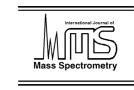


International Journal of Mass Spectrometry 242 (2005) 325-328



www.elsevier.com/locate/iims

Subject index Volume 242

Ab initio calculations

The acid-catalyzed rearrangement CH₃O* A *CH₂OH and its involvement in the dissociation of the methanol dimer radical cation, 49

Absolute amount ratio

Absolute sulfur isotope amount ratios in two batches of high purity SO₂ gas: sulfur isotope reference materials IRMM-2012 and IRMM-2013,

Accelerator mass spectrometry

Progress in isotope analysis at ultra-trace level by AMS, 145

Acid-catalyzed rearrangement

The acid-catalyzed rearrangement CH₃O* A *CH₂OH and its involvement in the dissociation of the methanol dimer radical cation, 49

Gas phase antimony/tungsten/oxygen cluster cations, 57

N-Arylbenzonitrilum ions

Mass spectrometric decomposition of N-arylbenzonitrilium ions, 1

Biodefense

TIGER: the universal biosensor, 23

Biological samples

Determination of uranium isotopic ratios in biological samples using laser ablation inductively coupled plasma double focusing sector field mass spectrometry with cooled ablation chamber, 297

Biomolecules

Isotope dilution technique for quantitative analysis of endogenous trace element species in biological systems, 217

Biosensor

TIGER: the universal biosensor, 23

Cluster ion

Gas phase antimony/tungsten/oxygen cluster cations, 57

Collision-induced dissociation

Mass spectrometric decomposition of N-arylbenzonitrilium ions, 1 Coulomb explosion

Intense femtosecond laser field-induced Coulomb fragmentation of C_2H_4 , 43

Crystal growth

2,5-Dihydroxybenzoic acid: laser desorption/ionisation as a function of elevated temperature, 13

Desorption

2,5-Dihydroxybenzoic acid: laser desorption/ionisation as a function of elevated temperature, 13

DFT calculation

Loss of benzene from methylphenylsilane and dimethylphenylsilane molecular cations, 5

Dimer radical cation

The acid-catalyzed rearrangement CH₃O[•] A [•]CH₂OH and its involvement in the dissociation of the methanol dimer radical cation, 49

Dimethylphenylsilane ion

Loss of benzene from methylphenylsilane and dimethylphenylsilane molecular cations, 5

Direct analysis

Direct determination of halogens in powdered geological and environmental samples using isotope dilution laser ablation ICP-MS, 291

Double spike method

Multiple ion counting ICPMS double spike method for precise U isotopic analysis at ultra-trace levels, 211

Electrospray ionisation-collision induced dissociation/mass spectrometry

A novel method for the analysis of the substitution pattern of O-methylα- and β-1,4-glucans by means of electrospray ionisation-mass spectrometry/collision induced dissociation, 63

Enriched stable isotopes

Isotope dilution quantification of ²⁰⁰Hg²⁺ and CH₂²⁰¹Hg⁺ enriched species-specific tracers in aquatic systems by cold vapor ICPMS and algebraic de-convoluting, 225

Isotope ratio measurements by secondary ion mass spectrometry (SIMS) and glow discharge mass spectrometry (GDMS), 169

An assessment of the accuracy of stable Fe isotope ratio measurements on samples with organic and inorganic matrices by high-resolution multicollector ICP-MS, 257

Determination of sulfur isotope abundance ratios for SI-traceable low sulfur concentration measurements in fossil fuels by ID-TIMS, 309 Fragmentation pathways

Mass spectrometric decomposition of N-arylbenzonitrilium ions, 1 Fragmentation

Intense femtosecond laser field-induced Coulomb fragmentation of C₂H₄, 43

Gas chromatography

Isotope ratios on transient signals with GC-MC-ICP-MS, 233

Gas mass spectrometry

Silicon isotope amount ratios and molar masses for two silicon isotope reference materials: IRMM-018a and NBS28, 319

2,5-Dihydroxybenzoic acid: laser desorption/ionisation as a function of elevated temperature, 13

Geochronology

Laser ablation inductively coupled plasma mass spectrometry for direct isotope ratio measurements on solid samples, 273

Isotope ratio measurements by secondary ion mass spectrometry (SIMS) and glow discharge mass spectrometry (GDMS), 169

Glow discharge mass spectrometry, Isotope ratios

Isotope ratio measurements by secondary ion mass spectrometry (SIMS) and glow discharge mass spectrometry (GDMS), 169

326 Subject index

Groundwater

Determination of ⁹⁰Sr and Pu isotopes in contaminated groundwater samples by inductively coupled plasma mass spectrometry, 203

Halogen

Direct determination of halogens in powdered geological and environmental samples using isotope dilution laser ablation ICP-MS, 291

IDMS

Determination of sulfur isotope abundance ratios for SI-traceable low sulfur concentration measurements in fossil fuels by ID-TIMS, 309

Inductively coupled plasma mass spectrometry

Inductively coupled plasma mass spectrometry (ICP-MS) and laser ablation ICP-MS for isotope analysis of long-lived radionuclides, 183 Isotope dilution quantification of $^{200}{\rm Hg}^{2+}$ and ${\rm CH_3}^{201}{\rm Hg}^+$ enriched species-specific tracers in aquatic systems by cold vapor ICPMS and algebraic de-convoluting, 225

Determination of ⁹⁰Sr and Pu isotopes in contaminated groundwater samples by inductively coupled plasma mass spectrometry, 203

ICP-MS-based tracing of metal sources and mobility in a soil depth profile via the isotopic variation of Sr and Pb, 243

Isotope dilution technique for quantitative analysis of endogenous trace element species in biological systems, 217

Inductively coupled plasma

The development of multiple collector mass spectrometry for isotope ratio measurements, 97

Infectious disease

TIGER: the universal biosensor, 23

Intense femtosecond laser

Intense femtosecond laser field-induced Coulomb fragmentation of C_2H_4 , 43

Ionization

Intense femtosecond laser field-induced Coulomb fragmentation of C_2H_4 , 43

Ion-molecule complexes

Exploring the potential energy surface of ion-molecule pairs by experiment and by theory: acetaldehyde and methanol, 75

Ion-molecule reaction

FT-ICR MS studies of ion-molecule reactions of Ru^{+} and Os^{+} with oxygen, $87\,$

Iron metabolism

Deciphering the iron isotope message of the human body, 117 ron

Deciphering the iron isotope message of the human body, 117 Isotope dilution mass spectrometry

Direct determination of halogens in powdered geological and environmental samples using isotope dilution laser ablation ICP-MS, 291

Isotope dilution technique

Isotope dilution technique for quantitative analysis of endogenous trace element species in biological systems, 217

Isotope dilution

Measurement of plutonium isotope ratios in nuclear fuel samples by HPLC-MC-ICP-MS, 197

Isotope fractionation

Deciphering the iron isotope message of the human body, 117

Isotope mass-spectrometry

Absolute sulfur isotope amount ratios in two batches of high purity SO_2 gas: sulfur isotope reference materials IRMM-2012 and IRMM-2013, 303

Isotope ratio measurements

Recent developments in isotope ratio measurements by resonance ionization mass spectrometry, 161

Inductively coupled plasma mass spectrometry (ICP-MS) and laser ablation ICP-MS for isotope analysis of long-lived radionuclides, 183 Multiple ion counting ICPMS double spike method for precise U isotopic analysis at ultra-trace levels, 211

Laser ablation inductively coupled plasma mass spectrometry for direct isotope ratio measurements on solid samples, 273

Determination of uranium isotopic ratios in biological samples using laser ablation inductively coupled plasma double focusing sector field mass spectrometry with cooled ablation chamber, 297

Isotope ratio

Measurement of plutonium isotope ratios in nuclear fuel samples by HPLC-MC-ICP-MS, 197

Isotope ratios on transient signals with GC-MC-ICP-MS, 233

ICP-MS-based tracing of metal sources and mobility in a soil depth profile via the isotopic variation of Sr and Pb, 243

Isotope reference materials

Silicon isotope amount ratios and molar masses for two silicon isotope reference materials: IRMM-018a and NBS28, 319

Isotopic reference materials

Absolute sulfur isotope amount ratios in two batches of high purity ${\rm SO}_2$ gas: sulfur isotope reference materials IRMM-2012 and IRMM-2013, 303

LA-ICP-IDMS

Direct determination of halogens in powdered geological and environmental samples using isotope dilution laser ablation ICP-MS, 291

LA-ICP-MS

Investigation of Cu-, Zn- and Fe-containing human brain proteins using isotopic-enriched tracers by LA-ICP-MS and MALDI-FT-ICR-MS, 135

Determination of uranium isotopic ratios in biological samples using laser ablation inductively coupled plasma double focusing sector field mass spectrometry with cooled ablation chamber, 297

Laser ablation ICP-MS

Inductively coupled plasma mass spectrometry (ICP-MS) and laser ablation ICP-MS for isotope analysis of long-lived radionuclides, 183

Laser ablation inductively coupled plasma mass spectrometry

Laser ablation inductively coupled plasma mass spectrometry for direct isotope ratio measurements on solid samples, 273

Laser desorption/ionisation (LDI)

2,5-Dihydroxybenzoic acid: laser desorption/ionisation as a function of elevated temperature, $13\,$

LA-SF-ICPMS

Lead isotope ratio measurements in geological glasses by laser ablation-sector field-ICP mass spectrometry (LA-SF-ICPMS), 281

Long-lived radioisotope analysis

Progress in isotope analysis at ultra-trace level by AMS, 145

Long-lived radionuclides

Recent developments in isotope ratio measurements by resonance ionization mass spectrometry, 161

Inductively coupled plasma mass spectrometry (ICP-MS) and laser ablation ICP-MS for isotope analysis of long-lived radionuclides, 183

Low sulfur

Determination of sulfur isotope abundance ratios for SI-traceable low sulfur concentration measurements in fossil fuels by ID-TIMS, 309

MALDI-FTICR-MS

Investigation of Cu-, Zn- and Fe-containing human brain proteins using isotopic-enriched tracers by LA-ICP-MS and MALDI-FT-ICR-MS, 135

Mass bias correction

Laser ablation inductively coupled plasma mass spectrometry for direct isotope ratio measurements on solid samples, 273

Mass spectrometry

2,5-Dihydroxybenzoic acid: laser desorption/ionisation as a function of elevated temperature, 13

Recent developments in isotope ratio measurements by resonance ionization mass spectrometry, 161

Subject index 327

Matrix effects

An assessment of the accuracy of stable Fe isotope ratio measurements on samples with organic and inorganic matrices by high-resolution multicollector ICP-MS, 257

Matrix-assisted laser desorption/ionisation (MALDI)

2,5-Dihydroxybenzoic acid: laser desorption/ionisation as a function of elevated temperature, 13

MC-ICP-MS

Measurement of plutonium isotope ratios in nuclear fuel samples by HPLC-MC-ICP-MS, 197

Isotope ratios on transient signals with GC-MC-ICP-MS, 233

Mechanisms

Exploring the potential energy surface of ion-molecule pairs by experiment and by theory: acetaldehyde and methanol, 75

Mercury

Isotope dilution quantification of $^{200}\text{Hg}^{2+}$ and $\text{CH}_3^{201}\text{Hg}^+$ enriched species-specific tracers in aquatic systems by cold vapor ICPMS and algebraic de-convoluting, 225

Metal-containing brain proteins

Investigation of Cu-, Zn- and Fe-containing human brain proteins using isotopic-enriched tracers by LA-ICP-MS and MALDI-FT-ICR-MS, 135

Metals

ICP-MS-based tracing of metal sources and mobility in a soil depth profile via the isotopic variation of Sr and Pb, 243

Metastable ion

Loss of benzene from methylphenylsilane and dimethylphenylsilane molecular cations, ${\bf 5}$

Methylmercury

Isotope dilution quantification of ²⁰⁰Hg²⁺ and CH₃²⁰¹Hg⁺ enriched species-specific tracers in aquatic systems by cold vapor ICPMS and algebraic de-convoluting, 225

Methylphenylsilane ion

Loss of benzene from methylphenylsilane and dimethylphenylsilane molecular cations, 5

Microbe

TIGER: the universal biosensor, 23

Molar mass

Silicon isotope amount ratios and molar masses for two silicon isotope reference materials: IRMM-018a and NBS28, 319

Monomer composition

A novel method for the analysis of the substitution pattern of O-methyl- $\alpha\text{-}$ and $\beta\text{-}1,4\text{-}glucans$ by means of electrospray ionisation-mass spectrometry/collision induced dissociation, 63

MPI-DING reference glasses

Lead isotope ratio measurements in geological glasses by laser ablation-sector field-ICP mass spectrometry (LA-SF-ICPMS), 281

Multi-collector ICP-mass spectrometry

Determination of the ⁸⁷Sr/⁸⁶Sr isotope ratio in USGS silicate reference materials by multi-collector ICP–mass spectrometry, 251

Multicollector ICP-MS

An assessment of the accuracy of stable Fe isotope ratio measurements on samples with organic and inorganic matrices by high-resolution multicollector ICP-MS, 257

Multicollector inductively coupled plasma mass spectrometry

Multiple ion counting ICPMS double spike method for precise U isotopic analysis at ultra-trace levels, 211

Multicollector isotope ratio mass spectrometry

The development of multiple collector mass spectrometry for isotope ratio measurements, 97

Multicollector-ICP-MS

Deciphering the iron isotope message of the human body, 117

Nuclear fuel

Measurement of plutonium isotope ratios in nuclear fuel samples by HPLC-MC-ICP-MS, 197

O-Methyl glucans

A novel method for the analysis of the substitution pattern of O-methyl- α - and β -1,4-glucans by means of electrospray ionisation-mass spectrometry/collision induced dissociation, 63

Organic acid

2,5-Dihydroxybenzoic acid: laser desorption/ionisation as a function of elevated temperature, 13

Osmium

FT-ICR MS studies of ion-molecule reactions of Ru⁺ and Os⁺ with oxygen, 87

1,3,4-Oxadiazoles

Mass spectrometric decomposition of N-arylbenzonitrilium ions, 1 xide

Gas phase antimony/tungsten/oxygen cluster cations, 57

Pathogen detection

TIGER: the universal biosensor, 23

Pb isotopes

Lead isotope ratio measurements in geological glasses by laser ablation-sector field-ICP mass spectrometry (LA-SF-ICPMS), 281

Penning trap

FT-ICR MS studies of ion-molecule reactions of Ru^{+} and Os^{+} with oxygen, $87\,$

Plutonium

Measurement of plutonium isotope ratios in nuclear fuel samples by HPLC-MC-ICP-MS, 197

Powdered samples

Direct determination of halogens in powdered geological and environmental samples using isotope dilution laser ablation ICP-MS, 291

Proton-transport catalysis

The acid-catalyzed rearrangement ${\rm CH_3O^{\bullet}\,A}$ $^{\bullet}{\rm CH_2OH}$ and its involvement in the dissociation of the methanol dimer radical cation, 49

Pu isotopes

Determination of ⁹⁰Sr and Pu isotopes in contaminated groundwater samples by inductively coupled plasma mass spectrometry, 203

Rearrangement

Exploring the potential energy surface of ion-molecule pairs by experiment and by theory: acetaldehyde and methanol, 75

Reference procedure

Determination of sulfur isotope abundance ratios for SI-traceable low sulfur concentration measurements in fossil fuels by ID-TIMS, 309

Resonance ionization spectroscopy

Recent developments in isotope ratio measurements by resonance ionization mass spectrometry, 161

Ruthenium

FT-ICR MS studies of ion-molecule reactions of Ru⁺ and Os⁺ with oxygen, 87

Secondary ion mass spectrometry

Isotope ratio measurements by secondary ion mass spectrometry (SIMS) and glow discharge mass spectrometry (GDMS), 169

Si isotope abundances

Silicon isotope amount ratios and molar masses for two silicon isotope reference materials: IRMM-018a and NBS28, 319

Silicate reference materials

Determination of the ⁸⁷Sr/⁸⁶Sr isotope ratio in USGS silicate reference materials by multi-collector ICP–mass spectrometry, 251

Silicon tetra-fluoride

Silicon isotope amount ratios and molar masses for two silicon isotope reference materials: IRMM-018a and NBS28, 319

Silicon

Silicon isotope amount ratios and molar masses for two silicon isotope reference materials: IRMM-018a and NBS28, 319

328 Subject index

Soil science

ICP-MS-based tracing of metal sources and mobility in a soil depth profile via the isotopic variation of Sr and Pb, 243

Solvated distonic ions

The acid-catalyzed rearrangement CH_3O^{\bullet} A ${}^{\bullet}CH_2OH$ and its involvement in the dissociation of the methanol dimer radical cation, 49

Speciation

Isotope dilution technique for quantitative analysis of endogenous trace element species in biological systems, 217

Sr resin

Determination of the ⁸⁷Sr/⁸⁶Sr isotope ratio in USGS silicate reference materials by multi-collector ICP–mass spectrometry, 251

87Sr/86Sr isotope ratio determination

Determination of the ⁸⁷Sr/⁸⁶Sr isotope ratio in USGS silicate reference materials by multi-collector ICP–mass spectrometry, 251

⁹⁰Sr

Determination of ⁹⁰Sr and Pu isotopes in contaminated groundwater samples by inductively coupled plasma mass spectrometry, 203

Stable isotope fractionation

An assessment of the accuracy of stable Fe isotope ratio measurements on samples with organic and inorganic matrices by high-resolution multicollector ICP-MS, 257

Structure

Exploring the potential energy surface of ion-molecule pairs by experiment and by theory: acetaldehyde and methanol, 75

Sublimation

2,5-Dihydroxybenzoic acid: laser desorption/ionisation as a function of elevated temperature, 13

Substitution pattern

A novel method for the analysis of the substitution pattern of O-methyl- α - and β -1,4-glucans by means of electrospray ionisation-mass spectrometry/collision induced dissociation, 63

Sulfur

Absolute sulfur isotope amount ratios in two batches of high purity ${\rm SO}_2$ gas: sulfur isotope reference materials IRMM-2012 and IRMM-2013, 303

Thermal desorption

2,5-Dihydroxybenzoic acid: laser desorption/ionisation as a function of elevated temperature, 13

Thermal ionization

The development of multiple collector mass spectrometry for isotope ratio measurements, 97

Time-of-flight mass spectrometry

Gas phase antimony/tungsten/oxygen cluster cations, 57

TIMS

Deciphering the iron isotope message of the human body, 117 Determination of sulfur isotope abundance ratios for SI-traceable low sulfur concentration measurements in fossil fuels by ID-TIMS, 309

Trace-matrix separation

Determination of ⁹⁰Sr and Pu isotopes in contaminated groundwater samples by inductively coupled plasma mass spectrometry, 203

Tracer experiments

Investigation of Cu-, Zn- and Fe-containing human brain proteins using isotopic-enriched tracers by LA-ICP-MS and MALDI-FT-ICR-MS, 135 Transient signals

Isotope ratios on transient signals with GC-MC-ICP-MS, 233

Tungsten

Gas phase antimony/tungsten/oxygen cluster cations, 57

Ultratrace detection

Recent developments in isotope ratio measurements by resonance ionization mass spectrometry, 161

Uranium

Multiple ion counting ICPMS double spike method for precise U isotopic analysis at ultra-trace levels, 211

Determination of uranium isotopic ratios in biological samples using laser ablation inductively coupled plasma double focusing sector field mass spectrometry with cooled ablation chamber, 297

USGS reference materials

Lead isotope ratio measurements in geological glasses by laser ablation-sector field-ICP mass spectrometry (LA-SF-ICPMS), 281

USGS

Determination of the ⁸⁷Sr/⁸⁶Sr isotope ratio in USGS silicate reference materials by multi-collector ICP-mass spectrometry, 251

Zooplankton

Isotope dilution quantification of $^{200}\text{Hg}^{2+}$ and $\text{CH}_3^{201}\text{Hg}^+$ enriched species-specific tracers in aquatic systems by cold vapor ICPMS and algebraic de-convoluting, 225