Wissenschaftliches Programm

Mittwoch, 15.10.2014

13:00 Begrüßung

13:20-15:20 Session 1- Neue Methoden und Techniken

13:20 High resolution multi-collector gas source isotope ratio MassSpectrometry High Resolution Multi-Collector Gas Source
Hilkert (Thermo Fisher Scientific GmbH, Bremen)

13:40 Comparison of methods to determine triple oxygen isotope composition of N_2O by conversion to O_2: Introduction of foreign oxygen and sensitivity
J. Dyckmann (GWDG, Göttingen)

14:00 N_2O isotopic fractionation method to quantify N_2O reduction to N_2 – a validation in $He+O_2$ atmosphere
D. Lewicka-Szczebak (Thünen-Institut, Braunschweig)

14:20 Novel tool for simultaneous carbon and nitrogen stable isotope analyses in aqueous samples
E. Federherr (Elementar Analysensysteme GmbH, Hanau)

14:40 Selenium stable isotope variations as a process tracer in plants - chances and challenges
H. Banning (KIT, Karlsruhe)

15:00 Synthesis and Evaluation of Molecularly-Imprinted Polymers for Compound-Specific Isotope Analysis of Polar Organic Micropollutants
R. Bakkour (EAWAG, Zürich)

15:20 Kaffeepause

15:50-17:30 Session 2 – Hydrologie und Hydrogeologie

15:50 V1: Carbon Isotope signatures of DIC in temperate tidal areas of the southern North Sea trace submarine groundwater discharge and advective pore water efflux
V. Winde (IOW, Rostock)

16:10 Artificial deuterium labeling for a quantification of groundwater recharge in semi-arid regions
M. Beyer (BGR, Hannover)

16:30 Hydro-chemical and isotope studies along the Caleque-Oshakati water carrier system: possible indicators of anthropogenic influence in the semiarid, densely populated area of Northern Namibia
P. Koeniger (BGR, Hannover)

16:50 Regional nitrogen dynamics in the Bode river system, Germany, as constained by stable isotope patterns
C. Müller (UFZ, Halle)

17:10 Oberirdische Wasseraufnahme der Buche (Fagus sylvatica) in Abhängigkeit von Trockenstress
T. Gebhardt (Universität Göttingen)

17:30-19.00 Postersession I

ab 20:00 User Meeting Thermo Fisher Scientific GmbH (Paulaner Bräuhaus, Kapuzinerplatz 5)

Donnerstag, 16.10.2014

8:30-10:20 Session 3 – Metabolismus und Physiologie

8:30 Keynote-Presentation: Stable isotope profiling under complex conditions
W. Eisenreich (TU München)

9:00 Compound-specific labelling traces metabolic carbon allocation into plant volatile organic compounds and CO_2
C. Werner (Universität Bayreuth)

9:20 What determines $\delta^{13}CO_2$ during light enhanced dark respiration (LEDR)?
M. Lehmann (Paul-Scherer-Institut, Villingen)

9:40 αStable carbon isotope fractionation in human steroid metabolism
U. Flenker (Deutsche Sporthochschule Köln)

10:00 Abiotic methanogenesis from organosulfur compounds under ambient conditions and its potential implications for methane formation in eukaryotes
F. Keppler (Universität Heidelberg)

10:20 Kaffeepause

10:50 Keynote-Presentation: Online methods for the position specific analysis of ^{13}C in some light organic compounds
N. Yoshida (Tokyo Institute of Technology, Tokyo)

11:20 N_2O production pathways in a partial nitritation-anammox reactor: Isotopic evidence for N_2O production associated with anaerobic NH_4^+ oxidation?
E. Harris (Empa, Dübendorf)

11:40 Elementkonzentrations- und Isotopenverhältnisbestimmungen an menschlichen Haarsträhnen mittels induktiv gekoppeltes Plasma-Massenspektrometrie (ICP-MS) und Isotopenverhältnis-Massenspektrometrie (IRMS)
N. Scheid (Bundeskriminalamt, Wiesbaden)

11:55 Global spatial distribution of natural stable carbon and nitrogen isotope ratios in modern humans
F. Hülsemann (Deutsche Sporthochschule Köln)

12:10 **Mittagspause**

13:00-14:30 **Postersession II**

14:30 Kaffeepause

15:00-16:50 **Session 4 - Geochemische Stoffkreisläufe und Schadstoffdynamik**

15:00 Calibration of ($^{13}C/^{12}C$ and $^{2}H/^{1}H$)-isotope ratios in methane
W. A. Brand (MPI, Jena)

15:20 Kann die Sauerstoffisotopensignatur in N_2O zur Bestimmung des pilzlichen Anteils an der Denitrifikation genutzt werden?
L. Rohe (Thünen-Institut, Braunschweig/Göttingen)

15:40 δD and $\delta^{13}C$ measurements of chloromethane from terrestrial and extraterrestrial matter and its implications for the search of organic matter on Mars
M. Greule (Universität Heidelberg, Heidelberg)

16:00 Carbon, nitrogen, and hydrogen isotope analysis of N-Nitrosodimethylamine (NDMA) formed during chloramination of Ranitidine-containing waters
S. Spahr (EAWAG, Dübendorf)

16:20 Application of compound-specific stable isotope analysis for source identification of chlorinated organic pollutants
N. Ivdra (UFZ/Isodetect GmbH, Leipzig)

16:35 Forensische Nutzung der IRMS: Profiling von „Crystal Meth“
S. Schneiders (Bundeskriminalamt, Wiesbaden)

17:00 ASI-Mitgliedertreffen

20.00 Konferenz-Abendessen (Hofbräuhaus, Am Platzl 9)

Freitag, 17.10.2014

8:30-10:00 **Session 5 – Klimatologie und Klimarekonstruktionen**

8.30 Which climate factor does best explain carbon isotope variations in tree-rings: temperature, precipitation or sunshine duration?
M. Saurer (Paul-Scherer-Institut, Villingen)

8:50 Die Mischung macht’s!? Facilitation zwischen adulten Buchen und Fichten im Trockenstress
T. Grams (TU-München)

9:10 Revisiting Mt. Kilimanjaro - reinterpreting $\delta^{2}H$ results of n-alkane biomarkers
M. Zech (Universität Bayreuth)

9:30 Reconstructing lake evaporation history and the isotopic composition of precipitation by a coupled $\delta^{18}O$-$\delta^{2}H$ biomarker approach
J. Hepp (Universität Bayreuth/Halle)

9:50 Verleihung des Isotopenpreises

10:30 Kaffeepause

10:50-12:50 Session 6 – Ökosysteme

10:50 Geographical patterns in the isotopic ecology of wool, past and present
I. von Holstein (Universität Kiel)

11:10 It's complex: Using $^{13}C/^{15}N$ plant and soil isoscapes to capture environmental gradients, land-management effects and land-use patterns across a NE German agricultural landscape
K. Nitzsche (Leibniz Center for Agricultural Landscape Research (ZALF), Müncheberg)

11:30 Light limitation stimulates partial mycoheterothrophy in rhizoctonia-associated orchids
J. Schiebold (Universität Bayreuth)

11:50 Intramolecular isotope distributions detect CO_2-driven increases in photosynthesis over centuries
I. Ehlers (Universität Umeå)

12:10 Investigations of (soil) respiration in a long-term Free Air CO_2 Enrichment (FACE) experiment
K. Lenhart (Universität Gießen)

12:30 Using stable oxygen isotopes to assess vegetation impact on ecosystem water cycle and productivity in a Mediterranean oak woodland
M. Dubbert (Universität Bayreuth)

12:50-13:15 Preisverleihungen und Schlussworte