Elfinn Larsen - Research outputs - DTU Orbit (13/04/2019)

**High tar reduction in a two-stage gasifier**

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy, Department of Energy Engineering, Brandt Development
Contributors: Brandt, P., Larsen, E., Henriksen, U. B.
Pages: 816-819
Publication date: 2000
Peer-reviewed: Yes

**Publication information**
Journal: Energy & Fuels
Volume: 14
Issue number: 4
ISSN (Print): 0887-0624
Ratings:
Web of Science (2000): Indexed yes
Original language: English
DOIs:
10.1021/ef990182m
Source: orbit
Source-ID: 177264
Research output: Contribution to journal › Journal article – Annual report year: 2000 › Research › peer-review

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**Kemi i relation til tjærestoffer fra forgassere**

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E.
Publication date: 1999
Peer-reviewed: No
Event: Abstract from Kollokvium på Institut for Energiteknik, Danmarks Tekniske Universitet, Lyngby (DK), 1 Dec, .
Source: orbit
Source-ID: 299581
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 1999 › Research

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**Tjære- og kemianalyser**

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E.
Publication date: 1999
Peer-reviewed: No
Source: orbit
Source-ID: 299582
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 1999 › Research

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**Uorganiske forureninger i fisk og muslinger**

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E.
Pages: 44-47
Publication date: 1999

**Host publication information**
Title of host publication: Slutrapport for FIUF-projektet: Restkoncentrationer i fisk
Place of publication: København
Uorganiske forureninger i muslinger og ørreder

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E.
Pages: 55-56
Publication date: 1999

Host publication information
Title of host publication: Slutrapport for FIUF-projektet: Restkoncentrationer i fisk
Place of publication: København
Publisher: Fødevaredirektoratet, Institut for Fødevareundersøgelser og Ernæring
Editors: Pedersen, C., Kristensen, T.
Source: orbit
Source-ID: 299080

Application of HR-ICPMS for the measurement of trace elements in mussels

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Vinther Kristensen, L., Stürup, S., Larsen, E.
Number of pages: 107
Publication date: 1998

Host publication information
Title of host publication: The 10. Nordic conference on mass spectrometry and Workshop on mass spectrometry
Place of publication: Umeå
Publisher: Umeå University
Source: orbit
Source-ID: 298158

Determination of trace elements in mussels by Q-ICPMS and HR-ICPMS

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Stürup, S., Larsen, E.
Publication date: 1998
Peer-reviewed: No
Source: orbit
Source-ID: 297629
Research output: Contribution to conference – Conference abstract for conference – Annual report year: 1998 – Research

Identification of methoxycarbenes in premixed flames of oxygenated fuels by ion/molecule reactions

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Sehested, J., Nielsen, O.
Stable isotope dilution analysis of tar constituents

The chemical origin of the tar constituents

Tjærevand kontra tjæregas
Characterization of tar by flash pyrolysis and GC/MS

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Number of pages: 969
Publication date: 1997

Host publication information
Title of host publication: Proceedings of the 45th ASMS conference on mass spectrometry and allied topics
Place of publication: Palm Springs
Publisher: American Society for Mass Spectrometry
Source: orbit
Source-ID: 295995
Research output: Chapter in Book/Report/Conference proceeding – Annual report year: 1997 › Research

ICP-MS elemental trace analysis of marine samples

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Stürup, S., Behrens, A., Larsen, E.
Number of pages: 83
Publication date: 1997

Host publication information
Title of host publication: Abstracts of papers presented at the 14th international mass spectrometry conference. Book of abstracts
Place of publication: Helsinki
Publisher: IMSC
Editors: Karjalainen, E., Hesso, A., Jalonen, J., Karjalainen, U.
ISBN (Print): 951-9223-42-8
Source: orbit
Source-ID: 296858
Research output: Chapter in Book/Report/Conference proceeding – Annual report year: 1997 › Research

Nobelprisen 1996 i kemi

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E., Egsgaard, H.
Pages: 8-10
Publication date: 1997
Peer-reviewed: No

Publication information
Journal: dansk kemi
Volume: 78
Issue number: 2
Original language: Danish
Source: orbit
Source-ID: 297277
Research output: Contribution to journal › Journal article – Annual report year: 1997 › Research

Tar reduction by partial oxidation
ICP-MS til bestemmelse af restkoncentrationer i levnedsmidler

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Stürup, S., Larsen, E., Vinther Kristensen, L.
Pages: 25-28
Publication date: 1996
Peer-reviewed: No

**Publication information**
Journal: dansk kemi
Volume: 77
Issue number: 8
Original language: Danish
Source: orbit
Source-ID: 295141
Research output: Contribution to journal › Journal article – Annual report year: 1996 › Research

Intermediates in dimethyl ether flames

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Sehested, J., Nielsen, O.
Publication date: 1996
Peer-reviewed: No
Event: Abstract from Joint meeting of the Portuguese, British, Spanish and Swedish sections of the Combustion Institute, Funhcal, Madeira (PT), 1-4 Apr, .
Source: orbit
Source-ID: 295633
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 1996 › Research

Syntese af deuterium-mærkede forbindelser til FØTEK projektet

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Jørgensen, O., Egsgaard, H., Larsen, E.
Pages: 12-14
Publication date: 1996
Peer-reviewed: No

**Publication information**
Journal: dansk kemi
Volume: 77
Issue number: 6/7
Original language: Danish
Source: orbit
Source-ID: 295497
Research output: Contribution to journal › Journal article – Annual report year: 1996 › Research

Synthesis of deuterated clenbuterol

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Jørgensen, O., Egsgaard, H., Larsen, E.
Pages: 1007-1014
Publication date: 1996
Peer-reviewed: No
ICP-MS analysis of pig's blood

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Behrens, A., Vinther Kristensen, L., Solgaard, P., Larsen, E.
Number of pages: 380
Publication date: 1994

Host publication information
Title of host publication: 13th international mass spectrometry conference. Book of abstracts
Place of publication: Budapest
Publisher: IMSC
Source: orbit
Source-ID: 292413
Research output: Chapter in Book/Report/Conference proceeding – Conference abstract in proceedings – Annual report year: 1994 – Research

Ionic reaction mechanisms in pre-mixed flames disclosed by stable-isotope labelling

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Vinther Kristensen, L., Solgaard, P., Carlsen, L.
Pages: 605-608
Publication date: 1994
Peer-reviewed: Yes

Publication information
Journal: Analyst
Volume: 119
ISSN (Print): 0003-2654
Original language: English
Source: orbit
Source-ID: 291872

Oxygen atom exchange in aqueous solution by O\(^{2-}\)+H\(_2\)O→OH\(^-\)+OH and OH+H\(_2\)O→H\(_2\)O+OH. A study of hydrogen atom transfer

General information
Publication status: Published
Organisations: Rise National Laboratory for Sustainable Energy
Contributors: Klæning, U., Larsen, E., Sehested, K.
Pages: 8946-8951
Publication date: 1994
Peer-reviewed: No

Publication information
Volume: 98
Tandem mass spectrometry directed to flame studies

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E., Skovhus Thomsen, M., Egsgaard, H.
Number of pages: 271
Publication date: 1994

Host publication information
Title of host publication: 25th international symposium on combustion. Abstracts of work-in-progress poster. Session presentations
Place of publication: Pittsburgh, PA
Publisher: The Combustion Institute
Source: orbit
Source-ID: 292410
Research output: Chapter in Book/Report/Conference proceeding – Conference abstract in proceedings – Annual report year: 1994 – Research

Ionic reaction mechanisms in premixed flames disclosed by stable-isotope labelling

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Vinter Kristensen, L., Solgaard, P., Carlsen, L.
Publication date: 1993
Peer-reviewed: No
Source: orbit
Source-ID: 290959
Research output: Contribution to conference – Conference abstract for conference – Annual report year: 1993 – Research

Release of thiurams and carbamates from rubber gloves

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Knudsen, B., Larsen, E., Egsgaard, H., Menné, T.
Pages: 63-69
Publication date: 1993
Peer-reviewed: Yes

Publication information
Journal: Contact Dermatitis
Volume: 28
ISSN (Print): 0105-1873
Original language: English
Source: orbit
Source-ID: 291247

Analysis of antioxidants in polymer material by a strategy employing tandem mass spectrometry and liquid chromatography

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Pedersen, W. B., Carlsen, L.
C60/C70, fysik og kemi

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E., Egsgaard, H., Skytte Jensen, B., Bohr, J.
Pages: 10-13
Publication date: 1992
Peer-reviewed: No

Hvad er Buckminsterfulleren eller C60?

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E.
Publication date: 1992
Peer-reviewed: No
Source: orbit
Source-ID: 290021
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 1992 › Research

Hvad er Buckminsterfulleren eller C60?

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E.
Publication date: 1992
Peer-reviewed: No
Event: Abstract from Jydsk Selskab for Fysik og Kemi, Kemisk Institut, Aarhus (DK), 19 Mar.
Source: orbit
Source-ID: 290389
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 1992 › Research

ICP-MS, INAA and PIXE analysis of airborne dust samples

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E., Hansen, A., Vinther Kristensen, L., Solgaard, P., Damsgaard, E., Heydorn, K., Kemp, K.
Pages: 43-54
Kulstof-60

Order, disorder and structure of crystals of C_{60}/C_{70}

Buckminsterfulleren - en ny slags kulstof
Characterization of five glucosinolates by fast atom bombardment mass spectrometry and collision activation of [M - H]⁻¹

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Bojesen, G., Larsen, E.
Pages: 286-288
Publication date: 1991
Peer-reviewed: Yes

Publication information
Journal: Biological Mass Spectrometry
Volume: 20
Original language: English
Source: orbit
Source-ID: 289402
Research output: Contribution to journal › Journal article – Annual report year: 1991 › Research › peer-review

Elemental composition of airborne dust in the shale shaker house during an offshore drilling operation
During 2 days of an offshore drilling operation in the North Sea, 16 airborne dust samples from the atmosphere of the Shale Shaker House were collected onto filters. During this operation, drilling mud composed of a water slurry of barite (BaSO₄) together with minor amounts of additives, among them chrome lignosulphonate and chrome lignite, was circulated between the borehole and the Shale Shaker House. The concentration of airborne dust in the atmosphere was determined and the elemental composition of the particles analysed by both PIXE (proton-induced X-ray emission) and ICP-MS (inductively coupled plasma-mass spectrometry). The total amount of dust collected varied from 0.04 to 1.41 mg m⁻³ with barium (Ba) as the single most abundant element. The open shale shakers turned out to be the major cause of generation of dust from the solid components of the drilling mud.

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Pages: 651-657
Publication date: 1991
Peer-reviewed: No

Publication information
Journal: Annals of Work Exposures and Health
Volume: 35
Issue number: 6
ISSN (Print): 2398-7308
Original language: English
DOIs: 10.1093/annhyg/35.6.651
Source: orbit
Source-ID: 289079
Research output: Contribution to journal › Journal article – Annual report year: 1991 › Research
Flame studies on the VG plasmaquad

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Solgaard, P., Vinther Kristensen, L., Carlsen, L.
Number of pages: 265
Publication date: 1991

**Host publication information**
Title of host publication: Extended abstracts of papers presented at the 12. international mass spectrometry conference
Place of publication: Amsterdam
Publisher: IMSC
Source: orbit
Source-ID: 288928
Research output: Chapter in Book/Report/Conference proceeding – Article in proceedings – Annual report year: 1991 – Research

Multielementanalyse ved plasmaquadrupol instrument

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Vinther Kristensen, L., Larsen, E., Solgaard, P.
Pages: 402-404
Publication date: 1991
Peer-reviewed: No

**Publication information**
Journal: dansk kemi
Volume: 72
Original language: Danish
Source: orbit
Source-ID: 289182
Research output: Contribution to journal – Journal article – Annual report year: 1991 – Research

Release of thiurams and carbamates from protective gloves to artificial sweat

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Knudsen, B., Larsen, E.
Number of pages: 44
Publication date: 1991

**Host publication information**
Title of host publication: Extended abstracts of papers presented at the 12. international mass spectrometry conference
Place of publication: Amsterdam
Publisher: IMSC
Source: orbit
Source-ID: 288927
Research output: Chapter in Book/Report/Conference proceeding – Article in proceedings – Annual report year: 1991 – Research

Wax precipitation from North Sea crude oils. 2. Solid-phase content as function of temperature determined by pulsed NMR

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Pedersen, W., Hansen, A., Larsen, E., Nielsen, A.
Pages: 908-913
Publication date: 1991
Wax precipitation from North Sea crude oils. 3. Precipitation and dissolution of wax studied by differential scanning calorimetry

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Hansen, A., Larsen, E., Pedersen, W., Nielsen, A.
Pages: 914-923
Publication date: 1991
Peer-reviewed: No

Chemistry Department. Annual report 1989
This report contains a brief survey of the main activities in the Chemistry Department. The names and abstracts of all articles and reports published and lectures given in 1989 are presented. The facilities and equipment are mentioned briefly. The activities are divided into the following groups: radioisotope chemistry, analytical- and organic chemistry, environmental chemistry, polymer chemistry, chemical reactivity, mineral processing, and general.

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Number of pages: 82
Publication date: 1990

Contact dermatitis from Naphthol AS

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Roed-Petersen, J., Pedersen, W. B., Larsen, E.
Pages: 161-163
Publication date: 1990
Peer-reviewed: Yes
Extraction and patch testing of methylcinnamate, a newly recognized fraction of Balsam of Peru

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Oxholm, A., Heidenheim, M., Larsen, E., Pedersen, W. B., Menné, T.
Pages: 43-46
Publication date: 1990
Peer-reviewed: No

10-år med tandem massespektrometri

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Carlsen, L.
Pages: 227-231
Publication date: 1989
Peer-reviewed: No

Chemistry Department. Annual Report 1988

This report contains a brief survey of the main activities in the Chemistry Department. The names and abstracts of all articles and reports published and lectures given in 1988 are presented. The facilities and equipment are mentioned briefly. The activities are divided into the following groups: radioisotope chemistry, analytical- and organic chemistry, environmental chemistry, polymer chemistry, chemical reactivity, mineral processing, and general.

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Funck, J., Neve Larsen, Å., Larsen, E., Nielsen, O. J.
Number of pages: 70
Publication date: 1989
Collision Activation of Glucosinolate Anions

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Bojesen, G., Larsen, E., Shukla, V.
Pages: 1404-1405
Publication date: 1989

Host publication information
Title of host publication: Advances in Mass Spectrometry. Vol. 11B
Place of publication: London
Publisher: Heyden and Son
Editor: Longevialle, P.
Source: orbit
Source-ID: 288165
Research output: Chapter in Book/Report/Conference proceeding – Article in proceedings – Annual report year: 1989 – Research

Evaluation of Automated Determination of Nitrogen-15 by On-Line Combustion

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Jensen, E.
Pages: 345-349
Publication date: 1989
Peer-reviewed: No

Publication information
Journal: Analytica Chimica Acta
Volume: 226
Issue number: 2
ISSN (Print): 0003-2670
Original language: English
Source: orbit
Source-ID: 288256
Research output: Contribution to journal – Journal article – Annual report year: 1989 – Research

ICP-MS and PIXE Analysis of Elements Collected as Air-Borne Dust

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Pages: 657
Publication date: 1989
Peer-reviewed: Yes

Publication information
Journal: Fresenius' Zeitschrift für Analytische Chemie
Volume: 334
ISSN (Print): 0016-1152
Original language: English
ICP-MS, Measurement of Nickel

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Vinther Kristensen, L., Larsen, E., Solgaard, P.
Pages: 1698-1699
Publication date: 1989

Host publication information
Title of host publication: Advances in Mass Spectrometry. Vol. 11B
Place of publication: London
Publisher: Heyden and Son
Editor: Longevialle, P.
Source: orbit
Source-ID: 288166

On Selenoketenes. Formation of 1,3,4-Selenadiazoline from Carbon Diselenide and Diazoalkanes

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Berg, R., Harrit, N., Larsen, E., Holm, A.
Pages: 885-887
Publication date: 1989
Peer-reviewed: No

Publication information
Volume: 43
Original language: English
Source: orbit
Source-ID: 288282

Chemistry Department. Annual Report 1987

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Number of pages: 68
Publication date: 1988

Publication information
ISBN (Print): 87-550-1410-0
Original language: English
(Risø-M; No. 2700)
Keywords: Risø-M-2700
Source: orbit
Source-ID: 287978
Research output: Book/Report › Report – Annual report year: 1988 › Research

Mass Spectrometry of Underivatized 15-Hydroxyeicosatetraenolic Acid and 15-Hydroxyeicosapentaenolic Acid

General information
Publication status: Published
Kemiafdelingen, Risø

Long-Term Stability of a Gas Chromatography/Mass Spectrometry System in Quantitative Gas Analysis

Pigmenteret kontaktdermatitis

Chemistry Department. Annual Report 1985
General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Number of pages: 62
Publication date: 1986

Publication information
Place of publication: Roskilde
Publisher: Risø National Laboratory
Original language: English
(Keywords: Risø-M-2565).
Source: orbit
Source-ID: 279734
Research output: Book/Report › Report – Annual report year: 1986 › Research

Massespektromi i Danmark. Før og nu

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E.
Publication date: 1986
Peer-reviewed: No

Publication information
Original language: Danish
Source: orbit
Source-ID: 287221
Research output: Contribution to journal › Journal article – Annual report year: 1987 › Research

Annual Report 1984. Chemistry Department
This report contains a brief survey of the main activities in the Chemistry Department. All articles and reports published and lectures given in 1984 are presented. The facilities and equipment are mentioned briefly. The activities are divided into the following groups: radioisotope chemistry, analytical- and organic chemistry, environmental chemistry, polymer chemistry, geochemistry and waste disposal, radical chemistry, positron annihilation, mineral processing, and general.

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Funck, J., Larsen, E. (ed.), Nielsen, O. J.
Number of pages: 52
Publication date: 1985

Publication information
Place of publication: Roskilde
Publisher: Risø National Laboratory
ISBN (Print): 87-550-1101-2
Original language: English
(Keywords: Risø-M-2497).
Keywords: Atmospheric chemistry, Bibliographies, Chemical analysis, Chemical reaction kinetics, Geochemistry, Neutron activation analysis, Ore processing, Photochemistry, Polymers, Position, Raman spectra, Resonance scattering, Risoe National Laboratory, Uranium ores, Waste management
Electronic versions:
80DFCd01.pdf
Source: orbit
Source-ID: 279791
Research output: Book/Report › Report – Annual report year: 1985 › Research

Contact Sensitivity and Bioavailability of Chlorocresol
Chlorocresol sensitization from 5 topical preparations was determined in guinea pigs using the cumulative contact enhancement test. Chlorocresol 5% in olive oil/acetone (4/1), and 5% in aqueous suspension stabilized with carboxer 941 were more sensitizing (55% and 60% of the animals positive, respectively) then chlorocresol 5% in propylene glycol with
or without carbomer 941 (20% positive). The sensitization from a saturated aqueous chlorocresol solution (about 0.38% w/v) was comparable to that of a 5% propylene glycol solution containing 13 times more chlorocresol. The fraction of the applied dose (from each preparation) that remained in the bandage material and the patch test skin site was determined by combined gas chromatography-mass spectrometry using an isotopic dilution technique. From 0.2% to 1.6% of the applied doses remained at the patch test skin sites as free chlorocresol. 75% of the chlorocresol in aqueous suspension permeated the skin in contrast to 34% and 35% of the chlorocresol in olive oil/acetone (4/1) and propylene glycol, respectively. In spite of the same amount of chlorocresol absorption from the 2 latter preparations, they showed a significant difference in sensitizing capacity. No simple relationship between the sensitization rates and the calculated bioavailability was observed with the preparations tested.

General information
Publication status: Published
Organisations: Biomass Gasification, Biosystems Division, Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Carlsen, L., Andersen, K. E.
Pages: 246-251
Publication date: 1985
Peer-reviewed: Yes

Publication information
Journal: Contact Dermatitis
Volume: 13
Issue number: 4
ISSN (Print): 0105-1873
Original language: English
Source: orbit
Source-ID: 286956
Research output: Contribution to journal › Journal article – Annual report year: 1985 › Research › peer-review

The Determination of Polyethylene Glycol in Untreated Urine Samples by High Performance Liquid Chromatography for Intestinal Permeability Studies
Polyethylene glycol in urine samples has been investigated by high performance liquid chromatography. The molecular weights ranged from 634 to 1338. The urine samples were applied to the chromatographic system without any pre-treatment. For samples with a concentration of 0.2% polyethylene glycol a relative standard deviation of 2% was obtained at best. Twenty-six volunteers ingested ten grams of polyethylene glycol and the amount excreted in the urine during the first 6 hours was measured. The recoveries of the individual oligomers were found to be in accordance with those previously published where an extraction procedure was included. The mean recovery was 12.2 .+-. 0.08% for polyethylene glycol with MW = 634 decreasing to 2.1 .+-. 0.3% for MW = 1206.

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy, Solar Energy Programme
Contributors: Larsen, E., Pedersen, W. B., Philipsen, E.
Pages: 255-271
Publication date: 1985
Peer-reviewed: Yes

Publication information
Journal: Journal of Trace and Microprobe Techniques
Volume: 3
Issue number: 3
ISSN (Print): 0733-4680
Original language: English
Source: orbit
Source-ID: 312427
Research output: Contribution to journal › Journal article – Annual report year: 1985 › Research › peer-review

Intercomparison of 11 Mass Spectrometers Applied for Quantitative Organic Analysis in Denmark

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Flachs, H., Larsen, E., Schroll, G.
Pages: 545-548
Publication date: 1984
Peer-reviewed: Yes
Determination of the Isotopic Composition of Oxygen by Electron Spin Resonance Spectrometry

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Bjerre, N., Larsen, E.
Pages: 2236-2238
Publication date: 1983
Peer-reviewed: Yes

Direct Determination of 18O Enriched in KC103 by Pyrolysis-Gas Chromatography-Mass Spectrometry

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E., Egsgaard, H., Bjerre, N.
Pages: 387-397
Publication date: 1983
Peer-reviewed: Yes

Electron Impact Induced Reactions of Ethyl Acetate and Its Sulphur Analogues

The electron impact induced reactions of ethyl acetate and its sulphur analogues have been studied by application of collision activation mass spectrometry and isotopic labelling with H-2 and O-18. The [M-C2H4]+, [M-CH3]+ and [M-H2O]+ were selected for detailed investigations.

General information
Publication status: Published
Organisations: Biomass Gasification, Biosystems Division, Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Carlsen, L.
Pages: 359-362
Publication date: 1983
Peer-reviewed: Yes
Mass Spectrometric Measurement of Fission Gas from Nuclear Fuel

**General information**
Publication status: Published
Organisations: Biomass Gasification, Biosystems Division, Risø National Laboratory for Sustainable Energy, Electrochemistry, Fuel Cells and Solid State Chemistry Division
Contributors: Egsgaard, H., Larsen, E., Mogensen, M. B.
Pages: 385-388
Publication date: 1983
Peer-reviewed: Yes

Mass Spectrometry of Halopyrazolium Salts

Eleven halogen substituted 1-methyl-2-phenylpyrazolium bromides or chlorides were investigated by field desorption, field ionization, and electron impact mass spectrometry. Dealkylation was found to be the predominant thermal decomposition. An exchange between covalent and ionic halogen prior to dealkylation was observed and is discussed in detail.

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy, Biomass Gasification, Biosystems Division
Contributors: Larsen, E., Egsgaard, H., Pande, U. C., Begtrup, M.
Pages: 52-56
Publication date: 1983
Peer-reviewed: No

Oral Supplementation of Myoinositol: Effects on Peripheral nerve Function in Human Diabetics and on the Concentration in Plasma Erythrocytes, Urine and Muscle Tissue in Human Diabetics and Normals

28 young diabetics with short disease duration participated in a double-blind study by taking 6 g of myoinositol or placebo daily for 2 months. The aim was to demonstrate a possible beneficial effect of this compound on subclinical diabetic neuropathy. Measurement of vibratory perception threshold, motor and sensory conduction velocity and amplitude of nerve potential did not disclose any effect of the myoinositol given. In accordance with this, no indication for a lack of myoinositol in human diabetic blood or tissue could be found. The concentration of myoinositol in the plasma and erythrocyte of 4 human diabetics was normal or high, even though the loss of urinary myoinositol was greater than in the case of 4 normals. Further, an analysis of the content of free and lipid-bound myoinositol in muscle biopsies taken from the 4 diabetics did not give any indication of deficiency. The content of myoinositol in their muscle tissue remained

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy, Biomass Gasification, Biosystems Division
Contributors: Larsen, E., Egsgaard, H., Pande, U. C., Begtrup, M.
Pages: 52-56
Publication date: 1983
Peer-reviewed: No
uninfluenced by oral supplementation of myo-inositol.

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Gregersen, G., Bertelsen, B., Harbo, H., Larsen, E., Andersen, J. R., Hellesen, A., Schmiegelov, M., Christensen, J. E.
Pages: 164-172
Publication date: 1983
Peer-reviewed: Yes

**Publication information**
Journal: Acta Neurologica Scandinavica
Volume: 67
Issue number: 3
ISSN (Print): 0001-6314
Original language: English
Source: orbit
Source-ID: 280973
Research output: Contribution to journal › Journal article – Annual report year: 1983 › Research › peer-review

**Slow Alkyl, Alkene, and Alkenyl Loss from Primary Alkylamines. Isomerization of the Low-Energy Molecular-Ions Prior to Fragmentation in the Mu-Sec Timeframe**

**General information**
Publication status: Published
Organisations: Biomass Gasification, Biosystems Division, Risø National Laboratory for Sustainable Energy
Contributors: Hammerum, S., Christensen, J. B., Egsgaard, H., Larsen, E., Derrick, P. J., Donchi, K. F.
Pages: 351-354
Publication date: 1983
Peer-reviewed: Yes

**Publication information**
Journal: International Journal of Mass Spectrometry and Ion Physics
Volume: 47
ISSN (Print): 0020-7381
Original language: English
Source: orbit
Source-ID: 281001
Research output: Contribution to journal › Journal article – Annual report year: 1983 › Research › peer-review

**Gas Chromatographic Mass Spectrometric Determination of Myo-inositol in Humans Utilizing a Deuterated Internal Standard**
The isotopic dilution technique was used for determining the content of myo-inositol in human urine, plasma and haemolysed erythrocyte samples. A deuterated myo-inositol, synthesized from inosose-2 by base-catalysed exchange of hydrogens by deuterium, followed by reduction of the inosose with 2H2, was added as internal standard to the samples at an early stage in the analytical procedure. After separation and derivatization to the hexa-acetate, the gas chromatographic mass spectrometric analysis was carried out. A 25 m fused silica capillary column coated with methyl silicone was used, and the ions selected for monitoring were m/z 210 and m/z 214, which are characteristic and abundant fragment ions from unlabelled and hexadeuterated myo-inositol hexa-acetate, respectively. Calibration curves from water, urine, plasma and haemolysed erythrocytes show parallel, linear responses in the ratio between analyte and internal standard in the area of interest (0.2–2.0).

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Andersen, J. R., Larsen, E., Harbo, H., Bertelsen, B., Christensen, J. E. J., Gregersen, G.
Pages: 135-140
Publication date: 1982
Peer-reviewed: Yes

**Publication information**
Journal: Journal of Mass Spectrometry
Volume: 9
Issue number: 4
GC/MS Assay of Myo-Inositol (as Hexaacetate) in Humans Utilizing a Deuterated Internal Standard

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E., Andersen, J. R., Harbo, H., Bertelsen, B., Christensen, J. E. J., Gregersen, G.
Pages: 605-610
Publication date: 1982

Host publication information
Title of host publication: Stable Isotopes
Place of publication: Amsterdam
Publisher: Elsevier
Editors: Schmidt, H., Förstel, H., Heinzinger, K.


Basic principles, capabilities and limitations of collision activation mass spectrometry are reported, with special reference to real-time analysis of flash vacuum thermolytically generated products. The analytical utility is demonstrated in terms of structure elucidation and isomerization studies. The potential feasibility of the combination pyrolysis-collision activation mass spectrometry in the study of otherwise non-accessible reference structures for gaseous ion investigations is discussed.

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Carlsen, L.
Pages: 33-46
Publication date: 1982
Peer-reviewed: Yes

Publication information
Journal: Journal of Analytical and Applied Pyrolysis
Volume: 4
Issue number: 1
ISSN (Print): 0165-2370
Original language: English
DOIs:
10.1016/0165-2370(82)80025-9
Source: orbit
Source-ID: 313038
Research output: Contribution to journal › Journal article – Annual report year: 1982 › Research › peer-review

Determination of 4-Chloroindoleacetic Acid Methyl Ester in Vicieae Species by Gas Chromatography Mass Spectrometry

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Engvild, K. C., Larsen, E.
Pages: 79-81
Publication date: 1981
Peer-reviewed: Yes

Publication information
Measurements of Low Concentrations of Carbonyl Sulfide

**General information**
- Publication status: Published
- Organisations: Risø National Laboratory for Sustainable Energy
- Contributors: Kamstrup, O., Hugod, C., Larsen, E.
- Pages: 33-38
- Publication date: 1981
- Peer-reviewed: Yes

**Publication information**
- Journal: Beitraege zur Tabakforschung International
  - Volume: 11
  - Issue number: 1
  - ISSN (Print): 0173-783X
  - Original language: English
  - Source: orbit
  - Source-ID: 281354
- Research output: Contribution to journal > Journal article – Annual report year: 1981 > Research > peer-review

N’-Methylnicotinamide in Human Urine

**General information**
- Publication status: Published
- Organisations: Risø National Laboratory for Sustainable Energy
- Contributors: Holmen, H., Egsgaard, H., Funck, J., Larsen, E.
- Pages: 122-124
- Publication date: 1981
- Peer-reviewed: Yes

**Publication information**
- Journal: BIOMEDICAL MASS SPECTROMETRY
  - Volume: 8
  - Issue number: 3
  - ISSN (Print): 0306-042X
  - Original language: English
  - DOIs: 10.1002/bms.1200080308
  - Source: orbit
  - Source-ID: 281344
- Research output: Contribution to journal > Journal article – Annual report year: 1981 > Research > peer-review

Pharmacokinetic Comparison of Seven 8-pethoxyp-soralen Brands

**General information**
- Publication status: Published
- Organisations: Risø National Laboratory for Sustainable Energy
- Contributors: Menne, T., Andersen, K. E., Larsen, E., Solgaard, P. B.
- Pages: 137-140
- Publication date: 1981
- Peer-reviewed: Yes

**Publication information**
- Journal: Acta Dermato Venereologica
  - Volume: 61
  - Issue number: 2
Association of Polycyclic Aromatic Hydrocarbons with Particles in Automobile Exhaust

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Ingwersen, J., Suun Pedersen, P., Nielsen, T., Larsen, E., Fenger, J.
Pages: 248
Publication date: 1980
Peer-reviewed: Yes

Publication information
Journal: Journal of Aerosol Science
Volume: 11
ISSN (Print): 0021-8502
Original language: English
Source: orbit
Source-ID: 282906
Research output: Contribution to journal › Journal article – Annual report year: 1980 › Research › peer-review

Association of Polycyclic Aromatic Hydro-Carbons with Particles in Automobile Exhaust

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Ingwersen, J., Suun Pedersen, J., Nielsen, T., Larsen, E.
Pages: 169-174
Publication date: 1980

Host publication information
Title of host publication: Aerosols in Science, Medicine and Technology: The Biomedical Influence of the Aerosol
Place of publication: Mainz
Publisher: Gesellschaft für Aerosolforschung
Editors: Stöer, W., Jaenicke, J.
Source: orbit
Source-ID: 282907
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1980 › Research

Determination of 4-Chloroindole-3-Acetic Acid Methyl Ester in Lathyrus Vicia and Pisum by Gas Chromatography - Mass Spectrometry
4-Chloroindole-3-acetic acid methyl ester was identified unequivocally in Lathyrus latifolius L., Vicia faba L. and Pisum sativum L. by thin layer chromatography, gas chromatography and mass spectrometry. The gas chromatographic system was able to separate underivatized chloroindole-3-acetic acid methyl ester isomers. The quantitative determination of 4-chloroindole-3-acetic acid methyl ester in immature seeds of these three species was performed by gas chromatography – mass spectrometry using deuterium labelled 4-chloro-indole-3-acetic acid methyl ester as an internal standard. P. sativum contained approximately 25 mg kg⁻¹, V. faba 1–2 mg kg⁻¹ and L. latifolius 2 mg kg⁻¹ dry weight.

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy, Biomass Gasification, Biosystems Division
Contributors: Engvild, K. C., Egsgaard, H., Larsen, E.
Pages: 499-503
Publication date: 1980
Peer-reviewed: Yes

Publication information
Journal: Physiologia Plantarum
Volume: 48
Effects of Fuel, Lubricant, and Engine Operating Parameters on the Emission of Polycyclic Aromatic Hydrocarbons

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Pedersen, P. S., Ingwersen, J., Nielsen, T., Larsen, E.
Pages: 71-79
Publication date: 1980
Peer-reviewed: Yes

Field Ionization Mass Spectrometry as a Facile Method for the Study of the Thermal Formation of Radicals

General information
Publication status: Published
Organisations: Biomass Gasification, Biosystems Division, Risø National Laboratory for Sustainable Energy
Contributors: Møller, J., Pedersen, C. T., Egsgaard, H., Larsen, E.
Pages: 456-458
Publication date: 1980
Peer-reviewed: Yes

N-Nitrosodiethanolamine Revisited
N-nitrosodiethanolamine is believed to be a weakly carcinogenic chemical, and as it occurs widely—in consumer products for example—it may constitute a significant hazard to humans. However, the chemical evidence concerning the identity, purity and properties of N-nitrosodiethanolamine is incomplete, and this casts some doubt on the basis of the current interest in this substance. In the present paper a purification procedure of synthetic N-nitrosodiethanolamine based on high-performance liquid chromatography is given. Other fractionation procedures such as gas liquid chromatography, ambient pressure column chromatography and distillation are shown to be inadequate. The purity and identity of purified N-nitrosodiethanolamine is established by means of electron impact and field ionization mass spectrometry, including metastable defocusing and collision induced decomposition techniques. Furthermore, 1H and 13C nuclear magnetic resonance and, to a lesser extent, infrared and ultraviolet spectroscopy are used. Deuterium labelled analogues of N-nitrosodiethanolamine and the parent diethanolamine are employed in rationalizing the results obtained.
Pharmacokinetic and Clinical Comparison of Two 8-Methoxypsoralen Brands

The Content of Fat and Polyenoic Acids in the Major Food Sources of the Arctic Diet: Localization of Double-Bonds in Fatty-Acids by Means of Mass Spectrometry of Fatty-Acid Pyrrolidides
Bly eller ikke bly igen

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy, National Food Institute
Contributors: Larsen, E., Nielsen, T., Ingwersen, J., Pedersen, P. S., Fenger, J.
Pages: 18
Publication date: 1979
Peer-reviewed: No

Publication information
Journal: Ingeniøren
Volume: 5
Issue number: 5
Original language: Danish
Source: orbit
Source-ID: 284996

Research output: Contribution to journal › Journal article – Annual report year: 1979 › Research

Bly, teknik eller politik?

General information
Publication status: Published
Organisations: National Food Institute, Risø National Laboratory for Sustainable Energy
Pages: 4-5
Publication date: 1979
Peer-reviewed: No

Publication information
Journal: Ingeniøren
Volume: 5
Issue number: 9
Original language: Danish
Source: orbit
Source-ID: 284999

Research output: Contribution to journal › Journal article – Annual report year: 1979 › Research

Hydrocarbon-Rich Fluid Inclusions in Minerals from the Alkaline Illmaussaq Intrusion

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy, Department of Civil Engineering
Contributors: Larsen, E., KonnerupMadsen, J., Rose-Hansen, J.
Pages: 642-653
Publication date: 1979
Peer-reviewed: Yes

Publication information
Journal: BULLETIN DE MINERALOGIE
Volume: 102
Issue number: 5-6
Original language: English
Source: orbit
Source-ID: 284972

Research output: Contribution to journal › Journal article – Annual report year: 1979 › Research › peer-review
Identification of Cyclopentenyl Fatty Acids by Gas Liquid Chromatography and Mass Spectrometry

The straight chain fatty acids and the cyclopentenyl fatty acids present in the lipids of Hydnocarpus wightiana seeds were separated as their pyrrolidides by means of gas chromatography. A gas chromatography-mass spectrometry system confirmed the complete separation and permitted the identification of the individual components in the sample.

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Pages: 285-290
Publication date: 1979
Peer-reviewed: Yes

Publication information
Journal: Chemistry and Physics of Lipids
Volume: 23
Issue number: 4
ISSN (Print): 0009-3084
Original language: English
DOIs: 10.1016/0009-3084(79)90008-2
Source: orbit
Source-ID: 282275
Research output: Contribution to journal – Journal article – Annual report year: 1979 – Research – peer-review

Øges kræftrisikoen, hvis blyet fjernes fra benzin?

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy, National Food Institute
Pages: 12-13
Publication date: 1979
Peer-reviewed: No

Publication information
Journal: Ingeniøren
Volume: 5
Issue number: 2
Original language: Danish
Source: orbit
Source-ID: 284991
Research output: Contribution to journal – Journal article – Annual report year: 1979 – Research

Field Desorption Mass Spectrometry of 1-Methylpyridinium Salts

General information
Publication status: Published
Organisations: Biomass Gasification, Biosystems Division, Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Larsen, E., Holmen, H.
Pages: 417-424
Publication date: 1978
Peer-reviewed: Yes

Publication information
Journal: ORGANIC MASS SPECTROMETRY
Volume: 13
Issue number: 7
Original language: English
DOIs: 10.1002/oms.1210130710
Source: orbit
Source-ID: 283995
Gas Chromatographic-Mass Spectrometric Identification of 4-Chloroindolyl-3-acetic Acid Methyl Ester in Immature Green Peas

**General information**
Publication status: Published
Organisations: Biomass Gasification, Biosystems Division, Risø National Laboratory for Sustainable Energy
Contributors: Egsgaard, H., Engvild, K. C., Larsen, E.
Pages: 365-368
Publication date: 1978
Peer-reviewed: Yes

**Publication information**
Journal: Physiologia Plantarum
Volume: 42
Issue number: 4
ISSN (Print): 0031-9317
Original language: English
DOIs: 10.1111/j.1399-3054.1978.tb04097.x
Source: orbit
Source-ID: 283999
Research output: Contribution to journal › Journal article – Annual report year: 1978 › Research › peer-review

Mass Spectra of Tetraselenafulvalenes, Diselenadithiafulvalenes and Tetrathiafulvalenes

The mass spectra of 13 heterofulvalenes are reported. The spectra show great similarities within the selenium and within the sulphur series. The main difference between the selenium and the sulphur compounds results from the more facile loss of selenium compared with sulphur, and from the first fragmentation of the molecular ion, as the selenium fulvalenes lose an alkyne molecule, whereas the sulphur fulvalenes first lose an (SCR) radical. An important feature of the spectra of the simple heterofulvalenes is the formation of a rearrangement ion by migration of a heteroatom. The mechanism was elucidated by 13C labelling and is discussed in detail.

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy, Biomass Gasification, Biosystems Division
Contributors: Andersen, J. R., Egsgaard, H., Larsen, E., Bechgaard, K., Engler, E. M.
Pages: 121-127
Publication date: 1978
Peer-reviewed: Yes

**Publication information**
Journal: Organic Mass Spectrometry
Volume: 13
Issue number: 3
ISSN (Print): 0030-493X
Original language: English
DOIs: 10.1002/oms.1210130302
Source: orbit
Source-ID: 285151
Research output: Contribution to journal › Journal article – Annual report year: 1978 › Research › peer-review

Thallium Intoxication Treated with Long-Term Hemodialysis, Forced Diuresis and Prussian Blue

A 56 yr old woman, who ingested 2 g of thallium sulfate, was successfully treated with long-term hemodialysis for 200 h during 10 days, combined with forced diuresis and Prussian blue. The effect of the artificial kidney dialysis was determined by repeated analysis of the Tl concentration in the dialysis bath and in blood samples. During the 1st 120 h of hemodialysis, 143 mg of Tl was eliminated via the artificial kidney and 110 mg via the urinary tract. The present case of acute Tl intoxication is the 1st in which long-term hemodialysis has been used in the acute phase...

**General information**
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E., Solgaard, P. B., Freund, L. G., Olesen, A. S., Pedersen, R. S.
Pages: 429-432
Determination of Mass Spectrometric Sensitivity of Different Metalloporphyrin Esters Relative to Porphyrin Ester

Quantitative determination of metalloporphyrin contamination in preparations of biologically important porphyrins was achieved mass spectrometrically by application of the integrated ion current technique. For this purpose, the relative molecular ion sensitivities of the contaminating metal complexes were determined from the ratios of the integrated molecular ion currents of a series of calibration samples containing a porphyrin ester and one of its metal complexes in known molar ratio. Complexes formed with divalent ions of Cu, Zn, Fe, Co and Ni of copro- as well as uro-prophyrin permethylester were all found to have the same molecular ion sensitivities as their metal-free porphyrin ester. The relative metalloporphyrin ester content in a sample of porphyrin ester was thus obtained directly as the integrated ion current ratios of the normalized molecular ions. The preparation of calibration samples, including complex formation and the mass spectrometric methodology, is described and discussed.

Thermal Decomposition of 1,2,3,4-thiatriazoles: Question of Thioacyl and Thioacylnitrene Intermediates

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Holm, A., Carlsen, L., Larsen, E.
Pages: 4816-4822
Publication date: 1977
Peer-reviewed: Yes
Bobler og dråber i mineraler

**General information**
- Publication status: Published
- Organisations: Risø National Laboratory for Sustainable Energy
- Contributors: Larsen, E., Madsen, K., Rose-Hansen, J.
- Pages: 67-72
- Publication date: 1975
- Peer-reviewed: No

**Investigation of the Decelerating Field of an Electron Multiplier under Negative Ion Impact**

The effect of the decelerating field of an electron multiplier towards negative ions was investigated under standard mass spectrometric conditions. Diminishing of this decelerating field by changing of the potential of the electron multiplier increased the overall sensitivity to negative ions by a factor of 100. The secondary electron emission coefficient for the negative halogen ions relative to I⁻ were measured on CuBe at the kinetic energies 1.0 and 1.5 keV.

**General information**
- Publication status: Published
- Organisations: Risø National Laboratory for Sustainable Energy
- Contributors: Larsen, E., Kjeldgaard, K.
- Pages: 149-155
- Publication date: 1973
- Peer-reviewed: Yes

**Mass Spectrometric Studies of some 4-Acyl Substituted 1-Phenyl-3-Methyl-5-Pyrazolones**

**General information**
- Publication status: Published
- Organisations: Risø National Laboratory for Sustainable Energy
- Contributors: Larsen, E., Qureshi, I. H., Møller, J.
- Pages: 89-96
- Publication date: 1973
- Peer-reviewed: Yes
Helium in the Thermal Springs of Unartoq, South Greenland

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Persoz, F., Larsen, E., Singer, K. A. J.
Number of pages: 21
Publication date: 1972

Publication information
Original language: English
(Grønlands Geologiske Undersøgelser Nr. 44; No. GGU-R-44).
Source: orbit
Source-ID: 284059
Research output: Book/Report › Report – Annual report year: 1972 › Research › peer-review

Mass-spectrometric measurement of burn-up in UO2 fuel using stable fission-product neodymium

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Qureshi, I. H., Larsen, E., Turi, L., Olsen, J., Hougaard, H.
Number of pages: 19
Publication date: 1971

Host publication information
Title of host publication: Symposium on Analytical Methods in the Nuclear Fuel Cycle (IAEA/SM-149/13).
Source: orbit
Source-ID: 283461
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1971 › Research

Isotopundersøgelse ved brug af massespektrometri

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Larsen, E.
Pages: 30-30
Publication date: 1970
Peer-reviewed: No

Publication information
Journal: Dansk Kemi
Volume: 51
ISSN (Print): 0011-6335
Original language: Danish
Source: orbit
Source-ID: 285348
Research output: Contribution to journal › Journal article – Annual report year: 1970 › Research

Mass Spectrometry of some Pyrrolizidine Alkaloids

General information
Publication status: Published
Organisations: Risø National Laboratory for Sustainable Energy
Contributors: Pedersen, E., Larsen, E.
Pages: 249-256
Publication date: 1970
Peer-reviewed: Yes

Publication information
Journal: Organic Mass Spectrometry
An investigation of tautomeric equilibria by means of mass spectrometry
Changes in the mass spectra with inlet temperature were used in this work to demonstrate the dependence of keto-enol tautomerism of acetylacetone, 3-methyl acetylacetone and 3-allyl acetylacetone on temperature. The largest dependence of temperature were shown by the ion \([M + 42]^+\), arising from a McLafferty type rearrangement and by the ion \([M + Me]^+\) resulting from simple -cleavage. The ion \([M + 42]^+\), peak increases with the temperature of the inlet system while the ion \([M + Me]^+\) peak decreases. By assuming that the ion \([M + 42]^+\) represents the keto form and that the ion \([M + Me]^+\) represents the cis-enol form (stabilized by the hydrogen bond) one sees that the direction of the intensity variation of these peaks with temperature is in accord with the expected change of keto-enol tautomerism with temperature. A quantitative correlation on the basis of the above assumptions is also approached. Recording of the mass spectra of these three \(\beta\)-diketones at different energies of the incident electrons enables us to estimate whether or not the particular ions present in the mass spectra result from energetically favourable processes. The variation of the intensities of the peaks with the temperature of the inlet at different electron energies is also discussed.

Radio-gas-chromatography of monodi- and tri-bromobenzenes labelled with 82Br

Untersuchungen über die Polyphenylen