

Fullerene ions

Excitation of  $C_{60}^+$  by electrons in a Fourier transform ion cyclotron resonance ion trap: an experimental determination of the radiative cooling rate through its competition with  $C_2$  evaporation, 93

#### Germanium

Absolute isotopic composition and atomic weight of germanium, 205

Measurement of the isotopic composition of germanium using GeF<sub>4</sub> produced by direct fluorination and wet chemical procedures, 27

Graphite

Laser ablation of graphite at 355 nm: cluster formation and plume propagation, 115

#### Halocarbons

Selected ion flow tube studies of the reactions of  ${\rm H_3O^+}$ ,  ${\rm NO^+}$ , and  ${\rm O^+_2}$  with several aromatic and aliphatic monosubstituted halocarbons, 213

**HC1** 

Low temperature fast atom bombardment mass spectra of HCl water solution, L1

Hydrated ions formed in laser desorption ionization

On the formation of ionic species generated in UV-laser desorption ionization of a frozen aqueous CdCl<sub>3</sub> solution, 157

Hydride formation

Anomalous signal formation in secondary ion mass spectrometry of palladium, 173

# Ion emission

Influence of the primary ion beam parameters (nature, energy, and angle) on the kinetic energy distribution of molecular fragments sputtered from poly(ethylene terephthalate) by kiloelectron volt ions, 133

#### on guns

A univoltage ion gun design, 39

Ion-molecule reactions

Selected ion flow tube studies of the reactions of  $\mathrm{H_3O^+}$ ,  $\mathrm{NO^+}$ , and  $\mathrm{O^+_2}$  with several aromatic and aliphatic monosubstituted halocarbons, 213

Ion optics

A modular ion beam deflector, 47

A univoltage ion gun design, 39

Ion trap

Hyperboloid mass spectrometers for space exploration, 9 A modular ion beam deflector, 47

Isotopes

Measurement of the isotopic composition of germanium using GeF<sub>4</sub> produced by direct fluorination and wet chemical procedures, 27

Isotopic abundance

Absolute isotopic composition and atomic weight of germanium, 205

Isotopic composition

Measurement of the isotopic composition of germanium using GeF<sub>4</sub> produced by direct fluorination and wet chemical procedures, 27

# Kinetic energy

Influence of the primary ion beam parameters (nature, energy, and angle) on the kinetic energy distribution of molecular fragments sputtered from poly(ethylene terephthalate) by kiloelectron volt ions, 133

# Langmuir probe

Study of the electron ion recombination in high pressure flowing afterglow: recombination of NH<sub>4</sub><sup>+</sup> (NH<sub>3</sub>)<sub>2</sub>, 103

Laser ablation

A comparative mass spectroscopic study between infrared and ultraviolet laser ablation of a superconducting YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub> target, 1

Formation of lead/sulfur binary cluster ions by laser ablation, 147

Laser ablation of graphite at 355 nm: cluster formation and plume propagation, 115

Laser desorption ionization from a frozen aqueous sample
On the formation of ionic species generated in UV-laser
desorption ionization of a frozen aqueous CdCl<sub>3</sub> solution,
157

#### Lead/sulfur clusters

Formation of lead/sulfur binary cluster ions by laser ablation, 147

Subject index 229

#### Lens

Minimisation of the aberrations of electrostatic lens systems composed of quadrupole and octupole lenses, 19

Low temperature fast atom bombardment

Low temperature fast atom bombardment mass spectra of HCl water solution. L1

#### Mass analyzer

Hyperboloid mass spectrometers for space exploration, 9 Mass spectrometry

Absolute isotopic composition and atomic weight of germanium, 205

A comparative mass spectroscopic study between infrared and ultraviolet laser ablation of a superconducting  $YBa_2Cu_3O_{7-x}$  target, 1

#### Microwave discharge

Characterization of an Ar-TMS microwave discharge using mass spectrometry: effect of the reactor design on free-radical contents, 63

#### Monopole mass filter

Hyperboloid mass spectrometers for space exploration, 9 Multiplets

Minimisation of the aberrations of electrostatic lens systems composed of quadrupole and octupole lenses, 19 Multipoles

Field imperfection induced axial secular frequency shifts in nonlinear ion traps, 53

# Na<sup>+</sup> affinity

Thermochemistry and structures of Na<sup>+</sup> coordinated mono- and disaccharide stereoisomers, 189

# Na<sup>+</sup> complexes

Thermochemistry and structures of Na<sup>+</sup> coordinated mono- and disaccharide stereoisomers, 189

#### Negative ions

Anomalous signal formation in secondary ion mass spectrometry of palladium, 173

# Nonlinear traps

Field imperfection induced axial secular frequency shifts in nonlinear ion traps, 53

#### Palladium-cesium

Anomalous signal formation in secondary ion mass spectrometry of palladium, 173

#### Photodissociation

Formation of lead/sulfur binary cluster ions by laser ablation, 147

# Plasma

A comparative mass spectroscopic study between infrared and ultraviolet laser ablation of a superconducting  $YBa_2Cu_3O_{7-x}$  target, 1

#### Plasma composition

Characterization of an Ar-TMS microwave discharge using mass spectrometry: effect of the reactor design on free-radical contents, 63

#### Plasma desorption mass spectrometry (PDMS)

Organic substances in cometary grains: comparison of secondary ion mass spectral data and californium-252 plasma desorption data from reference compounds, 79

# Poly(ethylene terephthalate) (PET)

Influence of the primary ion beam parameters (nature, energy, and angle) on the kinetic energy distribution of molecular fragments sputtered from poly(ethylene terephthalate) by kiloelectron volt ions, 133

#### Proton transfer

Selected ion flow tube studies of the reactions of  $H_3O^+$ ,  $NO^+$ , and  $O^+_2$  with several aromatic and aliphatic monosubstituted halocarbons, 213

# Ouadrupole

Minimisation of the aberrations of electrostatic lens systems composed of quadrupole and octupole lenses, 19

# Quadrupole ion trap

Rydberg electron capture mass spectrometry of some environmental pollutants, 181

# Quadrupole mass filter

Hyperboloid mass spectrometers for space exploration, 9

# Radiative cooling

Excitation of  $C_{60}^+$  by electrons in a Fourier transform ion cyclotron resonance ion trap: an experimental determination of the radiative cooling rate through its competition with  $C_2$  evaporation, 93

# Recombination coefficient

Study of the electron ion recombination in high pressure flowing afterglow: recombination of  $NH_4^+$  ( $NH_3$ )<sub>2</sub>, 103

#### Recombination of cluster ions

Study of the electron ion recombination in high pressure flowing afterglow: recombination of NH<sub>4</sub>. (NH<sub>3</sub>)<sub>2</sub>, 103 ROSETTA

Organic substances in cometary grains: comparison of secondary ion mass spectral data and californium-252 plasma desorption data from reference compounds, 79

#### Rydberg electron capture

Rydberg electron capture mass spectrometry of some environmental pollutants, 181

# Saccharides

Thermochemistry and structures of Na<sup>+</sup> coordinated mono- and disaccharide stereoisomers, 189 Secondary ion mass spectrometry (SIMS) 230 Subject index

Anomalous signal formation in secondary ion mass spectrometry of palladium, 173

Influence of the primary ion beam parameters (nature, energy, and angle) on the kinetic energy distribution of molecular fragments sputtered from poly(ethylene terephthalate) by kiloelectron volt ions, 133

A modular ion beam deflector, 47

Organic substances in cometary grains: comparison of secondary ion mass spectral data and californium-252 plasma desorption data from reference compounds, 79 A univoltage ion gun design, 39

# Secular frequency

Field imperfection induced axial secular frequency shifts in nonlinear ion traps, 53

# Selected ion flow tube (SIFT)

Selected ion flow tube studies of the reactions of  $\mathrm{H_3O^+}$ ,  $\mathrm{NO^+}$ , and  $\mathrm{O^+_2}$  with several aromatic and aliphatic monosubstituted halocarbons, 213

#### Sputtering

Influence of the primary ion beam parameters (nature, energy, and angle) on the kinetic energy distribution of molecular fragments sputtered from poly(ethylene terephthalate) by kiloelectron volt ions, 133

#### Stereoisomer distinction

Thermochemistry and structures of Na<sup>+</sup> coordinated mono- and disaccharide stereoisomers, 189

# Superconductivity

A comparative mass spectroscopic study between infrared and ultraviolet laser ablation of a superconducting  $YBa_2Cu_3O_{7-x}$  target, 1

#### Tetramethyl silane

Characterization of an Ar-TMS microwave discharge using mass spectrometry: effect of the reactor design on free-radical contents, 63

# Time-of-flight (TOF) mass spectrometer

A comparative mass spectroscopic study between infrared and ultraviolet laser ablation of a superconducting  $YBa_2Cu_3O_{7-x}$  target, 1

Formation of lead/sulfur binary cluster ions by laser ablation, 147

Laser ablation of graphite at 355 nm: cluster formation and plume propagation, 115

# Trace gas analysis

Selected ion flow tube studies of the reactions of  ${\rm H_3O^+}$ ,  ${\rm NO^+}$ , and  ${\rm O^+_2}$  with several aromatic and aliphatic monosubstituted halocarbons, 213

#### **TRIM**

Influence of the primary ion beam parameters (nature, energy, and angle) on the kinetic energy distribution of molecular fragments sputtered from poly(ethylene terephthalate) by kiloelectron volt ions, 133