

CURRICULUM VITAE

OLIVIER ROUXEL

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EDUCATION:

Undergraduate Studies:

1993: French scientific Baccalaureate (*Bac C*), Lycée Chateaubriand (Rennes, France).

1993-1995: 2 years of preparatory classes, specialization in biology (*Bio Sup, Bio Spé*) for admission to engineering schools, Lycée Chateaubriand (Rennes, France).

Engineer (1998): *Ecole Nationale Supérieure de Géologie de Nancy*, France.

M.S. (1998) Institut National Polytechnique de Lorraine (*DEA Géosciences*), France.

Ph.D. (2002) Institut National Polytechnique de Lorraine (*Thèse de 3^{ème} cycle, Géosciences*), France (with honors).

PROFESSIONAL EXPERIENCE:

09/09 – present: International Chair in Deep Sea Environment, Europole Mer, Université Européenne de Bretagne.

5/09 - present: Associate Scientist w/o tenure, Department of Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution (leave of absence since 09/2009)

5/05 - 5/09: Assistant Scientist, Department of Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution.

12/03 - 5/05: Deep Ocean Exploration Institute Postdoctoral Scholar, Department of Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution.

11/02 - 11/03: Research associate, Department of Earth Sciences, University of Cambridge, UK

9/98-11/02: Research assistant, Centre de Recherches Pétrographiques et Géochimiques (CRPG-CNRS) France.

AWARDS

Deep Ocean Exploration Institute Postdoctoral Fellowship award, Woods Hole Oceanographic Institution.

PROFESSIONAL AFFILIATIONS

Member American Geophysical Union (2003-present), Geochemical Society (2003-present), European Geoscience Union (2005-present)

RESEARCH INTERESTS

- * Non-traditional stable isotope systematics in rivers and estuaries; processes controlling the fractionation between continental run-off and the ocean.
- * Non-traditional stable isotope systematics in marine sediments (e.g. black shales) and paleoceanographic implications.
- * Mobility and fluxes of metals and metalloids during seafloor weathering and in seafloor hydrothermal systems.
- * Developments of new stable isotope tracers of the deep biosphere in oceanic basement and marine sediments.
- * Isotope constraints on the sources and biogeochemical cycling of metal and metalloid in seawater.

PROFESSIONAL ACTIVITIES

Steering Committee member of the WHOI Plasma Mass Spectrometer Facility.

Ad-hoc reviewer of manuscripts submitted to *Biogeosciences*, *Chemical Geology*, *Comptes Rendus Acad. Sci.*, *Earth Planet. Sci. Lett.*, *Economic Geology*, *G-cubed*, *Geochim. Cosmochim. Acta.*, *Geobiology*, *Geology*, *Geostandard Newsletter*, *Geosphere*, *GSA Today*, *J. Anal. Atom. Spectrom.*, *Nature*, *Science*, *Talanta*.

Ad-hoc reviewer of book chapters published by the Mineralogical Society of America, Elsevier Science.

Ad-hoc reviewer of proposals submitted to National Science Foundation (US), European Science Foundation, Petroleum Research Found, NASA, INSU France, Agence Nationale de la Recherche (France).

Panel reviewer for NASA to select new Institutional Team Members of the NASA Astrobiology Institute (NAI) (Cooperative Agreement Notice CAN5).

Member of the Editorial Board of *Chemical Geology* (since 2008)

Member of *Nature* Reader Panel (since 2008)

SYNERGISTIC ACTIVITIES

Co-organizer (with A. Anbar) of a symposium at the Goldschmidt 2005 conference “SS-58: Novel isotopic methods in tracing paleo-oceanographic processes”.

Co-organizer (with A. Bekker) of a symposium at the Astrobiology 2006 meeting, Washington DC “The environmental impact of life”.

Co-organizer (with P. De Groot) of a symposium at the EGU 2006 and 2007 meeting, Vienna (Austria) “Stable Isotopes in Geosciences”.

Convenor (with Jean Carignan) of a symposium at the EGU 2008 meeting, Vienna “Novel Analytical Methods for Radiogenic and Non-Traditional Stable Isotope Analysis”.

Convenor (with Thomas Zack) of a symposium at the Goldschmidt 2008 meeting, Vancouver “Stable Isotopes in high-T geochemistry”.

Guest Editor with M. Roskosz and R. Caracas of a special volume in *Chemical Geology* “Advances in experimental and theoretical isotope geochemistry”.

Guest co-editor of a special volume in *Geostandards and Geoanalytical Research* “Goldschmidt 2008 conference”.

PARTICIPATION IN EDUCATION PROGRAM

Fall 2004. Topic lecture for the MIT/WHOI program (Biology).

Spring 2004 - Topic lecture for the Geodynamics Program at WHOI (Early Earth).

Fall 2005, MIT/WHOI program. Course 7.439 “Topics: Mineralogy for Biologists and Chemists” Co-instructor with Katrina Edwards.

Fall 2008, MIT/WHOI Chemical Oceanography program. Topic: metal stable isotope geochemistry.

Committee member of MIT-WHOI Joint Program graduate students Paul Craddock, Dan Rogers.

CRUISE PARTICIPATION

09/09: Geochemist, Cruise KM0923 (R/V Kilo Moana, ROV Jason2), “FeMO 2009: Loihi Seamount” (H. Staudigel, chief scientist).

09/08: Geochemist, Cruise TN255 (R/V Thompson, ROV Jason2), “FeMO 2008: Loihi Seamount” (C. Moyer, chief scientist).

10/07: Geochemist, Cruise KM0719 (R/V Kilo Moana, ROV Jason2), “FeMO 2007: Loihi Seamount” (C. Moyer, chief scientist).

10/06: Geochemist, Cruise MGLN10MV (R/V Melville, ROV Jason2), “FeMO 2006: Loihi Seamount” (K. Edwards, chief scientist).

07/06: Geochemist, Cruise MGLN06 (R/V Melville, ROV Jason2), “Hydrothermal Systems in the Eastern Manus Basin” (M. Tivey, chief scientist).

11/04: Geochemist, Cruise AT11-20 (R/V Atlantis, AUV Alvin), “Ridge integrated studies at 9°N East Pacific Rise” (M. Lilley, chief scientist).

05/01: Petrologist, Cruise IRIS (R/V Atalante, ROV Victor), “The Rainbow hydrothermal field (Mid-Atlantic Ridge)” (Y. Fouquet, chief scientist).

04/99: Petrologist, Ocean Drilling Program, Leg 185 (R/V Joides Resolution), “Drilling the Input to the Subduction Factory” (J. Ludden, T. Plank, co-chief scientists).

COLLABORATORS WITHIN THE PAST 48 MONTHS:

J. Alt (U. Michigan); A. Anbar (U. Arizona); W. Bach (U. Bremen, Germany); A. Bekker (Canada); R. Blake (Yale); E. Boyle (MIT); C. Cloquet (CNRS, France); M. Conte (MBL); N. Dauphas (U. Chicago); O. Donard (CNRS, France); K. Edwards (USC); D. Emerson (Bigelow); P. Fralick (Lawrence, WI); A. Galy (U. Cambridge, UK); B. Glazer (U. Hawaii); T. Grenne (Norway); J.L. Hannah (Colorado State U); L.R. Kump (PSU); T.W. Lyons (Riverside); C. Moyer (WWU); S. Ono (MIT); N. Planavsky (Riverside); O. Pokrovski (CNRS, France); L. Reisberg (CNRS, France); D. Rumble (Carnegie Inst.); C. Scott

(Riverside); P. Shanks (USGS); J. Slack (USGS); H. Staudigel (UCSD); H.J. Stein (Colorado State U.); B. Tebo (OHSU); B. Toner (UMN); C. Wheat (U. Alaska); Y. Yaomin (Qingdao, China).

WHOI: E. Sholkovitz, M.K. Tivey, J. Seewald, C. German, K. Sims, B. Peucker-Ehrenbrink, E. Reeves, S. Hart, S. Thorrold, L. Ball, M. Charette, S. Manganini, M.E. Tivey, D. Yoerger
IFREMER/IUEM: Y. Fouquet, A. Godfroy, C. Hemond, E. Ponzavera, G. Bayon.

Thesis Advisors: J. Ludden (CNRS, now British Geological Survey), Y. Fouquet (IFREMER)

Postdoctoral advisors: H. Elderfield (Univ. of Cambridge), K. Edwards (WHOI, now USC)

Graduate co-advisees: P. Craddock, D. Rogers (WHOI); R. Escoube (Univ. Pau); N. Callac (UBO)

Supervision of lab members:

09/05-11/05: Dr. Yang Yaomin (Guest Investigator) from the Key Laboratory of Marine Sedimentology and Environmental Geology, Qingdao (China).

06/06-09/06: Noah Planavsky (summer student fellow) from Lawrence University, WI

06/06-09/06: Sarah Bennett (guest student) from NOC, Southampton (UK)

06/07-09/07: Elizabeth Boatman (summer student fellow) from Benoit College, USA

09/06 – 07/08: Raphaëlle Escoube (guest student) from University of Pau (France)

08/08 - 09/08: Dr. Vesselin Dekov (Guest Investigator) from the University of Sofia, Bulgaria

10/08 – 11/08: Mou Montusi (guest student) from the University of Florida.

04/09-06/09: Lasse Dossing (guest student) from the University of Copenhagen, Denmark

09/07 - present: Maureen Wisch (Research Assistant III at WHOI)

09/09 – present: Nolwenn Callac (PhD candidate at UBO).

Invited presentations and seminars (outside home institutions):

05/2009 Spring AGU – GACMAC, Toronto (2 invited talks)

04/2009 University of Manitoba, Winnipeg

12/2008 Marine Geochemistry Symposium, Max Plank Institute (Bremen)

11/2008 EGS Seminar, Princeton University

2008 Goldschmidt conference (keynote and invited talks)

2008 Centre de Geochimie de Surface (CGS-CNRS).

2007 Smith Lecture, U. Michigan, Ann Arbor.

2006 GERM Workshop, Columbia University, New York (Keynote)

2005 The Carnegie Institution of Washington, Department Seminars, Geophysical Laboratory and Department of Terrestrial Magnetism.

2005 MIT Chemical Oceanography Seminar.

2005 Astrobiology Institute, Director's Seminar (Videoconference)

2004 LMTG Seminar (Toulouse, CNRS)

2002 Geotop Seminar, UQAM-McGill, Montreal.

2002 Marine Geology Department Seminar, Institut Physique du Globe, Paris.

2001 Applied Isotope Geochemistry IV meeting, Pacific Grove, California (invited talk)

PUBLICATIONS ([§]students solely or principally advised by O. Rouxel)

Articles in revision/in press

Rouxel O and Auro M., Natural variations of Fe isotopic compositions of costal seawater determined by MC-ICPMS. *Geostandards and Geoanalytical Research* (in revision)

Bekker A., Barley M.E., Fiorentini M.L., **Rouxel O.J.**, Rumble D., Beresford S.W., Atmospheric S in Archaean komatiite-hosted Ni deposits. *Science* (in press).

Glazer B.T. and **Rouxel O.J.** Redox speciation and distribution within diverse iron-dominated microbial habitats at Loihi Seamount. *Geomicrobiology (special seamounts issue – in press)*

Peer-reviewed articles

Roskosz M., Caracas R. and **Rouxel O.**, Advances in experimental and theoretical isotope geochemistry. *Chem Geol.* **267**, 109-110.

Hoffmann A., Bekker A., **Rouxel O.**, Rumble D., and Master S., Multiple sulphur and iron isotope composition of detrital pyrite in Archaean sedimentary rocks: a new tool for provenance analysis. (2009) *Earth Planet. Sci. Lett.* **286**, 436-445.

[§] Planavsky N., **Rouxel O.**, Bekker A., Shapiro R., Fralick P., Knudsen A. Iron-oxidizing microbial ecosystems thrived in late Paleoproterozoic redox-stratified oceans. *Earth Planet. Sci. Lett.* **286**, 230-242.

[§] Bennett S. A., **Rouxel O. J.**, Schmidt K., Garbe-Schönberg D., Statham P.J., German C.R. (2009) Iron isotope fractionation in a buoyant hydrothermal plume from the Mid-Atlantic Ridge at 5°S. *Geochim. Cosmochim. Acta*, **73**, 5619–5634.

[§] Escoube R., **Rouxel O.**, Sholkovitz E. and Donard O. (2009) Iron Isotope Systematics in Estuaries: The case of the North River, Massachusetts (USA). *Geochim. Cosmochim. Acta.*, **73**, 4045-4059.

Toner B.M., Fakra S.C., Manganini S.J., Santelli C.M., Marcus M.A., Moffett J.W., **Rouxel O.**, German C.R., and Edwards K.J. (2009). Preservation of Iron(II) at Hydrothermal Vents within Carbon-Rich Matrices. *Nature Geosciences* doi:10.1038/ngeo433

[§] Craddock P., **Rouxel O.**, Ball L., Bach W. (2008) Sulfur Isotope Measurement of Sulfate and Sulfide by High-Resolution MC-ICP-MS. (2008) *Chemical Geology*, **253**, 102–113.

Rouxel O., Sholkovitz E., Charette M., Edwards K. (2008) Iron isotope fractionation in subterranean estuaries. *Geochim. Cosmochim. Acta.* **72**, 3413-3430.

Rouxel O., Shanks W.C., Bach W. and Edwards K. (2008) Integrated Fe and S isotope study of seafloor hydrothermal vents at East Pacific Rise 9-10°N. *Chem. Geol.*, **252**, 214-227.

John S.G., **Rouxel O.J.**, Craddock P.R., Engwall A.M., and Boyle E.A. (2008) Zinc isotope composition and fractionation in hydrothermal vent fluids and chimneys. *Earth Planet. Sci. Lett.*, **269**, 17-28.

Rouxel O., Ono S., Alt J., Rumble D. & J. Ludden (2008) Sulfur Isotope Evidence for Microbial Sulfate Reduction in Altered Oceanic Basalts at ODP Site 801. *Earth Planet. Sci. Lett.*, **268**, 110-123.

Reisberg L., **Rouxel O.**, Ludden J., Staudigel H., Zimmermann C. (2008) Re-Os results from ODP Site 801: Evidence for extensive Re uptake during alteration of oceanic crust. *Chemical Geology*, **248**, 256-271.

Anbar A. & **Rouxel O.** (2007) Metal Isotopes in Paleooceanography. *Ann. Rev. Earth. Planet. Sci.*, **35**, 717:746.

Ono S., Shanks III W.C., **Rouxel O.**, and Rumble D. (2007) S-33 constraints on the seawater sulfate contribution in modern seafloor hydrothermal sulfides. *Geochim. Cosmochim. Acta* **71**, 1170-1182.

Slack J.S., Grenne T., Bekker A., **Rouxel O.** and Lindberg P.A. (2007) Suboxic deep seawater in the late Palaeoproterozoic. *Earth Planet. Sci. Lett.* **255**, 243-256.

Rouxel O., Galy A. and Elderfield H. (2006) The geochemistry of Germanium Isotopes in Igneous Rocks and Marine Sediments. *Geochim. Cosmochim. Acta*, **70**, 3387-3400.

Dauphas N. and **Rouxel O.** (2006) Mass spectrometry and natural variations of iron isotopes. *Mass Spectrometry Reviews*, **25**, 515-550 (DOI 10.1002/mas.20078)

- Rouxel O.**, Bekker A. and Edwards K. (2006) Response to Comment on “Iron isotope constraints on the Archean and Paleo-Proterozoic Ocean Redox State” by Yamaguchi K. and Ohmoto H. *Science*, **311**, 177b.
- Cloquet C., **Rouxel O.**, Carignan J. and Libourel G. (2005) Natural Cadmium Isotopic Variations in Eight Geological Reference Materials (NIST SRM 2711, BCR 176, GSS-1, GXR-1, GXR-2, GSD-12, Nod-P-1, Nod-A-1) and Anthropogenic Samples, Measured by MC-ICP-MS. *Geostandards Geoanalytical Research*, **29**, 95-106.
- Rouxel O.**, Bekker A. and Edwards K. (2005) Iron isotope constraints on the Archean and Paleo-Proterozoic Ocean Redox State. *Science*, **307**, 1088-1091
- Rouxel O.**, Fouquet Y. and Ludden J. (2004) Subsurface Processes at the Lucky Strike Hydrothermal Field, Mid-Atlantic Ridge: Evidence from Sulfur, Selenium and Iron Isotopes. *Geochim. Cosmochim. Acta*, **68**, 2295-2311.
- Rouxel O.**, Fouquet Y. and Ludden J. (2004) Copper Isotope Systematics of the Lucky Strike, Rainbow and Logatchev Seafloor Hydrothermal Fields on the Mid Atlantic Ridge. *Economic Geology*, **99**, 585-600
- Rouxel O.**, Dobbek N., Ludden J. and Fouquet Y. (2003) Iron Isotope Fractionation During Oceanic Crust Alteration. *Chemical Geology*, **202**, 155-182.
- Rouxel O.**, Ludden J. and Fouquet Y. (2003) Antimony isotope variations in natural systems and implications for their use as geochemical tracers. *Chemical Geology*, **200**, 25-40.
- Rouxel O.**, Ludden J., Carignan J. Marin L. and Fouquet Y. (2002) Natural variations of Se isotopic composition determined by Hydride Generation Multiple Collector Inductively Coupled Plasma Mass Spectrometer, *Geochim. Cosmochim. Acta*, **66**, 3191-3199.

Other publications

- Rouxel O.** (2002) Géochimie Isotopique des Métaux (Fe, Cu, Sb) et Métalloïdes (S, Se) dans la Croûte Océanique. These INPL, 440pp.
- Bebout G., J. Blichert-Toft, R. Carlson, K. Cooper, M. Evans, K. Kelley, J. Konter, C. Reif, **O. Rouxel**, A. Shaw, G. Shields, H. Staudigel, and D. Stegman. (2001) Report on GERM 3, La Jolla, March 6-9, 2001. Newsletter of The Geochemical Society, Vol 108, p 17-19
- Abrams L., J. Alt, R. Armstrong, S. Barr, A. Bartolini, G. Cairns, C. Scutia, M. Fisk, G. Guerin, S. Haveman, T. Hirono, J. Honnorez, K. Kelley, R. Larson, F. Lozar, J. Ludden, R. Murray, T. Plank, T. Plesch, R. Pockalny, **O. Rouxel**, A. Schmidt, D. Smith, A. Spivack, H. Staudigel, M. Steiner, R. Valentine. (2000) Drilling Input to the Subduction Factory: ODP Leg 185. MARGINS Newsletter, v4, p7-9.
- Plank, T., Ludden, J.N., Escutia, C., L. Abrams, J. Alt, R. Armstrong, S. Barr, A. Bartolini, G. Cairns, M. Fisk, G. Guerin, S. Haveman, T. Hirono, J. Honnorez, K. Kelley, R. Larson, F. Lozar, R. Murray, T. Plesch, R. Pockalny, **O. Rouxel**, A. Schmidt, D. Smith, A. Spivack, H. Staudigel, M. Steiner, R. Valentine. (2000). Proc. ODP, Init. Repts., 185 [CD-ROM]. Available from: Ocean Drilling Program, Texas A&M University, College Station TX 77845-9547, USA.

Conference abstracts:

2009

- Rouxel O.**, Natural variations of Fe isotopic compositions of seawater determined by MC-ICPMS. *European Geosciences Union General Assembly 2009. Geophysical Research Abstracts, Vol. 11, EGU2009-0, 2009*

- Glazer B & **Rouxel O.** Iron Cycling at an Ultradiffuse Seafloor Hydrothermal System at the Base of Loihi Seamount: A Seafloor Expression of the Subsurface. *Goldschmidt 2009 conference, Davos. Geochim. Cosmochim. Acta*, 73(13S1).
- Planavsky N, **Rouxel O**, Bekker A, Reinhard C & Lyons T. Iron Oxides, Dissolved Silica, and Regulation of Marine P Concentration. *Goldschmidt 2009 conference, Davos. Geochim. Cosmochim. Acta*, 73(13S1).
- Rouxel O**, Alt J, Ono S, Honnorez J & Shimizu N. Sulfur Isotope Evidence for Microbial Sulfate Reduction in Altered Oceanic Basalts. *Goldschmidt 2009 conference, Davos. Geochim. Cosmochim. Acta*, 73(13S1).
- Rouxel O.** Non-traditional Stable Isotope Systematics of Seafloor Hydrothermal Systems. *Eos Trans. AGU*, 90(22), Jt. Assem. Suppl., Abstract V13E-01
- Rouxel O** & Bekker A. Coupled Iron and Sulfur Isotope Constraints on the Archean and Paleoproterozoic Ocean Redox State. *Eos Trans. AGU*, 90(22), Jt. Assem. Suppl., Abstract U73A-02
- 2008**
- Wisch M., **Rouxel O.**, German C., Toner B., Edwards K. Iron Isotope Systematics in Hydrothermal Plume Fall-out at EPR9°50'N. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract B21A-0338
- Rouxel O.**, Escoube R., Pokrovsky O.S., Wisch M., Miller C. Iron Isotope Fractionation in Arctic Weathering Environments. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract C11A-0491
- German C.R., **Rouxel O.**, Edwards K.J. Time-Series Study of Post-Eruption Vent-Fluxes: EPR 9 50N. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract V53D-01
- Pyenson B.C. Sylvan J.B., Toner B.M. Rouxel O.J. German C.R., Edwards K.J. Microbial Diversity of Hydrothermal Vent Neutrally-Buoyant Plume Particles from 9° North, East Pacific Rise, After a Major Tectonic Event in 2005-2006. *Eos Trans. AGU*, 89(53), *Fall Meet. Suppl.*, Abstract OS41E-1274
- Ono S., Rumble D., **Rouxel O.**, Alt J., Shanks P. High-precision total sulfur isotope analysis (32S-33S-34S-36S) and its application to the studies of seafloor hydrothermal deposits and the deep biosphere. *ISI 2008*
- Rouxel O**, Escoube R & Donard O, Measurement of Germanium Isotope Composition in Marine Samples by Hydride Generation Coupled to MC-ICP-MS (invited). *Goldschmidt 2008 conference, Vancouver. Geochim. Cosmochim. Acta*, 72(12S) A809.
- Planavsky N, **Rouxel O**, Bekker A & Lyons T, Rare Earth Element Evidence for Redox Structure Evolution. *Goldschmidt 2008 conference, Vancouver.*
- Toner B, **Rouxel O**, Santelli C & Edwards K, Sea-Floor Weathering of Hydrothermal Chimney Sulfides at the East Pacific Rise 9N: Chemical Speciation and Isotopic Signature of Iron Using X-Ray Absorption Spectroscopy and Laser-Ablation MC-ICP-MS. *Goldschmidt 2008 conference, Vancouver.*
- Rouxel O**, Sources and Biogeochemical Cycling of Iron Isotopes in Marine Environments (Keynote). *Goldschmidt 2008 conference, Vancouver. Geochim. Cosmochim. Acta*, 72(12S) A809.
- Bekker A, Hofmann A, Rumble D & **Rouxel O**, Sulfidic Organic-Rich Shales in the Archean Low-Sulfate Ocean: Evidence for Transient Oxygenated Conditions, Enhanced Volcanism, or Low Sedimentation Rates? *Goldschmidt 2008 conference, Vancouver.*
- Ono S., **Rouxel O.**, Alt J., Rumble D., Probing the deep biosphere with multiple-sulfur isotope ratios of pyrite from oceanic basement rocks. (2008) *Astrobiology*, v8, p411.
- Bekker, A.; Barley, M.E.; Fiorentini, M.L.; **Rouxel, O.J.**; Rumble, D.; Beresford, S.W. Multiple S and Fe isotope constraints on the origin of NiS mineralization hosted in

Archean komatiites (solicited). *European Geosciences Union General Assembly 2008 Vienna, Austria. EGU2008-A-11593*

Rouxel, O.; Toner, B.M.; Craddock, P.; Bach, W.; Edwards, K.J. In situ analysis of Fe and S-isotope composition of hydrothermal chimneys by laser ablation MC-ICPMS. *European Geosciences Union General Assembly 2008 Vienna, Austria. EGU2008-A-11174*

Escoube, R.; **Rouxel, O.**; Donard, O. Measurement of Germanium isotope composition in marine samples by hydride generation coupled to MC-ICP-MS. *European Geosciences Union General Assembly 2008 Vienna, Austria. EGU2008-A-12035*

2007

Planavsky, N, **Rouxel, O**, Bekker, A Widespread Iron Oxidizing Bacterial Communities in a late Paleoproterozoic Marine Environment (2007) *Eos Trans. AGU, 88(52), Fall Meet. Suppl., Abstract B23G-05*

German, C R, Manganini, S J, **Rouxel, O J**, Edwards, K J TI: The impact of hydrothermally-sourced Fe on ocean biogeochemistry: new investigations from the East Pacific Rise, 9-10°N. (2007) *Eos Trans. AGU, 88(52), Fall Meet. Suppl., Abstract B33A-0851*

Escoube, R, **Rouxel, O**, Sholkovitz, E, Donard, O. Iron Isotope Composition of River Water During Estuarine Mixing: Case of North River (Massachusetts, USA) (2007) *Eos Trans. AGU, 88(52), Fall Meet. Suppl., Abstract H31C-0513*

Craddock, P R, Tivey, M K, Seewald, J S, **Rouxel, O**, Bach, W The Role of Magmatic Volatile Input, Near-surface Seawater Entrainment and Sulfide Deposition in Regulating Metal Concentrations Within Manus Basin Hydrothermal Systems (2007) *Eos Trans. AGU, 88(52), Fall Meet. Suppl., Abstract B23G-04*

Rouxel, O J, Edwards, K J, Moyer, C L, Wheat, G Biogeochemical Cycling of Iron Isotopes at Loihi Seamount (2007) *Eos Trans. AGU, 88(52), Fall Meet. Suppl., Abstract V34B-05*

Barley M., A. Bekker, M. Fiorentini, **O. Rouxel**, D. Rumble. Multiple sulphur sources for Archaean Komatiite-hosted Nickel sulfides confirmed by S and Fe isotopes : exploration implications (2007) *Geological Society of America Abstracts with Programs, Vol. 39, No. 6, p. 359*

Bennett S.A., **O.J. Rouxel**, D. Garbe-Schönberg, C.R. German. Iron isotope fractionation in a seafloor hydrothermal system: Variations in end-member vent fluids and changes throughout the buoyant plume (2007) *InterRidge Theoretical Institute 'Biogeochemical interaction at deep-sea vents', Woods Hole, 10th-14th September.*

Seewald, J.; Reeves, E.; Saccoccia, P.; **Rouxel, O.**; Walsh, E.; Craddock, P.; Tivey, M. A.; Bach, W.; Tivey, M. K. Tracing styles of hydrothermal circulation in Manus Basin using vent fluid composition (2007). *European Geosciences Union General Assembly 2007 Vienna, Austria*

2006

Planavsky N., R. Shapiro, A. Knudsen, **O. Rouxel**. Ocean Structure and ecology of the Animikie Basin Iron-Formations (2006). *Geological Society of America Abstracts with Programs, Vol. 38, No. 7, p. 125*

German C.R., S.Manganini, D.Adams, **O.Rouxel**, K.Edwards, T.Shank & L.Mullineaux Time-series studies of hydrothermal flux following the EPR 9N 2006 Eruption. (2006) *Eos Trans. AGU, 87(52), Fall Meet. Suppl., Abstract V23B-0605.*

Toner B., C.M. Santelli, J.J. Marlow, **O. Rouxel**, K.J. Edwards. Microbe-Mineral Interactions in Extinct Hydrothermal Chimneys at East Pacific Rise. (2006) *Eos Trans. AGU, 87(52), Fall Meet. Suppl., Abstract B14B-02.*

- John SG, Geis RW, Park G, Engwall A, Zhang Z, Bergquist BA, **Rouxel O**, Saito MA, Boyle EA. Distribution and fractionation of Zn stable isotopes in the oceans. (2006) *Eos Trans. AGU*, 87(52), *Fall Meet. Suppl.*, Abstract V13E-07.
- Seewald, J, Reeves, E, Saccocia, P, **Rouxel, O**, Walsh, E, Price, R, Tivey, M, Bach, W, Tivey, M, Scientific MGLN06MV. Water-Rock Reaction, Substrate Composition, Magmatic Degassing, and Mixing as Major Factors Controlling Vent Fluid Compositions in Manus Basin Hydrothermal Systems. (2006) *Eos Trans. AGU*, 87(52), *Fall Meet. Suppl.*, Abstract B34A-02.
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