

Professor Ilia Rodushkin, PhD - Publications

2016

Ranges of B, Cd, Cr, Cu, Fe, Pb, Sr, Tl and Zn concentrations and isotope ratios in environmental matrices from an urban area

Pallavicini, N., Engström, E., Baxter, D.C., Öhlander, B., Ingri, J., Hawley, S., Hirst, C., Rodushkina, K., Rodushkin, I. 2016

Manuscript in preparation

Chromium isotope ratio measurements in environmental matrices by MC-ICP-MS

Pontér, S., Pallavicini, N., Engström, E., Baxter, D.C., Rodushkin, I. 2016
Journal of Analytical Atomic Spectrometry, 31 (7) ISSN 0267-9477

2015

Assessment of the natural variability of B, Cd, Cu, Fe, Pb, Sr, Tl and Zn concentrations and isotopic compositions in leaves, needles and mushrooms using single sample digestion and two-column matrix separation

Rodushkin, I., Pallavicini, N., Engström, E., et al. 2015

Journal of Analytical Atomic Spectrometry, 31(1) ISSN 0267-9477

2014

Cadmium isotope ratio measurements in environmental matrices by MC-ICP-MS

Pallavicini, N., Engstrom, E., Baxter, D.C., Öhlander, B., Ingri, J. & Rodushkin, I. 2014.

Journal of Analytical Atomic Spectrometry. ISSN 0267-9477

The role of bacterial consortium and organic amendment in Cu and Fe isotope fractionation in Cu and Fe isotope fractionation in plants on a polluted mine site

Perez Rodriguez, N., Langella, F., Rodushkin, I., Engström, E., Kothe, E., Alakangas, L. & Öhlander, B. 2014. Environmental Science and Pollution Research International. 10.1007/s11356-013-2156-1.

2013

A high-throughput method for the determination of Os concentrations and isotope ratio measurements in small-size biological samples

Pallavicini, N., Ecke, F., Engstrom, E., et al., 2013. Journal of Analytical Atomic Spectrometry. 28 (10), 1591-1599.

Isotopic analyses by ICP-MS in clinical samples

Rodushkin, I., Engström, E. & Baxter, D. C. 2013. Analytical and Bioanalytical Chemistry. 405 (9), 2785-2797.

Copper and iron isotope fractionation in mine tailings at the Laver and Kristineberg mines, northern Sweden

Perez Rodriguez, N., Engström, E., Rodushkin, I., Nason, P., Alakangas, L. & Öhlander, B. 2013. Applied Geochemistry. 32, 204-215.

2012

Isotopic analysis of the metabolically relevant transition metals Cu, Fe and Zn in human blood from vegetarians and omnivores using multi-collector ICP-mass spectrometry.

Van Heghe, L., Engström, E. & Rodushkin, I. 2012. Journal of Analytical Atomic Spectrometry. 27, 1327-1334.

Isotope abundance ratio measurements by inductively coupled

plasma-sector field mass spectrometry.

Baxter, D., Rodushkin, I & Engström, E. 2012. Journal of Analytical Atomic Spectrometry. 27 (7), 1355-1381.

2011

Elemental and isotopic characterization of cane and beet sugars

Rodushkin, I., Baxter, D., Engström, E., Hoogewerff, J., Horn, P., Papesch, W., Watling, J., Latkoczy, C., van der Peijl, G., Berends-Montero, S., Ehleringer, J. & Zdanowicz, V. 2011. Journal of Food Composition and Analysis. 24 (1), 70-78.

Uptake and accumulation of anthropogenic Os in free-living bank voles (*Myodes glareolus*)

Rodushkin, I., Engström, E., Sörlin, D., Baxter, D., Hörnfeldt, B., Nyholm, E. & Ecke, F. 2011. Water, Air and Soil Pollution. 208, 603-610.

2010

Sources of contamination and remedial strategies in the multi-elemental trace analysis laboratory

Rodushkin, I., Engström, E. & Baxter, D. 2010. Analytical and Bioanalytical Chemistry. 396 (1), 365-377.

Temporal isotopic variations of dissolved silicon in a pristine boreal river

Engström, E., Rodushkin, I., Ingri, J., Baxter, D., Ecke, F., Österlund, H. & Öhlander, B. 2010. Chemical Geology. 271 (3-4), 142-152.

Isotopic variations of Fe and Zn in Finnish acid sulfate soils

Boman, A., Engström, E., Rodushkin, I., Åström, M. & Öhlander, B. 2010. Proceedings of the 19th World Congress of Soil Science: Soil Solutions for a Changing World. Gilkes, R. & Prakongkep, N. (red.). 1-4.

2008

Levels of inorganic constituents in raw nuts and seeds on the Swedish market

Rodushkin, I., Engström, E., Sörlin, D. & Baxter, D. 2008. Science of the Total Environment. 392 (2-3), 290-304.

Silicon isotopic composition of boreal forest vegetation in Northern Sweden

Engström, E., Rodushkin, I., Öhlander, B., Ingri, J. & Baxter, D. 2008. Chemical Geology. 257 (3-4), 247-256.

2009

Fractionation of iron isotopes during estuarine mixing in Ob, Yenisey and Lena freshwater plumes

Ingri, J., Gelting, J., Nordblad, F., Engström, E., Rodushkin, I., Andersson, P., Porcelli, D., Gustafsson, O., Semiletov, I. & Öhlander, B. 2009. Geochimica et Cosmochimica Acta. 13, Suppl. S, A569.

Sediment and water interactions with macrophyte element concentrations and community structure.

Ecke, F., Engström, E., Rentz, R. & Husson, E. 2009. Aquatic Weeds 2009 conference.

Stream water geochemistry of boron and boron isotopes in a small boreal catchment affected by a major forest fire

Nordblad, F., Rodushkin, I., Engström, E., Ecke, F., Öhlander, B. & Ingri, J. 2009. Geochimica et Cosmochimica Acta. 13, Suppl. S, s. A952. 1 s.



Temporal isotopic variations of dissolved silicon in a pristine boreal river

Engström, E., Rodushkin, I., Ingri, J., Baxter, D., Ecke, F., Österlund, H. & Öhlander, B. 2009. *Geochimica et Cosmochimica Acta*. 13, Suppl. S, s. A333. 1 s.

2007

An inter-laboratory comparison of Si isotope reference materials

Reynolds, B. C., Aggarwal, J., Andre, L., Baxter, D., Beucher, C., Brzezinski, M. A., Engström, E., Georg, R. B., Land, M., Leng, M. J., Opfergelt, S., Rodushkin, I., Sloane, H. J., van den Boorn, S. H. J. M., Vroon, P. Z. & Cardinal, D. 2007. *Journal of Analytical Atomic Spectrometry*. 22, 5, s. 561-568. 8 s.

Authentication of Kalix (NE Sweden) vendace caviar using inductively coupled plasma-based analytical techniques: evaluation of different approaches

Rodushkin, I., Bergman, T., Douglas, G., Engström, E., Sörlin, D. & Baxter, D. 2007. *Analytica Chimica Acta*. 583, 2, s. 310-318. 9 s.

Evaluation of simultaneous analyte leaching/vapour phase introduction for direct Os isotope ratio measurements in solid samples by double focusing sector field ICP-MS

Rodushkin, I., Engström, E. & Baxter, D. 2007. *Geostandards and Geoanalytical Research*. 31, 1, s. 27-38. 12 s.

Methylmercury measurement in whole blood by isotope-dilution GC-ICPMS with 2 sample preparation methods

Baxter, D., Rodushkin, I., Engström, E., Klockare, D. & Waara, H. 2007. *Clinical Chemistry (Washington, DC)*. 53, 1, s. 111-116. 6 s.

Osmium in environmental samples from Northeast Sweden: Part I. Evaluation of background status

Rodushkin, I., Engström, E., Sörlin, D., Pontèr, C. & Baxter, D. 2007. *Science of the Total Environment*. 386, 1-3, s. 145-158. 14 s.

Osmium in environmental samples from Northeast Sweden: Part II. Identification of anthropogenic sources

Rodushkin, I., Engström, E., Sörlin, D., Pontèr, C. & Baxter, D. 2007. *Science of the Total Environment*. 386, 1-3, s. 159-168. 10 s.

Förekomst av Osmium och Osmiumtetroxid i Norrbottens län,

7/2007, ISBN/ISSN-nr:0283-9636,2007,pp 43.

<http://www.lansstyrelsen.se/norrboten/Sv/publikationer/2007/Pages/forekomst-av-osmium-och-osmiumtetroxid-i-norrbotens-lan.aspx>

Characterization of the silicon isotopic composition of the terrestrial biogenic output from a boreal forest in Northern Sweden

Engström, E., Rodushkin, I., Baxter, D., Ingri, J. & Öhlander, B. 2007. 17th Annual V. M. Goldschmidt Conference. s. A256. 1 s. (*Geochimica et cosmochimica acta*; 15, Suppl. 1).

2006

Chromatographic purification for the determination of dissolved silicon isotopic composition in natural waters by high-resolution multicollector inductively coupled plasma mass spectrometry

Engström, E., Rodushkin, I., Baxter, D. & Öhlander, B. 2006. *Analytical Chemistry*. 78, 1, s. 250-257. 8 s.

Revised exponential model for mass bias correction using an internal standard for isotope abundance ratio measurements by multi-collector inductively coupled plasma mass spectrometry

Baxter, D., Rodushkin, I., Engström, E. & Malinovsky, D. 2006. *Journal of Analytical Atomic Spectrometry*. 21, 4, s. 427-430. 4 s.
Engström, E. 2006 Goldschmidt Conference Abstracts 2006. s. A529. 1 s. (*Geochimica et Cosmochimica Acta*; 18, Suppl. 1).

Tracing Os pollution sources using isotope signatures

Rodushkin, I., Engström, E. & Baxter, D. 2006. 3rd Nordic conference on plasma spectrochemistry: plasma spectrochemical abstracts. ICP Information Newsletter, Inc 1 s.

An inter-laboratory calibration of Si isotope reference materials

Engström, E. 2006. Goldschmidt Conference Abstracts 2006. s. A529. 1 s. (*Geochimica et Cosmochimica Acta*; 18, Suppl. 1).

Tracing Os pollution sources using isotope signatures

Rodushkin, I., Engström, E. & Baxter, D. 2006. 3rd Nordic conference on plasma spectrochemistry: plasma spectrochemical abstracts. ICP Information Newsletter, Inc 1 s.

2005

Improved multi-elemental analyses by inductively coupled plasma-sector field mass spectrometry through methane addition to the plasma

Rodushkin, I., Nordlund, P., Engström, E. & Baxter, D. 2005. *Journal of Analytical Atomic Spectrometry*. 20, 11, s. 1250-1255. 6 s.

Measurement of iron and zinc isotopes in human whole blood: preliminary application to the study of HFE genotypes

Stenberg, A., Malinovsky, D., Öhlander, B., Andren, H., Forsling, W., Engström, L., Wahlin, A., Engström, E., Rodushkin, I. & Baxter, D. 2005. *Journal of Trace Elements in Medicine and Biology*. 19, 1, s. 55-60. 6 s.

2004

Determination of low-abundant elements at ultra-trace levels in urine and serum by inductively coupled plasma mass spectrometry

Rodushkin, I., Engström, E., Stenberg, A. & Baxter, D. 2004. *Analytical and Bioanalytical Chemistry*. 380, 2, s. 247-257. 11 s.

Effects of sample preparation and calibration strategy on accuracy and precision in the multi-elemental analysis of soil by sector field ICP-MS

Engström, E., Stenberg, A., Baxter, D., Malinovsky, D., Irma, M., Pönni, S. & Rodushkin, I. 2004. *Journal of Analytical Atomic Spectrometry*. 19, s. 858-866. 19 s.

Isotopic Variations of Zn in Biological Materials

Stenberg, A., Andren, H., Malinovsky, D., Engström, E., Rodushkin, I. & Baxter, D. 2004. *Analytical Chemistry*. 76, 14, s. 3971-3978. 8 s.

Multi-elemental characterization of soft biological tissues by inductively coupled plasma-sector field mass spectrometry

Engström, E., Stenberg, A., Senioukh, S., Edelbro, R., Baxter, D. & Rodushkin, I. 2004. *Analytica Chimica Acta*. 521, 2, s. 123-135. 13 s.

Kontakta oss gärna för mer information:



ALS Scandinavia AB

Aurorum 10
SE-977 75 Luleå, Sweden

T: +46 920 28 99 00
e-post: info.lu@alsglobal.com

www.alsglobal.se

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