

Curriculum Vitae

Personal Data

Name: Carsten J. Schubert
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Education

June 1995 **Ph.D.**, University of Bremen at Alfred Wegener Institute for Polar and Marine Research, Germany

March 1992 **Diploma**, Justus-Liebig-University, Giessen, Germany

Jan. 1990 **Prediploma**, Justus-Liebig-University, Giessen, Germany

1987 - 1992 Study of **Geology and Palaeontology**, Justus-Liebig-University, Giessen, Germany

1986 - 1987 Study of **Physics**, Justus-Liebig-University, Giessen, Germany

Employment

Since 09/ 2012 **Dept. Head**, Surface Waters-Research and Management, Research Scientist, **Eawag**, Kastanienbaum

Since 08/ 2001 **Group leader**, Biogeochemistry, Research Scientist, **Eawag**, Kastanienbaum

09/1997-2001 **Group leader**, Research Scientist, **Max Planck Institute for Marine Microbiology**, Bremen

06-09/1997 **Postdoctoral Fellow**, **Alfred Wegener Institute for Polar and Marine Research**, Bremerhaven

02-05/1997 **Postdoctoral Fellow**, Oceanography, **U.B.C.**, Vancouver

12/1995-01/ 1997 **Postdoctoral Fellow**, Oceanography, **U.B.C.**, Vancouver, (NATO fellowship)

07-11/1995 **Postdoctoral Fellow**, **Alfred Wegener Institute for Polar and Marine Research**

04/1992-06/1995 **PhD-student**, **Alfred Wegener Institute for Polar and Marine Research** and University of Bremen

1990 - 1991 **Research assistant**, Industrial based geological field work, "Geonorm" company, Giessen (part-time)

Research Interests

- Aerobic and anaerobic oxidation of methane in freshwater systems
- Anaerobic ammonium oxidation in marine and lacustrine water columns
- Emissions of greenhouse gases from Swiss reservoirs, lakes, and rivers
- Isotopic (C,N,O,H) and organic geochemical investigations in respect to the cycling of nutrients (C,N) and the preservation/degradation of organic matter
- Investigation of the nitrogen cycle (amino-sugars and amino acids as the main nitrogen compounds in organisms, stable isotopes on bulk and single compounds to understand food webs)
- Determination and use of biomarkers in organic materials (sediments, plankton, and bacteria), especially alkenones, n-alkanes, fatty-acids, alcohols, sterols, ether-lipids and lignin for identifying key processes taking place today or in the past (palaeo-reconstructions)

Teaching

2012-2014	Bachelor seminar tutor at the Dept. of Environmental System Sciences at ETH (Zurich)
2012-2014	Term paper tutor at the Dept. of Environmental System Sciences at ETH (Zurich)
2012-2014	Isotopic and Organic Tracers in Biogeochemistry (Master) at the Dept. of Environmental System Sciences at ETH (Zurich)
2012-2014	Field course Isotopic and Organic Tracers Laboratory (Master) at the Dept. of Environmental System Sciences at ETH (Zurich)
2006-2011	Lecture "Tracers in Biogeochemistry" at ETH Zurich (Master)
2006-2011	Field and lab course "Stable and radiogenic isotopic" at ETH Zürich (Master)
2004	Lecture "Biogeochemical Cycles" at ETH Zurich (Diploma studies)
2003	Seminar "Environmental Chemistry and Microbiology" at ETH Zürich (Diploma studies)
1999	Lecture "Oceanography/Paleoceanography" at the University of Giessen (Diploma studies)
1998, 1999	Lecture "Biogeochemistry" at the University of Bremen (Diploma studies)
1992-1995	Supervised several undergraduate and graduate students and technicians in the sedimentological and organic-geochemical laboratory of the Alfred Wegener Institute
August 1992	Class in geological field mapping with excursion (2 weeks) at the University of Bremen

Students supervised

PhD students

2014- 2013-2015	Patrick Stücheli, Organic nitrogen compounds in lakes Tabea Stötter, Paleo-Methane emissions, ERC grant, University Bern, co-supervised
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2012-2015	Sébastien Sollberger, Methane emissions from rivers, ETH funded, co-supervised
2012-2010-2014	Kirsten Oswald, Redox zones in lakes, SNF project Marie-Éve Randlett, ¹⁴ C on organic compounds in Lake Van, SNF Project
2009-2013	Jan Blee, AOM in Lake Lugano, SNF Project, University Basel, co-supervised
2009-2013	Christine Wenk, Nitrogen transformation in Lake Lugano, SNF Project, University Basel, co-supervised
2009-2014	Mathias Kirf, Microsensor development, funded by ETH, co-supervised
2009-2012	Sebastian Näher, Oxygen depletion in aquatic systems, EU Project Hypox
2008-2012	Dörte Carstens, Degradation of nitrogen containing molecules in lakes, SNF Project
2004-2008	Torsten Diem, Methane and N ₂ O in lakes and oceans, SNF Project
2003-2007	Lucia Klauser, Biomarker potential of nitrogen containing molecules, funded by ETH
2001-2005	Jutta Niggemann, Degradation of organic matter off the coast of Chile and Peru, funded by Max Planck Institute

Master or Diploma Students

2015	Kathrin Bross, Hydrogen isotopes in sterols from lake sediments, University Tübingen
2015	Corinne Jegge, Anaerobic oxidation of methane, Lac Cruz, EPFL
2010	Tabea Stoetter, ¹⁵ N on Phaeophytin in Lago di Cadagno, University of Basel
2009	Carmen Zwahlen, Terrestrial methane seep, ETHZ
2007	Nathan Solothurnmann, OM degradation in lakes, ETHZ
2006	Anne-Christine Pfaffen, Anaerobic methane oxidation in Lake Lungern, ETHZ
2005	Simon Schwarzenbach, Methane emissions from reservoirs of power plants, ETHZ
2005	Stefan Koch, Methane emissions from reservoirs of power plants, ETHZ
2004-2005	Ester Aguilar, Aerobic and anaerobic methane oxidation in Lake Rotsee, IHE
2003-2004	Torsten Diem, Methane and N ₂ O in reservoirs of power plants, ETHZ
2002-2003	Joaquin Jimenez, Degradation of chitin in lake sediments, IHE
2000	Manuela Scheuner, Degradation of organic matter under different redox conditions, University of Bremen

Postdocs in research group

2016-2015-	Typhaine Guillemot, Hydrogen isotopes on biomarker Lake Van Nemiah Ladd Hydrogen isotopes on sterols as a proxy for environmental changes
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2012-2014	Dörte Carstens Degradation of nitrogen compounds in lacustrine systems
2012-2014	Prosper Zigah Biogeochemical processes in lake redox zones
2008-2010	Torsten Diem Methane emissions from lakes and reservoirs
2007-2009	Achim Bechtel Marie Curie Fellow, OM degradation in lakes
2005-2006	Jutta Niggemann Amino acids in Lake Baikal sediment traps
2004-2005	Françoise Lucas Anaerobic methane oxidation in lakes
2003-2005	Edith Kaiser Anaerobic methane oxidation in the Black Sea water column

Field Experience

Numerous sampling campaigns on Swiss lakes (Lake Lugano, Zug, Brienz, Lucerne, Rotsee, Lago di Cadagno, Lac Léman)

Oceanographic cruises: 8 Participations on research cruises including chief scientist position (Black Sea, Pacific Ocean, Arctic Ocean, Atlantic Ocean)

Memberships in Professional Societies

AGU, American Geophysical Union
 EAOG, European Association of Organic Geochemists
 The Geochemical Society
 ASLO, American Society of Limnology and Oceanography

Reviewer for Journals

Science, Nature, Nature Communications, Nature Climate Change, Marine Chemistry, Paleoceanography, Geochimica et Cosmochimica Acta, Marine Geology, Limnology & Oceanography, Environmental Science & Technology, Organic Geochemistry, Gcubed, Global Biogeochemical Cycles, FEMS Microbial Ecology, Chemical Geology, Journal of Earth System Science, Journal of Great Lakes Research, Archives of Microbiology, Aquatic Microbial Ecology, Aquatic Geochemistry, Continental Shelf Research, Journal of Chromatography A, Environmental Microbiology, Ecological Monographs

Reviewer for Funding agencies

DFG, German research foundation
 NSF, National Science Foundation, USA
 NWO Earth and Life Science, Dutch research council
 SNF, Swiss National Science Foundation
 Fondecyt, Chilean national research funding

U.S.-Israel Binational Science Foundation
NERC, National Science Foundation, UK
Darwin Center for Biogeosciences (Netherlands)
American Chemical Society Petroleum Fund

Conferences

Local organizing committee of the International Meeting of Organic Geochemists (IMOG, Interlaken 2011)
Organized numerous sessions at Goldschmidt, ASLO

Personal

Hobbies: Enjoy dancing, hiking, skiing, cooking
Languages: German, English, Spanish, French (school knowledge, needs to be brushed up)

Publications Carsten J. Schubert

Publication metrics 12/2015

WoS (H-index 26, 3596 citations)

Google scholar (H-index 30, i10-index 62, 5070 citations)

Peer-reviewed articles and book chapters

90. Sauer, S., Knies, J., Lepland, A., Chand, S., Eichinger, F., Schubert, C.J. 2015: Hydrocarbon sources inferred from cold seeps on the shelf offshore northern Norway **Chemical Geology**, Vol. 417, 371-382.
89. Blees, J., Niemann, H., Erne, M., Zopfi, J., Schubert, C.J., and Lehmann, M.F. 2015: Spatial variations in surface water methane super-saturation and emission in Lake Lugano, southern Switzerland.- **Aquatic Sciences**, DOI 10.1007/s00027-015-0401-z.
88. Bleicher, N., and Schubert, C.J. 2015: Why are they still there? A model of accumulation and decay of organic prehistoric cultural deposits. - **Journal of Archaeological Science**, 10.1016/j.jas.2015.06.010.
87. Oswald, K., Milucka, J., Brand; A., Wehrli, B., Kuypers, M.M.M., and Schubert, C.J. 2015: Light dependent aerobic methane oxidation reduces methane emissions from seasonally stratified lakes. - **PLoS1**, DOI:10.1371/journal.pone.0132574.
86. Weber, Y., De Jong, C., Rijpstrab, W.I.C., Hopmans, E.C., Stadtnitskaja, A., Schubert, C.J., Lehmann, M., Sinninghe Damsté, J.S., Niemann, H. 2015: Identification and carbon isotope composition of a novel branched GDGT isomer in lake sediments: Evidence for lacustrine brGDGT production, - **Geochimica et Cosmochimica Acta**, Vol. 154, 118-129.
85. Milucka, J., Kirf, M., Krupke, A., Lam, P., Kuypers, M.M.M., and Schubert, C.J. 2015: Methane oxidation coupled to oxygenic photosynthesis in anoxic waters. - **ISME Journal**, doi:10.1038/ismej.2015.12.
84. Zigah, P., Oswald, K., Brand, A., Dinkel, C., Wehrli, B., and Schubert, C.J. 2015: Molecular and isotopic insights into methane oxidation and associated methanotrophic communities in the water column of a tropical lake (Lake Kivu).- **Limnology & Oceanography**, Vol. 60. (2), doi: 10.1002/lno.10035.
83. Randlett, M.E., Sollberger, S., Del Sontro, T., Müller, B., Corella, J.P., Wehrli, B., and Schubert, C.J. 2015: Mineralization pathways of organic matter deposited in a river-lake transition of the Rhone River Delta, Lake Geneva. **Environmental Science: Processes and Impacts**, Vol. 17, 370 - 380.
82. Blees, J., Niemann, H., Wenk, C.B., Zopfi, J., Schubert, C.J., Jänzer, J.S., Veronesi, M.L., and Lehmann, M.F. 2014: Bacterial methanotrophs drive the formation of a seasonal anoxic benthic nepheloid layer in an alpine lake. - **Limnology and Oceanography**, Vol .59 (4), 1410–1420.
81. Randlett, M.E., Coolen, M.J.L., Stockhecke, M., Pickarski, N., Litt, T., Balkema, C., Kwiecien, O., Tomonaga, Y., Wehrli, B., and Schubert, C.J. 2014: Alkenone distribution in Lake Van sediments over the last 600 kyrs: influences on temperature and haptophyte species composition, **Quaternary Science Review**, Vol. 104, 53-62.
80. Hiller, R.V., Bretscher, D., DelSontro, T., Diem, T., Eugster, W., Henneberger, R., Hobi, S., Hodson, E., Imer, D., Kreuzer, M., Künzle, T., Merbold, L., Niklaus, P.A., Rihm, B., Schellenberger, A., Schroth, M.H., Schubert, C.J., Siegrist, H., Stieger, J., Buchmann, N., and Brunner, D. 2014: Anthropogenic and natural methane fluxes in Switzerland synthesized within a spatially-explicit inventory. – **Biogeosciences**, Vol. 11, 1941-1960.
79. Kirf, M.K., Røy, H., Holtappels, M., Fischer, J., Schubert, C.J., and Wehrli, B. 2015. Redox gradients at the low oxygen boundaries. – **Aquatic Sciences**, Vol. 77, 81-93.
78. Friedrich, J., Janssen, F., Aleynik, D., Bange, H., Boltacheva, N., Cagatay, N., Dale, A. W. , Etiope, G., Erdem, Z., Geraga, M., Gilli, A., Gomoiu, M.T., Hall P., Hanson,

- D., He, Y., Holtappels M., Kirf, M., Kononets, M., Kononov, S., Lichtschlag, A., Livingstone, D.M., Marinaro, G., Mazlumyan, S., Naeher, S., North, R.P., Papatheodorou, G., Pfannkuche, O., Prien, R., Rehder, G., Schubert, C.J., Soltwedel, Th., Sommer, St., Stahl, H., Stanev, E.V., Teaca, A., Tengberg, A., Waldmann, Ch., Wehrli, B., and Wenzhöfer, F. 2014: Investigating hypoxia in aquatic environments: diverse approaches to addressing a complex phenomenon. – **Biogeosciences**, Vol. 11, 1215–1259.
77. Bles, J., Niemann, H., Wenk, C.B., Zopfi, J., Schubert, C.J., Kirf, M.K., Veronesi, M.L., Hitz, C., and Lehmann, M.F. 2014: Micro-aerobic bacterial methane oxidation in the chemocline and anoxic water column of deep south-Alpine Lake Lugano (Switzerland). – *Limnology and Oceanography*, Vol. 59(2), 311-324.
76. Naeher, S., Smittenberg, R.H., Peterse, F., Niemann, H., Zigah, P., and Schubert, C.J. 2014: Tracing the methane cycle with lipid biomarkers in Lake Rotsee (Switzerland). – **Organic Geochemistry**, Vol. 66, 174-181.
75. Naeher, S., Peterse, F., Smittenberg, R.H., Niemann, H., Zigah, P., and Schubert, C.J. 2014: Sources of glycerol dialkyl glycerol tetraethers (GDGTs) in catchment soils, water column and sediments of Lake Rotsee (Switzerland) – Implications for the application of GDGT-based proxies for lakes. – **Organic Geochemistry**, Vol. 66, 164-173.
74. Vuillemin, A., Ariztegui, D., Nobbe, G., and Schubert, C.J. 2014: Influence of methanogenic populations in Holocene lacustrine sediments revealed by clone libraries and fatty acid biogeochemistry. – **Geomicrobiology Journal**, Vol. 31:4, 285-298.
73. Kirf, M., Dinkel, C., Schubert, C.J. and Wehrli, B. 2013: Submicromolar oxygen profiles at the oxic-anoxic boundary of temperate lakes. – **Aquatic Geochemistry**, Vol. 20 (1), 39-57.
72. Sollberger, S. Corella, J.P., Girardclos, S., Randlett, M.-E., Schubert, C.J., Senn, D.B., Wehrli, B., DelSontro, T. 2013: Spatial heterogeneity of benthic methane dynamics in the subaquatic canyons of the Rhone River Delta (Lake Geneva). – **Aquatic Sciences**, Vol.76, 89-101.
71. Carstens, D., Lehmann, M. F., Hofstetter, T. B., and Schubert, C. J. 2013: Amino acid nitrogen isotopic composition patterns in lacustrine sedimenting matter. – **Geochimica Cosmochimica Acta**, Vol. 121, 328–338.
70. Glombitza, C., Stockhecke, M., Schubert, C.J., Vetter, A., and Kallmeyer, J. 2013: Sulfate reduction in deep sediment cores from the saline, alkaline Lake Van (Eastern Anatolia, Turkey). – **Frontiers in Extreme Microbiology**, Vol. 4, DOI 10.3389/fmicb.2013.00209.
69. Naeher, S., Smittenberg, R.H., Gilli, A., Hamann, Y., North, R., and Schubert, C.J. 2013: Seasonally resolved redox dynamics of manganese and quantitative bottom water oxygen reconstructions using Mn/Fe ratios in Lake Zurich, Switzerland. – **Chemical Geology**, Vol. 352, 125-133.
68. Naeher, S., Schaeffer, P., Adam, P., and Schubert, C.J. 2013: Maleimides in recent sediments - Using chlorophyll degradation products in palaeoenvironmental reconstructions. – **Geochimica Cosmochimica Acta**, Vol. 119, 248–263.
67. Krista E. Köllner, K.E., Carstens, D., Keller, E., Vazquez, F., Schubert, C.J., Zeyer, J., Bürgmann, H. 2013.: Impact of particulate organic matter composition and degradation state on the vertical structure of particle-associated and planktonic lacustrine bacteria.- **Aquatic Microbial Ecology**, Vol. 68, 81-92.
66. Vuillemin, A., Ariztegui, D., Coninck, A., Lücke, A. Mayr, C. Schubert, C.J., and the PASADO Scientific Team 2013: Origin and significance of diagenetic concretions in sediments of Laguna Potrok Aike, southern Argentina. – **Journal of Palaeolimnology**, DOI 10.1007/s10933-013-9723-9.
65. á Norði, K., Thamdrup, B., Schubert, C.J. 2013: Anaerobic Oxidation of Methane in iron-rich freshwater sediment. – **Limnology and Oceanography**, Vol. 58 (2), 546–554.
64. Wenk, C.B., Bles, J., Zopfi, J., Veronesi, M., Bourbonnais, A., Schubert, C.J., Niemann, H., Lehmann, M.F. 2013: Anammox bacteria and sulphide-dependent

- denitrifiers co-exist in the water column of the eutrophic Lake Lugano - **Limnology and Oceanography**, Vol. 58 (1), 1-12.
63. Naeher, S., Geraga, M., Ferentinos, G., Kaberi, E., Papatheodoru, G., and Schubert, C.J. 2012: Environmental variations in a semi-enclosed embayment (Amvrakikos Gulf, Greece) – Reconstructions based on benthic foraminifera abundance and lipid biomarker pattern. – **Biogeosciences**, Vol. 9, 5081–5094.
 62. Litt, T., Anselmetti, F.S., Baumgarten, H., Beer, J., Cagatay, N., Cukur, D., Damci, E., Glombitza, C., Haug, G., Heumann, G., Kallmeyer, J., Kipfer, R., Krastel, S., Kwiecien, O., Meydan, A.F., Orcen, S., Pickarski, N., Randlett, M.E., Schmincke, H.U., Schubert, C.J., Sturm, M., Sumita, M., Stockhecke, M., Tomonaga, Y., Vigliotti, L., Wonik, T. 2012: 500,000 Years of environmental history in Eastern Anatolia: The PALEOVAN Drilling Project. - **Scientific Drilling**, Vol. 14, 18-29.
 61. Knies, J., Grasby, S.E., Beauchamp, B., Schubert, C.J. 2012: Water mass denitrification during the latest Permian extinction in the Sverdrup Basin, Arctic Canada. - **Geology**, doi:10.1130/G33816.1.
 60. Carstens, D. and Schubert, C.J. 2012: Amino acid and amino sugar transformation during sedimentation in lacustrine systems – **Organic Geochemistry**, Vol. 50, 26-35.
 59. Naeher, S., Smittenberg, R.H., Gilli, A., Kirilova, E.P., Lotter, A.F., and Schubert, C.J. 2012: The impact of recent lake eutrophication on microbial community changes - revealed by high resolution lipid biomarker records in Rotsee (Switzerland). – **Organic Geochemistry**, Vol. 49, 86-95.
 58. Carstens, D., Köllner, K., Bürgmann, H., Wehrli, B., and Schubert, C.J. 2012: Amino sugar degradation and transformation in two lacustrine systems of different trophic state. – **Geochimica Cosmochimica Acta**, Vol. 89, 159–172.
 57. Schouten, S., Rijpstra, W.I.C., Durisch-Kaiser E., Schubert, C.J., and Sinninghe Damsté, J.S. 2012: Distribution of glycerol dialkyl glycerol tetraether lipids in the water column of Lake Tanganyika. – **Organic Geochemistry**, Vol. 53, 34–37.
 56. Alkhatib, M., Schubert, C.J., del Giorgio, P., Gelin, Y., Lehmann, M.F. 2012: Organic matter reactivity indicators in sediments of the St. Lawrence Estuary. - **Estuarine, Coastal and Shelf Science**, Vol. 102-103, 36-47.
 55. Diem, T., Koch, S., Schwarzenbach, S., B. Wehrli, B. Schubert, C. J. 2012: Greenhouse gas emissions (CO₂, CH₄, and N₂O) from several perialpine and alpine hydropower reservoirs by diffusion and loss in turbines. – **Aquatic Sciences**, Vol. 74 (3), 619-635.
 54. Schubert, C.J., Diem, T., Eugster, W. 2012: Strong Microbial Oxidation during Late Season Turnover Leads to Low Methane Emissions from Lakes. - **Environmental Science & Technology**, 46 (8), 4515–4522.
 53. Köllner, K., Carstens, D., Keller, E., Vazquez, F., Schubert, C.J., Zeyer, J. and Bürgmann, H. 2012: Bacterial Chitin Hydrolysis in Two Lakes of Contrasting Trophic Status. – **Applied and Environmental Microbiology**, Vol. 78 (3), 695-704.
 52. Meckler, A.N., Ren, H., Sigman, D.M., Gruber, N., Plessen, B., Schubert, C.J., and Haug, G.H. 2011: Deglacial nitrogen isotope changes in the Gulf of Mexico: Evidence from bulk sedimentary and foraminifera-bound nitrogen in Orca Basin sediments. – **Paleoceanography**, Vol. 26, PA4216, doi:10.1029/2011PA002156.
 51. Pasche, N., Schmid, M., Vazquez, F., Schubert, C. J., Wüest, A.J. Kessler, J. Pack, M.A., Reeburgh, W.S., and Bürgmann, H. 2011: Methane sources and sinks in Lake Kivu. – **Journal of Geophysical Research**, Vol. 116, G03006, doi:10.1029/2011JG001690.
 50. Durisch-Kaiser E., Schmid M., Peeters F., Kipfer R., Dinkel C., Diem T., Schubert C.J., Wehrli B. 2011: What prevents out-gassing of methane to the atmosphere in Lake Tanganyika? – **Journal of Geophysical Research**, Vol. 116, G02022, doi:10.1029/ 2010JG001323.
 49. Liebner, S., Zeyer, J., Wagner, D., Schubert, C.J., Pfeiffer, E., and Knoblauch, C. 2011: Methane oxidation associated to submerged brown-mosses reduces methane emissions from Siberian polygonal tundra. – **Journal of Ecology**, Vol. 99, 914-922.

48. Schubert, C.J., Vazquez, F., Loesekann, T., Knittel, K. and Boetius, A. 2011: Anaerobic oxidation of methane in sediments of a freshwater system (Lago di Cadagno) - **FEMS Microbial Ecology**, Vol. 76, 26-38.
47. Sherwood, A. S., Lehmann, M.F., Schubert, C.J., Scott, D.B., and McCarthy, M.D. 2011: Nutrient regime shift in the western North Atlantic indicated by compound-specific $\delta^{15}\text{N}$ of deep-sea gorgonian corals. - **PNAS**, Vol. 108, 1011-1015.
46. Etiope, G., Zwahlen, C., Anselmetti, F.S., Kipfer, R. and Schubert, C.J. 2010: Origin and flux of a gas seep in the Northern Alps (Giswil, Switzerland). - **Geofluids**, Vol. 10, 476–485.
45. Schubert, C.J., Lucas, F., Durisch-Kaiser, E., Stielri, R., Diem, T., Scheidegger, O., Vazquez, F., and Müller, B. 2010: Oxidation and emission of methane in a monomictic Lake (Rotsee, Switzerland). - **Aquatic Sciences**, Vol. 72, 4, 455-466.
44. Bechtel, A., Smittenberg, R.H., Bernasconi, S., and Schubert, C.J. 2010: Distribution of branched and isoprenoid tetraether lipids in an oligotrophic and a eutrophic Swiss lake: Insights into sources and GDGT-based proxies. - **Organic Geochemistry**, Vol. 41, 822-832..
43. Bechtel, A. and Schubert, C.J. 2009: A biogeochemical study of sediments from the eutrophic Lake Lugano and the oligotrophic Lake Brienz, Switzerland. - **Organic Geochemistry**, Vol. 40. 1100-1114.
42. Halm, H., Musat, N., Lam, P., Langlois, R., Musat, F., Peduzzi, S., Lavik, G., Schubert, C.J., LaRoche, J. and Kuypers, M.M.M. 2009: Co-occurrence of denitrification and nitrogen fixation in a meromictic lake, Lake Cadagno (Switzerland). - **Environmental Microbiology**, Vol.11. 1945-1958.
41. Bechtel, A. and Schubert, C.J. 2009: Biogeochemistry of particulate organic matter from lakes of different trophic levels in Switzerland. - **Organic Geochemistry**, Vol. 40. 441-454.
40. Diem, T., Koch, S., Schwarzenbach, S., Wehrli, B. and Schubert, C.J. 2008: Greenhouse gas emissions (CO_2 , N_2O , CH_4) from perialpine and alpine hydropower reservoirs. - **Biogeosciences Discussion** 5. 1-38.
39. Meckler, A. N., Schubert, C.J., Hochuli, P.A., Plessen, B., Birgele, D., Flower, B.P., Hinrichs, K.-U., and Haug, G.H. 2008: Glacial to Holocene terrigenous organic matter input to sediments from Orca Basin, Gulf of Mexico – a combined optical and biomarker approach. - **Earth and Planetary Science Letter**, Vol. 272. 251-263.
38. Holzner, C.P., Mc Ginnis, D.F., Schubert, C.J., Kipfer, R. and Imboden, D.M. 2008: Noble gas anomalies related to high-intensity methane gas seeps in the Black Sea. - **Earth and Planetary Science Letter**, Vol. 265. 396–409.
37. Neretin, L., Abed, R., Schippers, A., Schubert, C.J., Kohls, K., and Kuypers, M.M.M. 2007: Sulfate reducing bacteria and their role in carbon cycling in the Black Sea water column. - **Environmental Microbiology**, Vol. 9. 3019-3024.
36. Lam, P., Jensen, M.M. Lavik, G., McGinnis, D., Müller, B., Schubert, C.J., Amann, R.I., Thamdrup, B., and Kuypers, M.M.M. 2007: Linking crenarchaeal and bacterial nitrification to anammox in the Black Sea. - **PNAS**, Vol. 104. 7104-7109.
35. Knies, J., Brookes, S., and Schubert, C.J. 2007: Re-assessing the nitrogen signal in continental margin sediments: New insights from the high northern latitudes. - **Earth and Planetary Science Letter**, Vol. 253. 471-484.
34. Niggemann, J., Ferdelman, T.G., Lomstein, B.A., Kallmeyer, J. and Schubert, C.J. 2007. How depositional conditions control input, composition, and degradation of organic matter in sediments from the Chilean coastal upwelling region. - **Geochimica Cosmochimica Acta**, Vol. 71. 1513-1527.
33. Schubert, C.J., Kaiser-Durisch, E., Wehrli, B., Thamdrup, B., and Kuypers, M.M.M. 2006: Anaerobic ammonium oxidation in a tropical freshwater system (Lake Tanganyika). – **Environmental Microbiology**, Vol. 8. 1857-1863.
32. Schubert, C.J., Coolen, M., Neretin, L., Schippers, A., Abbas, B., Durisch-Kaiser, E., Wehrli, B., Hopmans, E., Sinninghe-Damstè, J., Wakeham, S., and Kuypers, M.M.M. 2006: Anaerobic and aerobic methanotrophs in the Black Sea water column. **Environmental Microbiology**, Vol. 8. 1844-1856.

31. Lomstein B. A., Jørgensen, B. B. Schubert, C.J. and Niggemann, J. 2006: Amino acid biogeo- and stereochemistry in coastal Chilean sediments. - **Geochimica Cosmochimica Acta**, Vol. 70 (12). 2970-2989.
30. Niggemann, J. and Schubert, C.J. 2006: Sources and fate of amino sugars in coastal Peruvian sediments. - **Geochimica Cosmochimica Acta**, Vol. 70 (9). 2229-2237.
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Project	Start	End	Amount	Currency	Co-applicants
EU Project Crimea	01.02.2003	31.01.2006	550'000	CHF	EU consortium
EU Marie Curie CARBOCYC	01.04.2007	31.03.2009	240'000	CHF	Bechtel
EU Project Hypox	01.04.2009	31.03.2012	320'000	Euro	EU consortium
COST Pergamon "Mechanistic understanding of the distribution and transport of methane in sediment pore water using noble gases"	01.10.2011	30.09.2013	180'000	CHF	Kipfer
Cces Maiolica	01.02.2008	31.01.2012	115'000	CHF	ETH
SNF Redox cycling	01.08.2004	31.07.2006	150'000	CHF	Wehrli
SNF Nutrient cycling and methane production in Lake Kivu	01.01.2006	31.12.2008	326'000	CHF	Wuest/Schmid
SNF Projekt „Degradation and transformation of lacustrine organic nitrogen compounds: microbiology and biogeochemistry“	01.04.2008	31.03.2011	300'100	CHF	Buergmann
SNF Additional 1 year funding "Degradation and transformation of lacustrine organic nitrogen compounds: microbiology and biogeochemistry“	01.04.2011	31.03.2012	108'000	CHF	Buergmann
SNF Methan oxidation pathways	01.04.2011	31.03.2014	489'322	CHF	Wehrli
SNF Factors governing methane oxidation pathways	01.04.2014	31.03.2016	259'197	CHF	Wehrli
SNF Lake Kivu – Learning from the past for managing its future			40'000	CHF	Schmid
SNF The Swiss contribution to the Lake Van Drilling Project (incl. Science Part)	01.01.2010	31.12.2013	1'750'000	CHF	Lake Van team
SNF Biomarkers and stable isotopic composition Lake Van sediments (Lead Agency, Swiss Part)	01.10.2014	30.09.2016	228'200	CHF	Bechtel/Van Team
SNF Biomarkers and stable isotopic composition Lake Van sediments (Lead Agency, Austrian Part)	01.10.2014	30.09.2016	103'000	Euro	Bechtel/Van Team
SNF Geochemical appraisal of palaeovegetation and climate oscillation in the Late Miocene of Western Bulgaria	01.09.2011	30.09.2011	1'000	CHF	
SNF Alteration of isotopic signatures during organic matter degradation	01.02.2011	31.03.2013	213'000	CHF	Lehmann
SNF Biogeochemical fluxes in South-Alpine Lakes	01.12.2008	30.11.2011	166'000	CHF	Lehmann
SNF Microbes and oxidants involved in methane oxidation in South Alpine Lake Lugano	01.12.2011	30.11.2012	61'000	CHF	Lehmann
SNF R'Equip: High Resolution in situ nutrient mapping	01.12.2009	30.11.2010	128'000	CHF	Wehrli
SNF R'Equip: Anaerobic oxidation of methane in sediments and water column of the Black Sea and in lakes of Switzerland	01.11.2002	01.11.2002	115'132	CHF	Wehrli
Eawag-DF – Stream Food Webs	01.02.2014	01.02.2015	14'500	CHF	Robinson
Eawag-DF – The age of terrestrial biomarkers in lacustrine deposits as an historical indicator for soil carbon dynamics	01.02.2014	01.02.2015	120'000	CHF	Dubois et al.
Eawag-DF – Compound specific N isotopes in amino acids method development	01.01.2011	31.12.2011	55'000	CHF	Senn/Hofstetter
SEON Swiss Earth Observatory Network	01.01.2013	31.12.2016	125'000	CHF	Wuest/Wehrli