

EGU General Assembly 2012
Programme Group Programme
IG – Isotopes in Geosciences: Instrumentation and Applications

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Monday, 23 April

IG4 – Isotopes and Isoscapes as Tool for Forensic Provenancing – Orals

Convener: Dr Meier-Augenstein | Co-Conveners: L. Dawson, J. Hoogewerff

Room: 42

Chairperson: Wolfram Meier-Augenstein

- 08:30–09:00 EGU2012-2150
L.I. Wassenaar, K.A. Hobson, and S. van Wilgenburg
 Application of Isoscapes to Global Wildlife Studies - A Decade of Progress and the Road Ahead
- 09:00–09:15 EGU2012-1246
J. Almirall
 Elemental Analysis and Comparison of Bulk Soil Using LA-ICP-MS and LIBS methods
- 09:15–09:30 EGU2012-1884
S. Ziegler, S. Merker, and D. Jacob
 Geographic variation of stable isotopes in African elephant ivory
- 09:30–09:45 EGU2012-4711
T. Tütken, R. Turck, and A. Zeeb-Lanz
 Provenance of butchered human individuals discovered in the exceptional Neolithic site of Herxheim, SW Germany: Evidence from phosphate oxygen isotope analysis of human teeth
- 09:45–10:00 EGU2012-6098
R. Frew, R. Emad Ehtesham, R. Van Hale, A. Hayman, and T. Baisden
 Effect of precipitation, geographical location and biosynthesis on New Zealand milk powder bulk and fatty acids D/H ratios

COFFEE BREAK

Chairperson: Jurian Hoogewerff

- 10:30–10:45 EGU2012-13589
G. Bowen, C. Bataille, C. Kennedy, T. Zhang, and J. West
 Integrating environmental isoscapes for spatiotemporal assignment
- 10:45–11:00 EGU2012-2489
M. Ruppenthal, Y. Oelmann, H. F. Del Valle, and W. Wilcke
 Nonexchangeable H isotope ratios of soil organic matter across different ecoregions in Argentina
- 11:00–11:15 EGU2012-12706
R. Panetta and G. Hsiao
 Matrix-bound water retains the regional signature in cheese
- 11:15–11:30 EGU2012-8369
T Meisel, D Bandoniene, D Zetl, M Maneiko, and M Horschneegg
 $^{87}\text{Sr}/^{88}\text{Sr}$ a useful tool for the identification of geographic origin of Styrian pumpkin seed oils?
- 11:30–11:45 EGU2012-7201
M. Willmes, C. Boel, R. Grün, R. Armstrong, A. Chancerel, B. Maureille, and P. Courtaud
 Isotopic reconstruction of ancient human migrations: A comprehensive Sr isotope reference database for France and the first case study at Tumulus de Sables, south-western France
- 11:45–12:00 EGU2012-1576
J. Hoogewerff
 Isoscapes for Provenancing; Forensic Requirements and Inference.

IG4 – Isotopes and Isoscapes as Tool for Forensic Provenancing – Posters

Convener: Dr Meier-Augenstein | Co-Conveners: L. Dawson, J. Hoogewerff

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Wolfram Meier-Augenstein

- A292 EGU2012-1473
W Meier-Augenstein, J Hoogewerff, H F Kemp, and D Frew
 The First Detailed 2H and ^{18}O Isoscapes of Freshwater in Scotland
- A293 EGU2012-1239
H F Kemp, W Meier-Augenstein, M Collins, H Salouros, A Cunningham, and M Harrison
 Multivariate Stable Isotope Analysis to Determine Linkages between Benzocaine Seizures

- A294 EGU2012-1237
O Sutcliffe, N Nic Daeid, H F Kemp, and W Meier-Augenstein
 Rising to the Forensic Analytical Challenges Associated with the Global Increase in Seizures of Cathinone-derived "Legal Highs"
- A295 EGU2012-1354
S. Jayaram, N. Nic Daeid, W.J. Kerr, H.F. Kemp, and W. Meier-Augenstein
 Methylamphetamine synthesized from cold medication as precursor source via two different routes show significantly different stable isotope signatures
- A296 EGU2012-1238
N Nic Daeid, W Meier-Augenstein, and H F Kemp
 Determination of geographic provenance of cotton fibres using multi-isotope profiles and multivariate statistical analysis
- A297 EGU2012-1962
K.M. Rogers, L.I. Wassenaar, D.X. Soto, and J.A. Bartle
 A feather precipitation hydrogen isoscape for New Zealand
- A298 EGU2012-9117
J. McCullagh
 New methods for the compound specific analysis of underivatized amino acids
- A299 EGU2012-13201
N. Saad and J. Hoffnagle
 Implementation of a Novel Laser System for Simultaneous Measurement of $^{13}\text{C}/^{12}\text{C}$ and D/H to Food Provenance
- A300 EGU2012-12601
C. Bouman, J.B Schwieters, N.S. Lloyd, and A. Trinquier
 Multicollector ICPMS and TIMS as tools for isotopic fingerprinting
- A301 EGU2012-13046
A. Hasözбек, K. J. Mathew, G. Orłowicz, B. Srinivasan, and U. Narayanan
 Application of Uranium Isotope Dilution Mass Spectrometry in the preparation of New Certified Reference Materials
- A302 EGU2012-10094
A. Sakaguchi, A. Kadokura, P. Steier, Y. Takahashi, K. Shizuma, and M. Yamamoto
 Depth distributions of uranium-236 and cesium-137 in the Japan/East Sea; toward the potential use as a new oceanic circulation tracer

HS8.2.2/IG17 – Groundwater Dating: Applications and current problems (co-organized) – Orals

Convener: M. Kralik | Co-Conveners: J. Sültenfuß, G. Darling, R. Purtschert

Room: 38

Chairperson: n.n.

- 08:30–08:45 EGU2012-3199
Z.-T. Lu, W. Jiang, A. Sharma, K. Bailey, P. Mueller, T. P. O'Connor, S.-M. Hu, R. Purtschert, and N. C. Sturchio
 ^{81}Kr -dating is now available
- 08:45–09:00 EGU2012-9805
P.K. Aggarwal, T. Matsumoto, L.J. Araguás Araguás, L.F. Han, M. Van Duren, P.M. Philipp, M.A. Choudhry, and M. Kralik
 The use of isotopic age for improved groundwater assessment and management: recent IAEA initiatives
- 09:00–09:15 EGU2012-2389
J. Sueltenfuss
 Could the Tritium Precipitation Record be found in Aquifers?
- 09:15–09:30 EGU2012-4648
G. Massmann, V. Burke, U. Hass, and U. Dünnebier
 Groundwater dating with the helium-tritium method to assess the long-term persistence of pharmaceuticals and their residues in groundwater
- 09:30–09:45 EGU2012-5539
M. Wieser, J. Fohlmeister, R. D. Deshpande, I. Hajdas, W. Aeschbach-Hertig, and S. K. Gupta
 A new ^{14}C groundwater dating approach, applied to an aquifer in North-West India
- 09:45–10:00 EGU2012-12988
R. mouloudi, L. gourcy, W. kloppmann, and S. violette
 Groundwater ages in an alluvial aquifer: Confronting lumped parameter models (^3H , CFCs and SF_6) and numerical transport modeling.

HS8.2.2/IG17 – Groundwater Dating: Applications and current problems (co-organized) – Posters

Convener: M. Kralik | Co-Conveners: J. Sültenfuß, G. Darling, R. Purtschert

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A206 EGU2012-7727
T. Matsumoto, L.H. Han, M. Jaklitsh, and P.K. Aggarwal
Development of a portable membrane contactor sampler for noble gas analyses of surface and groundwater samples
- A207 EGU2012-9755
J. Najman, **J. Bielewski**, and I. Sliwka
Application of gas chromatographic method in simultaneous measurements of helium, argon and neon concentration in groundwaters
- A208 EGU2012-8311
L.F. Han, L.N. Plummer, and P. Aggarwal
Graphical analysis of chemical and isotopic carbon data for groundwater dating
- A209 EGU2012-2763
A. Suckow
Lumpy - an interactive Lumped Parameter Modeling code based on MS Access and MS Excel.
- A210 EGU2012-10493
R. Schwefel, T. Reichel, W. Aeschbach-Hertig, and D. Wagenbach
Preparation of water and ice samples for ³⁹Ar dating by atom trap trace analysis (ATTA)
- A211 EGU2012-5649
A. Caracausi, P.M. Nuccio, R. Favara, and A. Rizzo
4He and heat balance as groundwater-dating tools: the study case of Sciacca thermal basin, Sicily (Italy)
- A212 EGU2012-6687
M. Gusyev and **M. Stewart**
Flexible tools for interpreting tracer measurements and recent applications
- A213 EGU2012-2233
U. Morgenstern and C.J. Daughney
Age Distribution of Groundwater
- A214 EGU2012-9098
J. Farlin, T. Gallé, M. Bayerle, D. Pittois, C. Braun, H. El Khabbaz, P. Maloszewski, and M. Elsner
Estimating the evolution of atrazine concentration in a fractured sandstone aquifer using lumped-parameter models and taking land-use into account
- A215 EGU2012-3584
J. Bartyzel, J. Rosiek, I. Sliwka, and K. Rozanski
Dating of groundwater using anthropogenic gaseous tracers (SF₆, SF₅CF₃, CFC-12, HC-1311): methodological aspects
- A216 EGU2012-902
J. Bikše, A. Džliža, A. Babre, I. Retiņe, B. Raga, and E. Pērskone
CFC concentrations in fresh groundwater in Latvia
- A217 EGU2012-9809
A. Balvín, M. Hokr, M. Šanda, T. Vitvar, and P. Rálek
Transit time estimation of tunnel inflow in fractured granites
- A218 EGU2012-14066
C. Gerber, R. Purtschert, G. Darling, D. Gooddy, M. Kralik, F. Humer, and J. Sültenfuss
Suitability and potential of environmental tracers for base-flow determination in streams
- A219 EGU2012-6661
M. Kralik, F. Humer, G. Darling, J. Sültenfuß, and S. Wyhlidal
Tracer (¹⁸O, ³H, ³H/³He, CFC and SF₆) and hydrochemistry to elucidate processes and mean residence times in porous aquifers in the South-East of Austria (Grazer and Leibnitzer Feld)
- A220 EGU2012-233
A. Malov
Evaluations of ratios of various transition processes of uranium in groundwater from rocks by uranium isotopic data

SSP2.2 – Palaeozoic global sea level: linking stratigraphy, bioevents, and the stable isotope record (co-listed) – Orals

Convener: Dr Žigaitė | Co-Conveners: D. Ray, T. Vandenbroucke

Room: 41

Chairperson: Dr. Zivile Zigaite

- 10:30–10:45 EGU2012-10128
H. A. Armstrong and B. R. Turner
A glimpse of ice sheets in the Early Palaeozoic greenhouse world

- 10:45–11:00 EGU2012-5237
A. Dronov
 Ordovician of the Siberian Platform: sea-level and long-term lithological changes
- 11:00–11:15 EGU2012-13528
D.A.T. Harper, C.M.Ø. Rasmussen, A. Munnecke, J. Jin, S. Stouge, and J.A. Rasmussen
 Transgressive-regressive events and facies through the Upper Ordovician - Lower Silurian of Peary Land, North Greenland
- 11:15–11:30 EGU2012-6736
A. Desrochers, D.G.F. Long, and J.-F. Ghienne
 Changes in the Style of Neritic Carbonate Production in the Tropics during the End-Ordovician Hirnantian Glaciation : atypical limestone facies from the Anticosti succession, eastern Canada
- 11:30–11:45 EGU2012-12693
G. Niedzwiedzki
 Devonian Terrestrial Revolution: the palaeoenvironment of the oldest known tetrapod tracks, Zachełmie Quarry, Poland
- 11:45–12:00 EGU2012-11887
C.E. Bennett, T.R.A. Vandenbroucke, M. Williams, M.J. Leng, R.A. Fortey, A.W. Owen, C. Torney, A.A. Page, J.E. Andrews, A. Munnecke, M. López Correa, and H.A. Armstrong
 A new Ordovician sea surface temperature proxy: the eyes of pelagic trilobites

SSP2.2 – Palaeozoic global sea level: linking stratigraphy, bioevents, and the stable isotope record (co-listed) – Posters

Convener: Dr Žigaitė | Co-Conveners: D. Ray, T. Vandenbroucke

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Dr. Thijs R. A. Vandenbroucke

- A311 EGU2012-3193
GL Albanesi, SM Bergström, B Schmitz, F Serra, NA Feltes, and GG Voldman
 The Middle Darriwilian (Middle Ordovician) $\delta^{13}\text{C}$ isotopic event (MDICE) recognized in the Argentine Precordillera
- A312 EGU2012-11543
H. Blom and Ž. Žigaitė
 New thelodont findings from the Lower Devonian Andrée Land Group, Spitsbergen
- A313 EGU2012-9506
J. R. Davies, R. A. Waters, S. G. Molyneux, M. Williams, J. A. Zalasiewicz, T. R. A. Vandenbroucke, and J. Verniers
 A record of early Silurian glacioeustasy from the Type Llandovery
- A314 EGU2012-5251
E. Lukševičius and ? Stinkulis
 Sea-level changes and the Middle-Upper Devonian sequence in the Baltic basin
- A315 EGU2012-11247
O. Lehnert, G. Meinhold, S.M. Bergström, M. Calner, J.O.R. Ebbestad, S. Egenhoff, Å.M. Frisk, A.E.S. Högström, and J. Maletz
 The Siljan Ring in central Sweden - a window into the Palaeozoic history of Baltoscandia
- A316 EGU2012-11362
O. Lehnert, M. Calner, P. Ahlberg, and D.A. Harper
 Multiple palaeokarst horizons in the Lower Palaeozoic of Baltoscandia challenging the dogma of a deep epicontinental sea
- A317 EGU2012-705
K.M. Mehlqvist and V.V. Vajda
 Palynofacies analysis of Upper Silurian deposits from Sweden - Palaeoenvironmental implications
- A318 EGU2012-13420
S. Radzevičius and A. Ekleris
 The preliminary data on the Aeronian (Silurian) machaerids from Lithuania (Baltic Basin)
- A319 EGU2012-8231
R. Sansom and P. Donoghue
 Patterns, processes and geological biases in the fossil record of jawless vertebrates at the time of jawed vertebrate origins
- A320 EGU2012-9072
A. Spiridonov and A. Brazauskas
 Patterns of conodont extinction selectivity during Ireviken event (Lower Silurian), example from Eastern Baltic basin

- A321 EGU2012-4911
P. Szrek, **G. Niedzwiedzki**, and M. Dec
The Lower Devonian marginal-marine ecosystems of the Holy Cross Mountains, Poland - new discoveries and observations
- A322 EGU2012-11794
T. R. A. Vandenbroucke, A. Munnecke, M. J. Leng, T. Bickert, O. Hints, G. Maier, and T. Servais
A comparison of the organic carbon isotope composition of whole rock with that of isolated palynomorph groups (chitinozoans and scolecodonts) from the early Silurian of Gotland
- A323 EGU2012-3238
G.G. Voldman, G.L. Albanesi, G. Ortega, C.R. Monaldi, F.J. Zeballo, and M.E. Giuliano
Biostratigraphy of the Santa Rosita Formation (Furongian-Tremadocian) in its type area, Eastern Cordillera, NW Argentina
- A324 EGU2012-9687
Ž. Žigait?
Do fossil vertebrate biominerals hold the key to the Palaeozoic climate?
- A325 EGU2012-9873
Ž. Žigait?, B. Kear, A. Pérez-Huerta, T. Jeffries, and H. Blom
REE compositions in fossil vertebrate dental tissues indicate biomineral preservation
- A326 EGU2012-10028
Ž. Žigait?, H. Blom, and D. Goujet
Thelodont biostratigraphy in the Lower-Middle Devonian palaeobasin of Svalbard, Norwegian Arctics

Tuesday, 24 April

BG1.2/IG13 – Application of stable isotopes in Biogeosciences (co-organized) – Orals

Convener: M. E. Böttcher | Co-Conveners: S. Bouillon, G. Gleixner, A. Benthien, E. Schefuß, M. Werner, T. Prohaska, A. Zitek, J. Irrgeher, C.-F. You, T. Walczyk, LY Yang

Room: 23

Chairperson: Albert Benthien

- 08:30–08:45 EGU2012-6364
K. Yoshimura
 Isotope Reanalysis for 20th century: Reproduction of isotopic time series in corals, tree-rings, and tropical ice cores
- 08:45–09:00 EGU2012-2082
M. Cuntz, V. Haverd, D. W. Griffith, C. Keitel, C. Tadros, and J. Twinning
 Determine Forest Turbulent Transport and Evapotranspiration Partition With the Help of a new Soil Water Isotope Model
- 09:00–09:15 EGU2012-9624
N. Pedentchouk, T. Lawson, Y. Eley, and L. McAusland
 Hydrogen isotope composition of leaf wax n-alkanes in Arabidopsis lines with different transpiration rates
- 09:15–09:30 EGU2012-9321
I. Vasiliev, G. J. Reichart, L. van Roij, F. Sangiorgi, and W. Krijgsman
 Drying up of the Black Sea during the Messinian Salinity Crisis of the Mediterranean
- 09:30–09:45 EGU2012-10635
M. Tuthorn, M. Zech, F. Detsch, D. Juchelka, K. Kalbitz, C. Mayr, R. Werner, R. Zech, W. Zech, and B. Glaser
 A 240 ka terrestrial 18O record from a NE-Siberian loess-like permafrost paleosol-sequence based on a novel analytical 18O method
- 09:45–10:00 EGU2012-2145
M. S. Studer, S. Abiven, M. W. I. Schmidt, and R. T. W. Siegwolf
 Multi-isotope labelling (13C, 18O, 2H) for studying organic matter cycling within plant-soil systems

COFFEE BREAK

Chairperson: Michael E. Böttcher

- 10:30–10:45 EGU2012-10086
C. Vogel, K. Heister, F. Buegger, A. Bannert, and I. Kögel-Knabner
 Investigation of biogeochemical interface development by a short-term incubation experiment using 15N and 13C labeled litter
- 10:45–11:00 EGU2012-2513
F. Dehairs
 Seasonal evolution of nitrate isotopic composition in the River Scheldt
- 11:00–11:15 EGU2012-8559
K Dähnke and B. Thamdrup
 Sedimentary denitrification: Isotope fractionation and its impact on water column nitrate isotopes
- 11:15–11:30 EGU2012-10918
A. Mothet, M. Sebil, A.M. Laverman, V. Vaury, and A. Mariotti
 Using natural isotopic abundances to determine the source of nitrous oxide (N2O) emissions
- 11:30–11:45 EGU2012-7670
I. Preuss, C. Knoblauch, J. Gebert, and E.-M. Pfeiffer
 Using carbon isotope fractionation for an improved quantification of CH4 oxidation efficiency in Arctic peatlands
- 11:45–12:00 EGU2012-12795
M. Dippold, C. Apostel, B. Glaser, and Y. Kuzyakov
 Microbial utilization of amino acids in soil assessed by position-specific labeling and compound-specific 13C-PLFA-analysis

LUNCH BREAK

Chairperson: Thomas Prohaska

- 13:30–13:45 EGU2012-287
K.M. MacKenzie, C.N. Trueman, and M.R. Palmer
 Ecology and location of marine animals revealed by carbon and nitrogen isotopes
- 13:45–14:00 EGU2012-2965
J.I. Garcia Alonso
 Multiple linear regression for isotopic measurements
- 14:00–14:15 EGU2012-1495
L. Yang, Z. Mester, R.E. Sturgeon, and J. Meija
 Observation of Mass-Independent Fractionation in MC-ICPMS and its Implication for Accurate Isotope Ratio Measurements
- 14:15–14:30 EGU2012-6151
N. Kowalski, O. Dellwig, N. Neubert, U. Gräwe, M. Beck, T. F. Nägler, H.-J. Brumsack, J. E. E. van Beusekom, and M. E. Böttcher
 Pelagic anomalies and isotope signatures of molybdenum in temperate tidal systems
- 14:30–14:45 EGU2012-10714
L. Van Heghe, C. Cloquet, and F. Vanhaecke
 Normal variations in the isotopic composition of metabolically relevant transition metals in human blood
- 14:45–15:00 EGU2012-12549
J. Radke, M. Deerberg, A. Hilbert, H.-J. Schlüter, and J. Schwieters
 High Resolution Double-Focusing Isotope Ratio Mass Spectrometry

BG1.2/IG13 – Application of stable isotopes in Biogeosciences (co-organized) – Posters

Convener: M. E. Böttcher | Co-Conveners: S. Bouillon, G. Gleixner, A. Benthien, E. Schefuß, M. Werner, T. Prohaska, A. Zitek, J. Irrgeher, C.-F. You, T. Walczyk, LY Yang

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG1 EGU2012-8220
A. Okazaki, K. Yoshimura, N. Takeuchi, K. Fujita, V. Aizen, and T. Oki
 Simulation of vertical profiles of stable water isotopes in a snow pit using a new offline isotopic snow-icecore model
- BG2 EGU2012-5311
S. Pfahl, H. Wernli, and K. Yoshimura
 The isotopic composition of precipitation from a winter storm - a case study with the limited-area model COSMOiso
- BG3 EGU2012-10952
F. Aemisegger, S. Pfahl, H. Sodemann, I. Lehner, and H. Wernli
 Lagrangian investigation of high-frequency variations in stable isotope composition of atmospheric boundary layer water vapour
- BG4 EGU2012-3747
B. Haese, M. Werner, and G. Lohmann
 Stable Water Isotopes in a Coupled Atmosphere-Vegetation Model: Sensitivity Studies for Present Day Conditions
- BG5 EGU2012-12493
K. Soderberg, S.P. Good, M. O'Connor, E.G. King, and K.K. Caylor
 Evapotranspiration partitioning in a semi-arid African savanna using stable isotopes of water vapor
- BG6 EGU2012-6565
G. Hsiao, J. Hoffnagle, V. Gkinis, E.J. Steig, B. Vaughn, S. Schoenemann, and A. Schauer
 $\delta^{17}\text{O}$ -Excess Measurements of Water Without Fluorination Using Optical Spectroscopy
- BG7 EGU2012-13321
 T. Owano, **M. Gupta**, E. Berman, and D. Baer
 New Isotopic Water Analyzer for Hydrological Measurements of Both Liquid Water and Water Vapor
- BG8 EGU2012-6836
G. Gonzalez, R. Tappert, A.P. Wolfe, and K. Muehlenbachs
 Deuterium isotopic exchangeability of resin and amber at low thermal stress under hydrous conditions
- BG9 EGU2012-11868
A. Hammerle, L. Gentsch, M. Barthel, R. Siegwolf, P. Sturm, and A. Knohl
 Leaf oxygen isotope exchange in water vapor and carbon dioxide of *Fagus sylvatica* under field conditions
- BG10 EGU2012-10925
M. Zech, G. Gleixner, R. Zech, A. Hemp, and W. Zech
 Do n-alkane biomarkers in soils reflect the D/H isotopic composition of precipitation? A case study from Mt. Kilimanjaro and implications for paleoclimate and paleoaltimetry research

- BG11 EGU2012-5348
M. Brown, A. Knohl, H. Kreilein, D. Zanotelli, A. Rauf, and H. Barus
 High-frequency measurements of atmospheric stable water vapor isotopes in the tropics (Sulawesi, Indonesia)
- BG12 EGU2012-9631
E.M. Mezger, I. Vasiliev, S. Lugli, M. Roveri, V. Manzi, and G.J. Reichart
 How dry was the Messinian Salinity Crisis? - a molecular study of the Eraclea Minoa (Sicily) section, Italy
- BG13 EGU2012-7952
E. Koskeridou and K. Agiadi
 Paleoenvironmental and sclerochronological reconstruction of *Crassostrea gryphoides* Miocene biostromes from Crete island (Greece)
- BG14 EGU2012-8883
H.E. Cockerton, F. A. Street-Perrott, M. J. Leng, P. A. Barker, K. J. Ficken, M. S. A. Horstwood, V. Pashley, and H. J. Sloane
 Holocene variations in the Si cycle in the Nile River Basin: stable-isotope evidence from natural waters and lacustrine diatoms
- BG15 EGU2012-3311
H. Stoll, C. Bolton, K. Isensee, A. Mendez-Vicente, M. Rubio-Ramos, and L.M. Mejia-Ramirez
 Can stable isotope fractionation in diatom and coccolith biominerals elucidate the significance of carbon concentrating mechanisms (CCMs) in the past?
- BG16 EGU2012-6123
N. Kowalski, O. Dellwig, P. Escher, A. Stark, and M.E. Böttcher
 Early diagenesis in sediments of the subtropical Beibu Gulf, South China Sea: Constraints from trace elements, and stable S and C isotopes
- BG17 EGU2012-6558
M. E. Böttcher, J. Köster, J. Rullkötter, H. Freund, A.M. Al-Raei, N. Kowalski, P. Escher, and R. Bahlo
 Sulfur-carbon cycling in a temperate tidal system from Pleistocene to modern time: Evidence from sedimentary sulfur and carbon isotopes, and pyrite textures
- BG18 EGU2012-2452
M. E. Böttcher, A. Kamyshtny, O. Dellwig, and J. Farquhar
 Multi-isotope biogeochemistry of sulfur in the water column and surface sediments of the Baltic Sea
- BG19 EGU2012-2327
P. Pjevac, B. Brunner, and M. Mußmann
 Oxygen isotope composition of sulfate produced during microbial sulfur oxidation: A pathway-specific fingerprint?
- BG20 EGU2012-13658
 K. Müller, V. Winde, P. Escher, R. von Geldern, and **M.E. Böttcher**
 Experimental fractionation of stable carbon isotopes during degassing of carbon dioxide and precipitation of calcite from aqueous solutions
- BG21 EGU2012-7428
C.-F. You, P.-Y. Lin, K.-F. Huang, and C.-H. Chung
 Ocean Acidification in the Western Pacific: Boron Isotopic Records in Coral Skeleton
- BG22 EGU2012-8936
K Dähnke, A. Moneta, B Veuger, K Soetaert, and JJ Middelburg
 Nitrogen assimilation and dissimilation by bacteria and benthic microalgae in tidal mudflat sediment in a ¹⁵N labeling study
- BG23 EGU2012-5317
S.-Y. Hsiao, T.-C. Hsu, H. Lin, J.-W. Liu, J. Lin, H.-J. Wang, M. Dai, and S.-J. Kao
 Particulate associated nitrification and N₂O production along Changjiang plume
- BG24 EGU2012-3568
S. Blagodatsky, F. Albanito, D. Robinson, and P. Smith
 Quantification of soil, root and litter respiration using natural variation in ¹³C composition of CO₂ fluxes and modelling
- BG25 EGU2012-8748
S. Kappel and T. Prohaska
 Data Evaluation Strategies for U Isotope Ratio Measurements of Single Particles by Laser Ablation - Multi Collector - Inductively Coupled Plasma Mass Spectrometry
- BG26 EGU2012-6960
H.-C. Liu, C.-F. You, and Y.-J. Tu
 Stable Strontium Isotopic Fractionation During Sorption onto Magnetic Nano-Humid Acid Coated Iron Oxide Particles
- BG27 EGU2012-5923
J. Irrgeher, P. Galler, A. Zitek, M. Teschler-Nicola, and T. Prohaska
⁸⁷Sr/⁸⁶Sr Isotope Ratio Measurements of Calcium-rich matrices by (Laser Ablation)-Multiple Collector Inductively Coupled Plasma Mass Spectrometry: A Survey on Mass Discrimination and Matrix-Induced Interferences

- BG28 EGU2012-10694
A. Zitek, J. Irrgeher, K. Sailer, C. Trautwein, H. Waidbacher, and T. Prohaska
 The applicability of an $87\text{Sr}/86\text{Sr}$ river isoscape to fish ecological questions in the Danube catchment
- BG29 EGU2012-12346
M. Mercurio, E. Grilli, V. Morra, T. Prohaska, A. Buondonno, and A. Langella
 The geofingerprint of Pyroclastic Rocks/Typic Herorthents/Piediroso chain surveyed in the Roccamonfina terroir, northwest Campania region, Italy
- BG30 EGU2012-12875
S. Rihs, M-C. Pierret, and F. Chabaux
 Using radium isotopes as tracers of transfers in the soil - water- -plant system
- BG31 EGU2012-12399
F. Gelman, A. Bernstein, E. Levin, Z. Ronen, and L. Halicz
 Bromine isotope analysis - a tool for investigating biogeochemical cycle of bromine-containing organic and inorganic compounds in the environment
- BG32 EGU2012-2963
J-C. Dutay, P. Peylin, and P. Jean-Baptiste
 Constraint on oceanic hydrothermal 3He flux from inverse modeling

CL1.16/AS4.1/BG2.12/IG15 – Biogeochemistry of Atmospheric Methane: Isotopes to Models (co-organized) – Orals

Convener: T. Sowers | Co-Conveners: M. Bock, J. Singarayer

Room: 13

Chairperson: Todd Sowers

- 08:30–08:45 EGU2012-3211
L. Mitchell, E. Brook, T. Sowers, and J. Lee
 Multidecadal variability and the Inter Polar Gradient of atmospheric methane in the late Holocene
- 08:45–09:00 EGU2012-9540
J. G. Levine, E. W. Wolff, A. E. Jones, M. A. Hutterli, L. C. Sime, O. Wild, P. O. Hopcroft, P. J. Valdes, A. T. Archibald, G. D. Carver, N. J. Warwick, and J. A. Pyle
 The Ice-core Record of Atmospheric Methane: Chemistry-Climate Interactions on Tens to Thousands of Years
- 09:00–09:15 EGU2012-4938
I. Levin, G. Brailsford, T. Bromley, E. Dlugokencky, R. Fisher, R. Heinz, D. Lowe, D. Lowry, J.B. Miller, E. Nisbet, C. Poß, B.H. Vaughn, C. Veidt, and J.W.C. White
 Two decades of stable carbon isotope measurements in atmospheric methane - what do they tell us about global methane budget changes?
- 09:15–09:30 EGU2012-13042
S. Houweling
 Global sources and sinks of methane and the use of satellite measurements
- 09:30–09:45 EGU2012-2937
 L. Möller, T. Sowers, M. Bock, R. Spahni, M. Behrens, J. Schmitt, H. Miller, and **H. Fischer**
 Climate and CO_2 control on emissions and ecosystem composition of global methane sources over the last 160,000 years derived from $\delta^{13}\text{CH}_4$ in ice cores
- 09:45–10:00 EGU2012-162
J. Chappellaz, T. Blunier, X. Faïn, C. Stowasser, V. Gkinis, E. Brook, R. Rhodes, J. McConnell, S. Schüpbach, J. Rosen, R. Dallmayr, O. Pascual, and M. Bigler
 Continuous Methane and Carbon Monoxide Concentration Measurements along the NEEM Core

CL1.16/AS4.1/BG2.12/IG15 – Biogeochemistry of Atmospheric Methane: Isotopes to Models (co-organized) – Posters

Convener: T. Sowers | Co-Conveners: M. Bock, J. Singarayer

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Michael Bock

- Z31 EGU2012-5751
A. Basu, M. G. Schultz, and L. Francois
 Evaluation of a wetland methane emission parameterization for present-day and Last Glacial Maximum
- Z32 EGU2012-10947
A. Budishchev, Y. Mi, A. Gallagher, J. van Huissteden, G. Schaepman-Strub, A.J. Dolman, and T.C. Maximov
 Validation of a methane emission model using eddy covariance observations and footprint modeling.
- Z33 EGU2012-13057
S. Dadson
 Modelling land-atmosphere interactions in tropical African wetlands

- Z34 EGU2012-7135
T. Umezawa, S. Sugawara, T. Sugiyama, K. Kawamura, S. Aoki, and T. Nakazawa
 Histories of atmospheric methane and its carbon and hydrogen isotopic ratios over the last 250 years obtained from an ice core and firn air
- Z35 EGU2012-1699
S. Bryant, L. Mitchell, E. Brook, and T. Sowers
 High-resolution methane records covering the Holocene
- Z36 EGU2012-3217
 H. Mitchell, M. Bock, and **T. Sowers**
 Decoupling atmospheric methane isotope records during MIS 5-4 transition
- Z37 EGU2012-2366
M. Bock, J. Schmitt, R. Schneider, and H. Fischer
 Post pyrolysis trapping of molecular hydrogen improves precision for $\delta D(CH_4)$ analysis
- Z38 EGU2012-7234
 J. Schmitt, **B. Seth**, and H. Fischer
 In situ production of ethane and propane in dust-rich Greenland ice core samples: is methane also affected?
- Z39 EGU2012-14109
 M Baumgartner, A Schilt, O Eicher, J Schmitt, J Schwander, R Spahni, **H Fischer**, and T Stocker
 Interpolar difference of atmospheric methane around the last glacial maximum
- Z40 EGU2012-5578
T. Blunier, J. Chappellaz, S. Schuepbach, Ch. Stowasser, E. Brook, J. Rosen, R. Dallmayr, O. Pascual, M. Bigler, and D. Leuenberger
 Steps towards a continuous methane concentration record back to 100 kyr BP
- Z41 EGU2012-4396
C. J. Sapart, G. Monteil, M. Prokopiou, R.S.W. van de Wal, P. Sperlich, J.O. Kaplan, K.M. Krumhardt, C. van der Veen, S. Houweling, M.C. Krol, T. Blunier, T. Sowers, P. Martinerie, D. Dahl-Jensen, and T. Röckmann
 Natural and anthropogenic variations in methane sources over the last 2 millennia
- Z42 EGU2012-3868
H. Schaefer, D.F. Ferretti, K.R. Lassey, J.W.C. White, P. Sperlich, D.M. Etheridge, and D.C. Lowe
 Methane source reconstructions for the last 300 years from Law Dome $\delta^{13}CH_4$ and their relation to past climate

Wednesday, 25 April

IG3/AS4.2 – Stable Isotopes in Atmospheric Research (co-organized) – Orals

Convener: R. Koppmann | Co-Conveners: J. Kaiser, M. S. Johnson

Room: 34

Chairperson: Jan Kaiser

- 08:30–08:45 EGU2012-4679
F. Robert and P. Reinhardt
Non-mass dependent isotope fractionation in Ozone
- 08:45–09:00 EGU2012-6589
E. Sofen, B. Alexander, E. Steig, M. Thiemens, S. Kunasek, H. Amos, A. Schauer, M. Hastings, J. Bautista, T. Jackson, L. Vogel, J. McConnell, and D. Pasteris
Assessing the anthropogenic influence on atmospheric oxidants using the oxygen isotopic composition of sulfate and nitrate from the WAIS-Divide ice core
- 09:00–09:15 EGU2012-163
Y. Lin, R.N. Clayton, L. Huang, N. Nakamura, and J.R. Lyons
Oxygen isotope anomaly observed in water vapor from Alert, Canada and the implication for the stratosphere
- 09:15–09:30 EGU2012-11129
C. Reutenauer, A. Landais, M-N. Woillez, C. Risi, P. Braconnot, T. Blunier, V. Mariotti, and M. Kageyama
Quantification of the role of orbital and millennial timescale processes on $\delta^{18}\text{O}$ and $\delta^2\text{H}$ signals
- 09:30–09:45 EGU2012-11188
F. Aemisegger, P. Sturm, P. Graf, H. Sodemann, S. Pfahl, A. Knohl, and H. Wernli
Measuring fast variations of $\delta^{18}\text{O}$ and $\delta^2\text{H}$ in atmospheric water vapour using laser spectroscopy: an instrument inter-comparison and characterisation study
- 09:45–10:00 EGU2012-11378
J. Lyons, D. Blackie, G. Stark, and J Pickering
The origin of sulfur MIF effects in ancient rocks based on isotopic SO_2 cross sections

COFFEE BREAK

Chairperson: Ralf Koppmann

- 10:30–10:45 EGU2012-7317
J. A. Schmidt, **M. S. Johnson**, and R. Schinke
Isotope effects in N_2O photolysis from first principles
- 10:45–11:00 EGU2012-14243
J. Kaiser, J. Laube, E. McKenna, S. Maxwell, T. Röckmann, and A. Engel
Chlorine isotope fractionation in CFC-12 reflects the latitude dependence of stratospheric chemistry and transport rates
- 11:00–11:15 EGU2012-2362
M. Bock, J. Schmitt, and H. Fischer
Similar response in $\delta(\text{CH}_4)$ during Holocene, Eem, MIS 11 and antecedent terminations
- 11:15–11:30 EGU2012-9863
J. Wintel, E. Hösen, F. Bühler, H.-P. Heuser, P. Knieling, R. Koppmann, M. Krebsbach, C. Linke, and H. Spahn
Stable Carbon Isotope Ratios of Toluene in the Boundary Layer and the Lower Troposphere
- 11:30–11:45 EGU2012-7824
X. F. Sang, **I. Gensch**, W. Laumer, B. Kammer, C. Y. Chan, G. Engling, A. Wahner, H. Wissel, and A. Kiendler-Scharr
Stable carbon isotope ratio analysis of anhydrosugars in biomass burning source aerosol
- 11:45–12:00 EGU2012-12009
M. Reuter, H. Bovensmann, M. Buchwitz, J.P. Burrows, N.M. Deutscher, J. Heymann, O. Schneising, and T. Warneke
On the potential of space based and ground based FTS measurements for remote sensing of atmospheric CO_2 isotopologues

IG3/AS4.2 – Stable Isotopes in Atmospheric Research (co-organized) – Posters

Convener: R. Koppmann | Co-Conveners: J. Kaiser, M. S. Johnson

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A369 EGU2012-1562
H. C. Steen-Larsen, A. E. Sveinbjörnsdóttir, TH. Jónsson, and S. J. Johnsen
Monitoring the water vapor isotopic composition in the temperate North Atlantic
- A370 EGU2012-1563
H. C. Steen-Larsen, A. E. Sveinbjörnsdóttir, A. Peters, and J. Rosset
Monitoring the water vapor isotopic composition in the sub-tropical North Atlantic
- A371 EGU2012-7119
K. Gribanov, R. Imasu, J. Jouzel, F.-M. Breon, C. Clerbaux, and M. Kolyasnikova
HDO mapping in the atmosphere over Western Siberia from satellite data with validation using ground based FTIR measurements
- A372 EGU2012-6968
N. Rokotyan, V. Zakharov, K. Gribanov, J. Jouzel, T. Warneke, and J. Notholt
Methods of retrieval of $13\text{CH}_4/12\text{CH}_4$ and $13\text{CO}_2/12\text{CO}_2$ ratio in atmosphere using ground-based FTIR spectral measurements
- A373 EGU2012-6779
P. Sperlich, M. Guillevic, C. Buizert, T. Jenk, H. Schaefer, and T. Blunier
A new solution to a standard problem: creating atmosphere-like isotope reference gases with precisely referenced $\delta^{13}\text{C} - \text{CH}_4$
- A374 EGU2012-6795
P. Sperlich, C. Buizert, M. Guillevic, T. Jenk, C.J. Sapart, T. Röckmann, M. Bock, J. Schmitt, H. Fischer, and T. Blunier
A setup to analyze isotopes of paleoatmospheric CH_4 and N_2O in a single ice core sample
- A375 EGU2012-11264
E. González-Sosa, C. Mastachi-Loza, R. Becerril-Piña, and NM Ramos-Salinas
Study of Urban environmental quality through Isotopes $\delta^{13}\text{C}$
- A376 EGU2012-10816
D. Fibiger and M. Hastings
Quantifying the isotopic composition of NO_x emission sources: An analysis of collection methods
- A377 EGU2012-6717
S. Shrestha, S. Shrestha, T. Nakamura, and F. Kazama
Stable isotopic composition of $\delta^{15}\text{N}-\text{NO}_3^-$ and $\delta^{18}\text{O}-\text{NO}_3^-$ in precipitation of Kathmandu valley during monsoon season
- A378 EGU2012-9821
C. Meusinger, T.A. Berhanu, J. Erbland, F. Domine, J. Savarino, and M.S. Johnson
Photochemical Isotope Effects in Snowpack Nitrate
- A379 EGU2012-935
A.A. Wiegel and K.A. Boering
Measurements and kinetics modeling of the O_2/CO_2 dependence of the oxygen-17 isotope anomaly in carbon dioxide
- A380 EGU2012-5799
T. Blunier, M.L. Bender, B. Barnett, and J.C. von Fisher
Planetary fertility during the past 400 ka based on the triple isotope composition of atmospheric oxygen in trapped gases from the Vostok ice core
- A381 EGU2012-5489
S. Ranjan, M. Leuenberger, R. Winkler, and A. Landais
Influence of pH on $\delta^{17}\text{O}$ using the conventional equilibration device and a comparison to the CoF3 method
- A382 EGU2012-6177
D. Mrozek and T. Röckmann
Online, high precision analytical method for determination of $\delta^{17}\text{O}$ in stratospheric CO_2 with the use of CeO_2 isotopic exchange
- A384 EGU2012-14267
S. O. Danielache, S. Hattori, **M. S. Johnson**, Y. Ueno, S. Nanbu, and N. Yoshida
Ultraviolet Spectroscopy of ^{32}S , ^{33}S , ^{34}S and ^{36}S Sulphur Dioxide: Isotopic model for the SO_2^* reaction.
- A385 EGU2012-14271
M. B. Enghoff, N. Bork, S. Hattori, C. Meusinger, M. Nakagawa, J. O. P. Pedersen, S. O. Danielache, Y. Ueno, **M. S. Johnson**, N. Yoshida, and H. Svensmark
An isotopic view of ionising radiation as a source of sulphuric acid
- A386 EGU2012-14268
S. Hattori, J. A. Schmidt, S. O. Danielache, **M. S. Johnson**, R. Schinke, H. Kjaergaard, S. Toyoda, Y. Ueno, and N. Yoshida
Ultraviolet absorption cross sections of isotopically substituted carbonyl sulfide species: Theory, experiment and modeling

A387 EGU2012-14162

J. Kaiser, A. Angert, B. Bergquist, W. Brand, S. Ono, T. Röckmann, and J. Savarino

IUPAC Project: Terminology and definition of quantities related to the isotope distribution in elements with more than two stable isotopes

IG5/CL5.8/SSP5.3 – Stable isotopes as a tool in (paleo-)climate studies in different environments and by multi-proxi approaches (co-organized) – Orals

Convener: Dr. Bojar | Co-Conveners: M Werner, RTW Siegwolf, L. Dallai, A. Demény, D. R. Gröcke, S. H. Halas, Dr. Melinte-Dobrinescu, A. Perşoiu, M. Savard

Room: 39

Chairperson: Rolf Siegwolf, Mihaela Melinte-Dobrinescu

13:30–13:45 EGU2012-10432

D. Sarris, R. Siegwolf, and Ch. Körner

Stable C and O isotope signals of drought in Mediterranean pines on inter- and intra-annual scales

13:45–14:00 EGU2012-6472

M. M. Savard, C. Bégin, J. Marion, and A. Smirnoff

Natural and Anthropogenic C and N isotopic Trends in Trees growing near oil-sands developments

14:00–14:15 EGU2012-6257

A. McAnena, J.O. Herrle, A. Griesand, T. Wagner, H.M. Talbot, J. Rethemeyer, and P. Hofmann

Evidence for long term cooling and short punctuated climate events at the Aptian-Albian boundary in the sub-tropical Atlantic (Mazagan Plateau, DSDP Dite 545)

14:15–14:30 EGU2012-11602

M.C. Melinte-Dobrinescu and A.-V. Bojar

Cretaceous biotic changes and isotope events in the Southern and Eastern Carpathians (Romania)

14:30–14:45 EGU2012-8668

A. Demény, Gy. Czuppon, Z. Siklósy, G. Schöll-Barna, P. Sümegi, Sz. Leél-össy, K. Lin, C.-C. Shen, and B. Bajnóczi

Temperature and precipitation variations in the mid-Holocene based on combined evaluation of stable isotope compositions of speleothems and freshwater bivalve shells in Hungary

14:45–15:00 EGU2012-8210

J. L. Toney, J. A. Bendle, O. Seki, S. Krishnan, M. Pagani, G. Inglis, R. Pancost, P. K. Bijl, S. Bohaty, S. Schouten, J. Pross, H. Brinkhuis, U. Roehl, S. Jamieson and the IODP Expedition 318 Team

Insights into peatland expansion and methane cycling on the East Antarctic continent in the early Eocene

IG5/CL5.8/SSP5.3 – Stable isotopes as a tool in (paleo-)climate studies in different environments and by multi-proxi approaches (co-organized) – Posters

Convener: Dr. Bojar | Co-Conveners: M Werner, RTW Siegwolf, L. Dallai, A. Demény, D. R. Gröcke, S. H. Halas, Dr. Melinte-Dobrinescu, A. Perşoiu, M. Savard

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Martin Werner, Darren Grocke, Ana-Voica Bojar

A388 EGU2012-8908

L. Kocsis, E. Gheerbrant, M. Mouflih, H. Cappetta, J. Yans, A. Ulianov, and M. Amaghazaz

Tracing climatic conditions during the deposition of late Cretaceous-early Eocene phosphate beds in Morocco by geochemical compositions of biogenic apatite fossils

A389 EGU2012-7057

P. Hofmann, R. Wiegand, L. Handley, T. Wagner, H. M. Talbot, and **A. Mcanena**

Fluctuating sea surface temperatures in the subtropical North Atlantic during Oceanic Anoxic Event 1a at DSDP Site 398 and ODP Site 641

A390 EGU2012-4913

P.J.N. Weber*, C. Baumgartner-Mora*, and P.O. Baumgartner*

87Sr/86Sr-ratios, foraminiferal data and sedimentology of the Latest Miocene - Pliocene cyclic carbonates of La Désirade (Guadeloupe, France)

A391 EGU2012-10889

C. Beltran, J. Backman, and M.A. Sicre

Late Miocene nanofossil response to global climate change: A new record from the Eastern Equatorial Pacific (IODP Site 1338).

A392 EGU2012-8008

M. Koch*, O. Friedrich, and P.A. Wilson

Late Pliocene to early Pleistocene millennial-scale fluctuations in SST and stratification within the North Atlantic

- A393 EGU2012-3467
G.S. Kong, S.P. Kim, and H.S. Choi
High-resolution paleoenvironmental records during the late Quaternary from the marginal seas of East Asia: the intrusion of open-ocean current
- A394 EGU2012-324
O. Rach, A. Brauer, H. Wilkes, and D. Sachse
Atmospheric circulation shifts during the Younger Dryas in Western Europe
- A395 EGU2012-2876
F. Guenther, R. Witt, B. Xu, T. Yao, R. Mäusbacher, and G. Gleixner
Hydrogen isotopes of biomarkers as palaeoclimate proxy of Lake Nam Co, Tibetan Plateau
- A396 EGU2012-9143
S. Gao, C. Voelker, and D. Wolf-Gladrow
Application of a box model to investigate marine $\delta^{30}\text{Si}$ distribution
- A397 EGU2012-10545
J.C.W Whalen, P.A.E. Pogge von Strandmann, and D.N. Schmidt
The Mg isotope composition of foraminifers: a new proxy for palaeoseawater composition
- A398 EGU2012-12862
A.-V. Bojar, H.-P. Bojar, and W. Tufar
Mg/Ca and isotopic high resolution record of deep-sea hydrothermal barnacles
- A399 EGU2012-10810
A. Per?oiu and A.-V. Bojar
Palaeoclimate signal recorded by stable isotopes in cave ice: a modeling approach
- A400 EGU2012-530
H. C. Steen-Larsen, S. J. Johnsen, V. Masson-Delmotte, B. Stenni, C. Risi, and H. Sodemann
Atmospheric water vapor monitoring above the Greenland Ice Sheet
- A401 EGU2012-13727
R.T.W. Siegwolf, D. Sarris, M. Saurer, and O.V. Sidorova
When isotope signals in tree rings contradict our concepts and interpretations
- A402 EGU2012-13742
R.T.W. Siegwolf, N. Buchmann, D. Frank, F. Joos, A. Kahmen, K. Treydte, M. Leuenberger, and M. Saurer
iTREE: Long-term variability of tree growth in a changing environment - identifying physiological mechanisms using stable C and O isotopes in tree rings.
- A403 EGU2012-11019
I. Labuhn, V. Daux, D. Genty, M. Pierre, M. Stievenard, and E. Regnier
Reconstruction of Drought Periods in South-Western France Based on the Isotopic Composition of Tree Rings and Speleothems
- A404 EGU2012-8877
S. Szymczak, M.M. Joachimski, A. Bräuning, T. Hetzer, and J. Kuhlemann
A 500 year early summer temperature reconstruction for the western Mediterranean basin based on stable carbon isotopes from *Pinus nigra* ssp. *laricio*
- A405 EGU2012-2820
PM Wynn, NJ Loader, and **IJ Fairchild**
Interrogating trees as archives of sulphur deposition
- A406 EGU2012-14367
T. Boettger, M. Haupt, and M. Friedrich
Sensitivity of stable isotope ratios of tree-rings of Silver fir (*Abies alba* Mill.) in Franconia (Central Germany) to climate and environmental changes
- A407 EGU2012-14226
K. Krause, P. Cherubini, H. Bugmann, and P. Schleppi
Growth enhancement of Norway spruce trees under long-term low-dose N addition is due to morphological rather than to physiological changes
- A408 EGU2012-7071
J. Sohn, M. Kohler, A. Gessler, and J. Bauhus
Interactions of thinning and stem height on the drought response of radial stem growth and isotopic composition of Norway spruce (*Picea abies*)
- A409 EGU2012-7237
M. Harada, Y. Watanabe, T. Nakatsuka, S. Tazuru, Y. Horikawa, J. Sugiyama, T. Tsuda, and T. Tagami
Establishment of alpha-cellulose extraction method and its application using tropical tree sungkai (*Peronema canescens* Jack) for reliable paleoclimate reconstruction in tropical areas

Thursday, 26 April

HS8.1.6 – Characterizing contaminant fate in the subsurface using physical, chemical, microbial and isotopic tools (co-listed) – Orals

Convener: M. Elsner | Co-Conveners: PL Bjerg, C. Stumpp, D. Schotanus, J. Jabro

Room: 38

Chairperson: Martin Elsner

- 10:30–10:45 EGU2012-9397
K. R. Schmidt, I. Kranzioch, M. Heidinger, S. Ertl, and A. Tiehm
 Assessment of chloroethene biodegradation in the subsurface by microbiological, molecular and isotopic tools
- 10:45–11:00 EGU2012-11310
C. Torrentó, C. Audí-Miró, M. Marchesi, N. Otero, and A. Soler
 Comparison of four oxidation processes for the treatment of water contaminated with a mixture of chlorinated volatile organic compounds
- 11:00–11:15 EGU2012-10139
Dr. Centler and Dr. Thullner
 Estimating the Contribution of Individual Degradation Pathways to Overall Biodegradation in Aquifers Based on Compound-Specific Stable Isotope Analysis
- 11:15–11:30 EGU2012-8789
P. Stack, T. Kuder, M. Vanderford, P. Philp, and B. van Breukelen
 An Isotope Fractionation - Reactive Transport Model to Assess Natural Attenuation of Chlorinated Solvents
- 11:30–11:45 EGU2012-5580
A. Wunderlich, R. Meckenstock, and F. Einsiedl
 Influence of environmental factors on dissolved nitrate stable isotopes under denitrifying conditions - carbon sources and water isotopes
- 11:45–12:00 EGU2012-13925
S.I Schmidt, C. Picioreanu, R. Mackay, M. Thullner, and J.U. Kreft
 Effects of varying microbial distributions when modelling pore-scale biodegradation

HS8.1.6 – Characterizing contaminant fate in the subsurface using physical, chemical, microbial and isotopic tools (co-listed) – Posters

Convener: M. Elsner | Co-Conveners: PL Bjerg, C. Stumpp, D. Schotanus, J. Jabro

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Dieuwke Schotanus

- A169 EGU2012-4196
H. Lißner, M. Wehrer, and K.U. Totsche
 Monitoring the fate and transport of deicing chemicals in lysimeter experiments
- A170 EGU2012-3954
D. Schotanus, J.C.L. Meeussen, M.J. van der Ploeg, and S.E.A.T.M. van der Zee
 Modelling transport and degradation of de-icing chemicals in soil, assuming Monod kinetics with multiple electron-acceptors
- A171 EGU2012-10535
C. Audí-Miró, R. Espinola, C. Torrentó, N. Otero, A. Rossi, J. Palau, and A. Soler
 Monitoring the decontamination of a site polluted by DNAPLs
- A172 EGU2012-2269
P. Schöftner, A. Watzinger, P. Holzknecht, B. Wimmer, G. Soja, and T. Reichenauer
 Assessing willows for phytoremediation of TCE - Uptake, transformation and microbial degradation
- A173 EGU2012-6953
J.-W. Lim, S. Lee, D. Kaown, and K.-K. Lee
 Investigation and simulation on fate and transport of leachate from a livestock mortality burial site
- A174 EGU2012-3632
N. Milosevic, S. Qiu, M. Elsner, H.-J. Albrechtsen, and P.L. Bjerg
 Evaluating the fate of organic leachate contaminants by use of multiple chemical tools in a clay till setting
- A175 EGU2012-4675
S. Qiu, P. Maloszewski, M.S. Granitsiotis, A. Herzyk, M. Larentis, R. Meckenstock, and M. Elsner
 Sorption or biodegradation? - Evidence from carbon isotope analysis of a transient toluene pulse passing through a pristine aquifer

- A176 EGU2012-7299
S. Qiu, **A. Herzyk**, P. Maloszewski, M. Larentis, C. Griebler, and M. Elsner
Preliminary response of a pristine aquifer when facing toluene contamination
- A177 EGU2012-7251
S. Cretnik, C. Audi, A. Bernstein, J. Palau, A. Soler, and M. Elsner
Chlorine and carbon isotope measurements can help assessing the effectiveness of a zero valent iron barrier
- A178 EGU2012-12925
M. Maier, S. De Corte, N. Boon, and M. Elsner
Potential of diclofenac C+N isotope analysis: source signatures and degradation pathway dependent fractionation
- A179 EGU2012-2224
P.M. Nyenje, J. Havik, J.W. Foppen, and S. Uhlenbrook
Understanding shallow groundwater contamination in Bwaise slum, Kampala, Uganda
- A180 EGU2012-2424
M. Mastrocicco, N. Colombani, B. Faccini, D. Di Giuseppe, and **M. Coltorti**
Inorganic nitrogen inventory in a lowland heterogeneous agricultural field: implications for groundwater quality monitoring and assessment
- A181 EGU2012-4686
M.F. Rivera-Velasquez, C. Fallico, A. Molinari, P. Santillan, and M. Salazar
Hydraulic characterization of "Furcraea andina"
- A182 EGU2012-4924
J.Y. Teng
Study of the water-rock interaction in Tsengwenshi groundwater system (southern Taiwan) using BCR sequential extraction procedure
- A183 EGU2012-3994
Y. Y. Chen, C. W. Liu, and Y. H. Kao
Studies on the accumulation and transformation of arsenic in ecosystem in Guandu Wetland, Taiwan
- A184 EGU2012-4374
M. Queyron, A.-M. Aucour, S. Pichat, M. Saulais, and J.-P. Bedell
Zinc mobility in an infiltration basin (Lyon city, France): constraints from Zn stable isotope ratios in the plant and sediment

IG1/GMPV2.3/HS2.22/SSP5.1/SSS13.5/TS1.8 – Stable isotopes in geosciences - open session, including blocks of special attention (co-organized) – Posters

Convener: P. De Groot | Co-Conveners: Dr. Bojar, E. Kerstel, J. Smit, D. R. Gröcke, Ph. Negrel, E. Petelet-Giraud

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Ph. Negrel, A.-V. Bojar

- A234 EGU2012-13171
F. Dong, D. Baer, **M. Gupta**, and T. Owano
Novel Instrumentation for Measurements of Isotopic Carbon Dioxide
- A235 EGU2012-9084
F.-Y. Hu, C.-F. You, H.-C. Liu, H.-C. Chao, B.-S. Wang, C.-A. Huh, and C.-H. Chung
Sr and Nd Isotopic Compositions as Tracers for Source-to-Sink Pathways of Sediments in the Taiwan Strait
- A236 EGU2012-3301
Y. Zhao, S.W. Lokier, and T. Steuber
A new stable carbon isotope record for the Cenomanian of the Arabian Plate
- A237 EGU2012-10249
C.V. Ullmann, H.J. Campbell, and C. Korte
Alteration histories of fossil biogenic calcite as indicated by $^{87}\text{Sr}/^{86}\text{Sr}$ ratios
- A238 EGU2012-9878
P.-H. Tsai, C.-F. You, K.-F. Huang, H.-C. Liu, and Y.-B. Sun
Lithium Isotopic Fractionation during Loess Weathering
- A239 EGU2012-4715
T. Unterweissacher, G. Rantitsch, R. Ehrreich, G. Kienast, and K. Stocker
Stable isotope evidence for fluid alteration of carbonates during Cretaceous compression and extension in the Graz Paleozoic (Eastern Alps)
- A240 EGU2012-11298
I. Gilmour, C.A. Pearce, D. Jolley, M.A. Sephton, M. Widdowson, and M.A. Gilmour
Carbon isotope stratigraphy and palynology of an eastern Tethyan Cretaceous-Paleogene boundary section from Sumbar, Turkmenistan

- A241 EGU2012-14372
F. Chabaux, Th. Schaffhausen, M.-C. Pierret, and B. Ambroise
 238U-234U activity ratio as tracer of waterpathway within the watershed substratum: evidence of U data from the Strengbach and Ringelbach research catchments (Vosges, France)
- A242 EGU2012-9587
P. Saccon, A. Leis, A. Marca, J. Kaiser, L. Campisi, M.E. Böttcher, J. Savarino, P. Escher, A. Eisenhauer, and J. Erbland
 Identification and characterisation of potential sources of nitrate pollution in the Marano Lagoon (Italy) applying a multi-isotope approach
- A243 EGU2012-10932
 J. Jaunat, **F. Huneau**, H. Celle-Jeanton, A. Dupuy, and P. Le Coustumer
 Rainwater chemistry and isotopic content in the French Basque Country
- A244 EGU2012-4954
P. Koeniger
 Impacts of sampling resolution on stable isotope characteristics of precipitation and stream flow in large river basins
- A245 EGU2012-10489
 L. Cary, J. Casanova, A. Mekni, N. Gaaloul, C. Guerrot, and **E. Petelet-Giraud**
 Effect of artificial recharge by treated wastewater on the quality of the Korba coastal aquifer (Cape Bon, Tunisia): insights from Boron isotopes.
- A246 EGU2012-2581
L. Gourcy, F. Castres de Paulet, A. Rorive, and J. Bastien
 Isotope tools to support conceptual model building of the Carboniferous limestone aquifer of Northern France and Belgium
- A247 EGU2012-5878
H. Häusler, S. Frančišković-Bilinski, D. Rank, P. Stadler, and H. Bilinski
 Results from stable isotope investigations of river waters in Western Croatia
- A248 EGU2012-8192
N. Mohammed, H. Celle-Jeanton, F. Huneau, P. Le Coustumer, V. Lavastre, and G. Bertrand
 Spatial hydrochemical and isotopic variations within the alluvial aquifer of the Allier River (Massif Central, France)
- A249 EGU2012-8942
Ph. Negrel and W. Kloppmann
 Insight into past hydrological conditions through signatures of stable isotopes in Holocene Loire River fluvial sediments (France)
- A250 EGU2012-8964
Ph. Negrel and E. Petelet-Giraud
 Lead isotopes in sediments of the Loire River (France): natural versus anthropogenic origin
- A251 EGU2012-9110
E. Petelet-Giraud, Ph. Négrel, and C. Guerrot
 Boron and strontium isotopes to assess water origin and anthropogenic inputs during flood events. The Hérault River, S. France.
- A252 EGU2012-9566
 C. Innocent, **E. Petelet-Giraud**, W. Kloppmann, C. Guerrot, F. Bichot, and M. Thinon-Larminach
 Groundwater circulation, connection between aquifers and relation with surface water in a karstified and faulted watershed: Constraint by Sr isotopes in the upper Sèvre-Niortaise basin (western France)

IG9/GMPV2.2/PS9.2 – New advances in non-traditional isotope chemistry, thermochronometry and $^{40}\text{Ar}/^{39}\text{Ar}$ dating (co-organized) – Orals

Convener: R. W. Brown | Co-Conveners: S. Nomade, F. Jourdan, O. Rouxel, C. Siebert, R. Beucher, A. Carter, D. Mark, F. Stuart

Room: 42

Chairperson: Fred Jourdan

- 08:30–08:45 EGU2012-13366
F.M. Stuart and D. Mark
 Constraints on Earth degassing history from the argon isotope composition of Devonian atmosphere
- 08:45–09:00 EGU2012-10904
S. P. Kelley and S. Flude
 Observation of micron to centimetre scale argon in alkali feldspars: implications for $^{40}\text{Ar}/^{39}\text{Ar}$ thermochronology
- 09:00–09:15 EGU2012-6858
F. Jourdan, E. Thern, S.A. Wilde, and L. Frewer
 $^{40}\text{Ar}/^{39}\text{Ar}$ dating of unusual minerals (tourmaline, K-richterite, yimengite, wadeite and priderite) and applicability to the geological record.

- 09:15–09:30 EGU2012-5144
K. de Jong
 Does numerical modelling of apparent partial loss Ar/Ar age spectra of hornblende give the correct thermal history of terranes? Insights from the Palaeoproterozoic Lapland-Kola orogen (Russia)
- 09:30–09:45 EGU2012-8298
R. Schoenberg, I.C. Kleinhanns, M. van Zuilen, V.A. Melezhik, and R.B. Pedersen
 Applicability of stable Cr isotope variations in marine sediments for the reconstruction of environmental changes through the geologic record
- 09:45–10:00 EGU2012-10481
T.J. Horner, R.B.Y. Lee, G.M. Henderson, and R.E.M. Rickaby
 A novel methodology to investigate isotopic biosignatures

COFFEE BREAK

Chairperson: Olivier Rouxel

- 10:30–10:45 EGU2012-13020
V. Dekov and O. Rouxel
 Cu- and Zn-isotope systematics of seafloor hydrothermal vent fluids from a back-arc setting (Manus Basin)
- 10:45–11:00 EGU2012-9699
M. Tanimizu and K. Nagaishi
 High precision $^{11}\text{B}/^{10}\text{B}$ analysis with a simplified MC-ICP-MS
- 11:00–11:15 EGU2012-5757
P. Vermeesch and A. Carter
 A simple method for in-situ zircon U-Th-He dating
- 11:15–11:30 EGU2012-11828
R. W. Brown, R. Beucher, S. Roper, K. Gallagher, C. Persano, and F. Stuart
 How to derive robust thermal histories from 'over-dispersed' single crystal apatite (U-Th)/He ages
- 11:30–11:45 EGU2012-12199
R. Beucher, R.W. Brown, K. Dobson, C. Persano, F. Stuart, and F. Roelofse
 Apatite Fission Track and (U-Th)/He data from deep boreholes and regional transects in South Africa: implications for the exhumation pattern and uplift of the southern African plateau
- 11:45–12:00 EGU2012-10225
R.L. Reverman, M.G. Fellin, F. Herman, and S.D. Willett
 Miocene to Pleistocene Exhumation of the Southern European Alps

IG9/GMPV2.2/PS9.2 – New advances in non-traditional isotope chemistry, thermochronometry and $^{40}\text{Ar}/^{39}\text{Ar}$ dating (co-organized) – Posters

Convener: R. W. Brown | Co-Conveners: S. Nomade, F. Jourdan, O. Rouxel, C. Siebert, R. Beucher, A. Carter, D. Mark, F. Stuart

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Cristina Persano

- A253 EGU2012-2628
F. L. Schenker, M. Forster, and J.-P. Burg
 The Eastern Pelagonian metamorphic core complex: insight from the $^{40}\text{Ar}/^{39}\text{Ar}$ dating of white micas
- A254 EGU2012-5231
K. de Jong, G. Ruffet, and M. Marker
 Ar/Ar age data of muscovite from the Keivy Terrane (central Kola Peninsula, arctic European Russia) imply a prolonged fluid-assisted recrystallisation
- A255 EGU2012-5409
K. de Jong, B. Wang, G. Ruffet, L.S. Shu, and M. Faure
 Ar/Ar geochronology in the western Tianshan (northwestern China): from Carboniferous (ultra)high-pressure metamorphism and thrusting to Permian strike-slip deformation and fluid ingress
- A256 EGU2012-8162
C.J. Warren, S.P. Kelley, S.C. Sherlock, and C.S. McDonald
 $^{40}\text{Ar}/^{39}\text{Ar}$ systematics in an exhumed ultra-high pressure terrane: implications for the timing of exhumation
- A257 EGU2012-12062
 A.J. Smye, **C.J. Warren**, and M.J. Bickle
 Excess ^{40}Ar as a tracer for metamorphic porosity

- A258 EGU2012-1192
D.M. Chew and R.A. Donelick
Combined apatite fission track and U-Pb dating by LA-ICPMS
- A259 EGU2012-3220
R. Vocke, S. Rabb, and J. Mann
Value Assignment of Isotopic Reference Materials - Approaches, Pitfalls and Workarounds based on Experiences from the Avogadro Project
- A260 EGU2012-3676
E. Enkelmann and T. A. Ehlers
Advantages and challenges in automated apatite fission track counting
- A261 EGU2012-4056
H. C. Chao, C. F. You, H. C. Liu, and C. -H Chung
The Origin and Post Processes of Mud Volcano Fluids in Taiwan: Evidence from Hydrogen, Oxygen, and Strontium Isotopic Compositions (δD , $\delta^{18}O$, $87Sr/86Sr$, $87Sr/86Sr^*$, and $^{88}Sr/86Sr$)
- A262 EGU2012-5860
N. Cogné, K. Gallagher, and P.R. Cobbold
Coupled inverse and forward modelling to assess the range of acceptable thermal histories, a case study from SE Brazil
- A263 EGU2012-6213
S. Mansour, N. Hasebe, F. I. Khalaf, M. K. El-Shafei, S. Arai, and A. Tamoura
LA-ICP-MS Zircon U-Pb Geochronology of the Neoproterozoic Basement Complex of Wadi Baba Area, West-Central Sinai, Egypt; Implications to understand the Evolution of the Arabian-Nubian Shield
- A264 EGU2012-10520
A. Voinot, M-P. Turpault, F. Chabaux, and D. Lemarchand
Mechanisms of primary mineral weathering inferred from B isotopes
- A265 EGU2012-11607
M. Konrad-Schmolke and M. Sudo
Correlation of in situ measured Ar, Li and B concentrations and isotopic compositions in fluid- and deformation-induced partially recrystallised high pressure rocks
- A266 EGU2012-11745
C. Siebert, N. Greber, T. Naegler, and T. Pettke
Towards an International Molybdenum Standard: NIST Standard Reference Materials 610, 612 and 3134
- A267 EGU2012-11274
M. Wildman, R. Beucher, R. Brown, C. Persano, F. Stuart, and F. Roelofse
The morphotectonic history of the Atlantic continental margin of South Africa: insights from combined (U-Th)/He and fission track thermochronometry
- A268 EGU2012-14487
R. Cochrane, R. Spikings, D. Chew, and J. Wotzlaw
Apatite U-Pb Thermochronology: A combined ID-TIMS and LA-ICP-MS study from southern Ecuador
- A269 EGU2012-10017
K. Stübner, L. Ratschbacher, D. M. Whipp Jr., R. Jonckheere, and I. Dunkl
Exhumation of the Shaxdara gneiss dome, Pamir Mts.: tectonics versus erosion
- A270 EGU2012-6414
O.V. Yakubovich, Yu.A. Shukolyukov, A.G. Mochalov, A.B. Kotov, and S.I. Korneev
Anomalously high retention of radiogenic helium in native platinum
- A271 EGU2012-10637
T. Schaffhauser, F. Chabaux, B. Fritz, B. Ambroise, A. Clement, and Y. Lucas
Geochemical tracing and modeling of alteration processes in the Ringelbach granitic research catchment (Vosges, France)
- A272 EGU2012-12942
O. Rouxel, A. Bekker, Y. Germain, and E. Ponzevera
Spatially resolved Fe- and S-isotope composition of sedimentary pyrite

Friday, 27 April

HS2.8 – Observational hydrology: Recent development in isotope and other tracer methods (co-listed) – Orals

Convener: C. Stumpp | Co-Conveners: M. Weiler

Room: 14

Chairperson: Christine Stumpp

- 15:30–15:45 EGU2012-5820
N. Mantese, D. Penna, G. Zuecco, M. Borga, T. Anfodillo, V. Carraro, and G. Dalla Fontana
 Analysis of runoff sources and water uptake by trees using isotopic data in a small forested catchment
- 15:45–16:00 EGU2012-6000
O. Wendroth, C.J. Matocha, and V. Vasquez
 Scale-Specific Field Bromide Transport and Identification of Leaching at Different Scales
- 16:00–16:15 EGU2012-6868
H. Hofmann, B. Gilefetter, and I. Cartwright
 Continuous radon measurements in upper catchments to determine soil water retention
- 16:15–16:30 EGU2012-3233
F. Tauro, S. Grimaldi, M. Porfiri, A. Petroselli, R. Rapiti, G. Cipollari, G. Mocio, and I. Capocci
 Fluorescent particle tracers in surface hydrology: proof of concepts in natural stream and hillslope
- 16:30–16:45 EGU2012-9057
S. Waldron, L.E. Vihermaa, J. Newton, A. Krusche, and C. Salimon
 Fluvial dissolved inorganic C dynamics in the Western Amazonian basin: where does this carbon come from?
- 16:45–17:00 EGU2012-12066
N. Martínez-Carreras, C.E. Wetzel, J. Frentress, D. Hlúbiková, L. Ector, J.J. McDonnell, L. Hoffmann, and L. Pfister
 Using diatoms, hydrochemical and stable isotope tracers to infer runoff generation processes

HS2.8 – Observational hydrology: Recent development in isotope and other tracer methods (co-listed) – Posters

Convener: C. Stumpp | Co-Conveners: M. Weiler

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Markus Weiler

- A101 EGU2012-4649
J. Rozemeijer, C. Siderius, M. Verheul, and H. Pomarius
 Tracing the spatial propagation of river inlet water into an agricultural polder area using anthropogenic gadolinium
- A102 EGU2012-5215
A. Torkar, M. Bren?i?, and P. Vre?a
 Analyses of Spring Dynamics with the Application of Stable Isotopes: Preliminary Results of Case Study in River Radovna Valley (NW Slovenia)
- A103 EGU2012-6678
M. Stewart, U. Morgenstern, and J. McDonnell
 How tritium illuminates catchment structure
- A104 EGU2012-11858
N. Martínez-Carreras, F. Fenicia, J. Frentress, S. Wrede, and L. Pfister
 Using stable isotopes to estimate and compare mean residence times in contrasting geologic catchments (Attert River, NW Luxembourg)
- A105 EGU2012-14303
N. Martínez-Carreras, T. Bogaard, J. Frentress, J. W. Foppen, C. E. Wetzel, L. Ector, C. Hissler, J. J. McDonnell, and L. Pfister
 Complementarities of novel and conventional tracer techniques: how can they help us to better understand streamflow generation processes in headwater catchments?
- A106 EGU2012-3590
J. Lange and A. Haensler
 Runoff generation following a prolonged dry period
- A107 EGU2012-2823
S. McGrane, D. Tetzlaff, R. Essery, and C. Soulsby
 Using multiple tracers to determine the effects of hydrogeology and anthropogenic influences on the hydrology of larger catchments

- A108 EGU2012-7389
I. Heidebuechel and P.A. Troch
Tracking variations of catchment storage with stable water isotopes
- A109 EGU2012-11329
M. Weiler, B. Herbstritt, and B. Gralher
High frequency, realtime measurements of stable isotopes in liquid water
- A110 EGU2012-11812
M. Stockinger, H. Bogen, A. Lücke, B. Diekkrüger, and H. Vereecken
Analysis of hydrological components of the Wüstebach catchment by means of stable isotope measurements
- A111 EGU2012-8069
P. J. Blaen, D. M. Hannah, and A.M. Milner
Water Source Dynamics of High Arctic River Basins
- A112 EGU2012-5738
G. Zuecco, D. Penna, L. Carturan, R. Seppi, N. Mantese, A. Gobbi, T. Zanoner, J. Gabrieli, A. Carton, M. Borgia, and G. Dalla Fontana
Origin of surface and subsurface waters in a periglacial catchment analysed by means of environmental tracers
- A113 EGU2012-2806
M. Engel, G. Bertoldi, D. Penna, and F. Comiti
Tracer-based runoff modelling in a glacierized alpine catchment
- A114 EGU2012-645
D. Mance, D. Lenac, T. Hunjak, H.O. Lutz, Z. Roller-Lutz, and J. Rubinic
Time series analysis of the stable isotope composition in the catchment of karst springs in the Kvarner bay (Croatia)
- A115 EGU2012-5449
J. Sánchez-España, M. Díez Ercilla, F. Pérez Cerdán, and I. Yusta
Using a combination of radiogenic and stable isotopes coupled with hydrogeochemistry, limnometrics and meteorological data in hydrological research of complex underground mine-pit lake systems: The case of Cueva de la Mora
- A116 EGU2012-11627
F. Cervi, **F. Ronchetti**, A. Corsini, T. Bogaard, and G. Martinelli
Deep fluids inflows in a deep-seated landslide detected with trace ions and isotopes
- A117 EGU2012-10834
C. Ebert, M. Knoche, S. Geyer, T. Rödiger, W. Busch, R. Gloaguen, E. Pohl, K. Osenbrück, J. Baidulloeva, and S. M. Weise
Isotopic and hydrochemical characterisation of a (semi)-arid catchment in the Tajik Pamirs
- A118 EGU2012-2416
A. Puttock, R.E. Brazier, J.A.J. Dungait, R. Bol, E.R. Dixon, and C.J.A. Macleod
Mutually supportive use of stable isotope and gas chromatography techniques to understand ecohydrological interactions in dryland environments
- A119 EGU2012-11633
J.W. Foppen and **T.A. Bogaard**
Protocol for quantitative tracing of surface water with synthetic DNA
- A120 EGU2012-10751
M. Demuth, A. Wunderlich, M. Elsner, R. U. Meckenstock, and **C. Stumpp**
Tracing sources of nitrate in a porous aquifer using stable isotope (^{15}N , ^{18}O) analysis

IG1/GMPV2.3/HS2.22/SSP5.1/SSS13.5/TS1.8 – Stable isotopes in geosciences - open session, including blocks of special attention (co-organized) – Orals

Convener: P. De Groot | Co-Conveners: Dr. Bojar, E. Kerstel, J. Smit, D. R. Gröcke, Ph. Negrel, E. Petelet-Giraud

Room: 42

Chairperson: A-V. Bogar, P. de Groot

- 08:30–08:45 EGU2012-9015
L. Lobo, P. Degryse, and F. Vanhaecke
Exploring antimony isotope ratio variations for provenancing purposes
- 08:45–09:00 EGU2012-12785
A. Stracke, E.T. Tipper, and M. Bizimis
High-temperature, inter-mineral Mg stable isotope fractionation in mantle xenoliths
- 09:00–09:15 EGU2012-11556
S. Açıkalın, J. Smit, ?Ö. Y?lmaz, S. Goderis, H.B. Vonhof, F. Ocakolu, P. Claeys, E. Fornaciari, S. Özkan Alt?ner, and J. Vellekoop
Isotopic and geochemical characterization of the K-Pg boundary sections from Central Sakarya Region, Turkey; a discussion on possible double impact

- 09:15–09:30 EGU2012-523
A. J. Prado-Pérez, M. C. Patón, J. Rodríguez Arévalo, and M. F. Diaz Teijeiro
 Tips and tricks to perform reliable stable isotope analysis with a Picarro CRDS
- 09:30–09:45 EGU2012-13328
 N. Saad and **J. Hoffnagle**
 Online Compound-Specific $\delta^{13}\text{C}$ and $\delta^2\text{D}$ Determinations Using Laser Spectroscopy
- 09:45–10:00 EGU2012-2411
M. Battistel, A. Garone, M. Barbieri, and B. Parisse
 Traditional ($\delta^2\text{D}$, $\delta^{18}\text{O}$) and non-traditional (Sr-87/Sr-86) isotopes approach to vertical lake profile study

COFFEE BREAK

Chairperson: Ph. Negrel, E. Petelet-Giraud

- 10:30–10:45 EGU2012-1234
S. Dogramaci, G. Skrzypek, W. Dodson, and P. Grierson
 Identifying recharge pattern using stable isotopes of rainfall in semi arid subtropical northwest Australia
- 10:45–11:00 EGU2012-1154
J. Battle-Aguilar, G.A. Harington, M. Leblanc, and P.G. Cook
 Geologic controls on groundwater discharge in large tropical rivers: an environmental tracers approach
- 11:00–11:15 EGU2012-8943
O. Kracht
 Isotopic composition (oxygen and hydrogen) of groundwater in Norway - a review of current knowledge and future perspectives
- 11:15–11:30 EGU2012-9507
T.W. Vennemann
 Isotopic (H, O, and C-DIC) tracing of Rhone river water and mixing within Lake Geneva determined using the MIR submersibles
- 11:30–11:45 EGU2012-2062
R. Millot, C. Guerrot, E. Petelet-Giraud, A. Brenot, and Ph. Négrel
 Hydrogeochemistry of the surface waters of the Ebro River Basin (Spain): a multi-isotopic characterization (H-O-Li-B-Sr isotopes)
- 11:45–12:00 EGU2012-5298
C. Briand, V. Plagnes, M. Sebilho, P. Ribstein, T. Chesnot, and M. Schneider
 Characterization of the nitrate source in a karstic spring (southwest of France): use of isotopic biogeochemistry

SC6/IG2 – Interactive Course on Stable Isotope Systematics, Tools and Applications (co-organized) – Orals

Convener: P. De Groot

Room: 25

Chairperson: n.n.

13:30–15:00

Chairperson: n.n.

15:30–17:00

SSS7.7 – Molecular and isotopic techniques in terrestrial ecosystem studies (co-listed) – Orals

Convener: B. Jansen | Co-Conveners: I. D. Bull, K. Nierop, R. Bol, C.A. Sierra, D. Derrien, M. W. I. Schmidt, S. Trumbore, LB Wiesenberg

Room: 6

Chairperson: Markus Reichstein, Carlos Sierra, Guido Wiesenberg

- 15:30–15:45 EGU2012-7412
 A. Gude, E. Kandeler, and **G. Gleixner**
 Input related microbial carbon dynamic of soil organic matter in particle size fractions
- 15:45–16:00 EGU2012-11668
C. Biasi, N.M. Tavi, M. Oinonen, J. Kukkonen, C. Platner, J. Juutilainen, and P. Martikainen
 A novel ^{14}C approach to follow fate of carbon in organic soils

- 16:00–16:15 EGU2012-12966
T. Chiti, G. Certini, F. Marzaioli, and R. Valentini
 Radiocarbon dating of magnetic and non magnetic soil fractions as a method to estimate the heterotrophic component of soil respiration in a primary forest of Ghana.
- 16:15–16:30 EGU2012-8458
B. Ahrens, W. Borken, J. Muhr, K. Savage, T. Wutzler, S. Trumbore, and M. Reichstein
 Bayesian calibration of a soil organic carbon model with radiocarbon measurements of heterotrophic respiration and soil organic carbon as joint constraints
- 16:30–16:45 EGU2012-2304
D. B. Wiedemeier, M. D. Hilf, R. H. Smittenberg, and M. W. I. Schmidt
 Improved quantification of pyrogenic carbon in soils and sediments by a HPLC-DAD method
- 16:45–17:00 EGU2012-158
A. Braun, K. Auerswald, and H. Schnyder
 Quantification of isotopic turnover in agricultural systems

SSS7.7 – Molecular and isotopic techniques in terrestrial ecosystem studies (co-listed) – Posters

Convener: B. Jansen | Co-Conveners: I. D. Bull, K. Nierop, R. Bol, C.A. Sierra, D. Derrien, M. W. I. Schmidt, S. Trumbore, LB Wiesenberg

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Markus Reichstein, Carlos Sierra, Guido Wiesenberg

- XY556 EGU2012-1645
M. Griepentrog, S. Bodé, P. Boeckx, and M.W.I. Schmidt
 Amino sugar dynamics in forest soil exposed to increased nitrogen deposition - Composition and turnover in soil density fractions
- XY557 EGU2012-2057
A. Huguet, I. Belmahdi, C. Fosse, V. Grossi, and S. Derenne
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