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Citizenship: German

Marital Status: married, 2 children

Home Address: Liebensteiner Str. 6, 28205 Bremen, Germany

Academic Career

- 2001 Award of the Postdoctoral Degree (Habilitation); Bremen University – Dept. of Geosciences
Post-Doctoral Thesis: Geochemical Processes and Signals in Marine Sediments – Examples from the South Atlantic
- 1994 Dr. rer. nat. (equivalent to Ph.D.); Bremen University – Dept. of Geosciences
Doctoral Thesis: Early Diagenetic Fluxes in Surface Sediments of the Equatorial and Eastern South Atlantic
- 1991 Dipl. Geol. (comparable with M.Sc.); Bremen University – Dept. of Geosciences
- 1986 Start the degree of Geology and Paleontology at the University of Bonn (Germany)

General Research Interests

Marine Geochemistry, Marine Geology, Paleoceanography/-climatology

(application of known as well as development of new geochemical proxies for temporal variations in environmental conditions; source-to-sink coupling and alteration processes involved; early diagenetic processes in general; processes at the benthic interface and their implication for oceanic budgets; development of new techniques and methods for marine biogeochemical investigations; transport-reaction modeling of low temperature (bio)geochemical processes)

Employments

- 02.2006 – present Permanent position as senior scientist at Bremen University
- 04.2003 – 07.2003 Professorship (level C3, as a stand-in) at the Dept. for Geo- and Environmental Sciences, Ludwig-Maximilian University Munich
- 10.2001 – 01.2006 Associate Professor (level C2) at the Department of Geosciences – Geochemistry and Hydrogeology, Bremen University
- 10.2000 – 09.2001 Associate Postdoctoral position at the Department of Geosciences, Bremen University
- 10.1994 – 09.2000 Assistant Professor (level C1) at the Department of Geosciences – Geochemistry and Hydrogeology, Bremen University
- 03.1994 – 10.1994 Post-Doctoral Research Scientist at the Department of Geosciences, Bremen University
- 03.1991 – 09.1994 Scientific Employee (Ph.D. Student) at the Department of Geosciences, Bremen University
- 1989 and 1990 Industrial training at the Wintershall AG – Exploration and production of oil and gas (Barnstorf – D) and at the BEB Gas and Oil GmbH (Hannover – D)
- 01.1983 – 06.1983 Engineer in surveying at the land registry Herford (D)

Publications

H-index: 46 (*Google Scholar*)

a) Peer-reviewed publications in international journals (* senior author):

- Kasper T, Kirsten K, Schefuß E, Zabel M, Hahn A, Carr A, Mäusbacher R, Strobel P & T Haberzettl (in prep.) Climate and environmental variability in the Winter-Rainfall-Zone of South Africa since the LGM – A comprehensive study of the Verlorenvlei sedimentary sequence
- Zhu Q-Z, Elvert M, Meador TB, Schröder JM, Docana KD, Becker KW, Elling FJ, Lipp JS, Heuer VB, Zabel M & K-U Hinrichs (in rev.) Lipidomics and isotope geochemistry of archaeal lipids in the Black Sea and underlying sediments constrain their sources and turnover

- 109 Flores E, Fernández-Urruzola I, Cantarero SI, Pizarro-Koch M, Zabel M, Sepúlveda J & O Ulloa (2023) Particulate organic matter in the Atacama Trench: Tracing sources and possible transport mechanisms to the hadal seafloor. *J. Geophys. Res. Lett. Biogeosci.*
- 108* Kossack M, Scholz F, Anderson CH, Vosteen P, Su C-C, Mohrholz V & M Zabel (2023) Sedimentary molybdenum and uranium cycling under seasonally contrasting redox conditions on the Namibian Shelf. *Geochim. Cosmochim. Acta*.
- 107 Behrendt N, Menapace W, Bohrmann G, Zabel M & AJ Kopf (2023) Pore water signatures and gas hydrates occurrence in and around the Olimpi mud volcano field, south of Crete. *Marine and Petroleum Geology* 156, doi: 10.1016/j.marpetgeo.2023.106429.
- 108 Vosteen P, Spiegel T, Gledhill M, Frank M, Zabel M & F Scholz (2022) Sedimentary iron cycling across the Amazon shelf: Implications for the reconstruction of paleo-redox conditions based on sedimentary iron speciation. *G3*, doi: 10.1029/2022GC010543.
- 107 Oguri K, Turnewitsch R, Masqué P, Zabel M, Stewart HA, Stehlikova J, MacKinnon G, Rowden A, Wenzhöfer F & RN Glud (2022) Sedimentation Accumulation and Carbon Burial in Four Hadal Trench Systems. *JGR Biogeosciences*, doi: 10.1029/2022JG006814.
- 106 Chuang P-C, Anderson CH, Kossack M, Fabian J, Su C-C, Vosteen P, Zabel M, Scholz F, Schulz-Vogt HN, Sommer S & AW Dale (2022) Nutrient turnover by large sulfur bacteria on the Namibian mud belt during the low productivity season. *Frontiers in Marine Science – Mar. Biogeochem.*
- 105 Zabel M, Glud RN, Sanei H, Elvert M, Pape T, Chuang PC, Okuma E, Geprägs P & M Kölling (2022) High carbon mineralization rates in subseafloor hadal sediments - Result of frequent mass wasting. *G3*, doi: 10.1029/2022GC010502.
- 104 Arnault J, Niezgoda K, Jung G, Hahn A, Zabel M, Schefuß E & H Kunstmann (2022) Disentangling the Contribution of Moisture Source Change to Isotopic Proxy Signatures: Deuterium Tracing with WRF-Hydro-Iso-Tag and Application to Southern African Holocene Sediment Archives. *Journal of Climate*, doi: 10.1175/JCLI-D-22-0041.1.
- 103 Gensel J, Humphries MS, Zabel M, Sebag D, Hahn A, & E Schefuß (2022) Origin, transport, and retention of fluvial sedimentary organic matter in South Africa's largest freshwater wetland, Mkhuze Wetland System. *Biogeosciences*. 19, doi: 10.5194/bg-19-2881-2022.
- 102 Flores E, Cantarero SI, Ruiz-Fernández P, Dildar N, Zabel M, Ulloa O & S Sepúlveda (2022) Bacterial and eukaryotic intact polar lipids point to in situ production as a key source of labile organic matter in hadal surface sediment of the Atacama Trench. *Biogeosci.* 19, 1395–1420, doi: 10.5194/bg-19-1395-2022.
- 101 Green AN, Cooper JAG, Loureiro C, Dixon S, Hahn A & M Zabel (2021) Stormier mid-Holocene southwest Indian Ocean due to poleward trending tropical cyclones. *Nature Geosci.* doi:10.1038/s41561-021-00842-w
- 100 Riedinger N, Scholz F, Abshire ML & M Zabel (2021) Persistent deep water anoxia in the eastern South Atlantic during the last ice age. *PNAS*. doi: 10.1073/pnas.2107034118
- 99* Chuang P-C, Dale AW, Heuer VB, Hinrichs K-U & M Zabel (2021) Coupling of dissolved organic carbon, sulfur and iron cycling in Black Sea sediments over the Holocene and the late Pleistocene: insights from an empirical dynamic model. *Geochim. Cosmochim. Acta*. doi: 10.1016/j.gca.2021.04.032
- 98* Wenau S, Spiess V & M Zabel (2021) Giant seafloor depressions caused by slope failure and bottom currents on the Namibia continental margin. *G3*. doi: 10.1029/2020GC009548
- 97* Hahn A, Neumann f, Finch J, Miller C, Cawthra H, Frankland T Schefuß E & M Zabel (2021) Mid- to Late Holocene climatic and anthropogenic influences in Pondoland, South Africa. *Quat. Sci. Rev.*, 261, 106938.
- 96 Dyer S, Green A, Cooper A, Hahn A & M Zabel (2021) Response of a wave-dominated delta to antecedent conditioning and fluctuating rates of postglacial sea-level rise. *Mar Geol.* 434, 106435
- 95* Hahn A, Schefuß E, Groeneveld J, Miller C & M Zabel (2021) Glacial to interglacial climate variability in the southeastern African subtropics (25- 20°S). *Climate of the Past* 17, 345–360.
- 94 Pape T, Ruffine L, Sultan N, Hong W-l, Riboulot V, Peters CA, Kölling M, Zabel M, Garziglia S & G Bohrmann (2020) Shallow gas hydrate accumulations at a Nigerian deep-water pockmark - Quantities and dynamics. *J. Geophys. Res.* 10.1029/2019JB018283.
- 93 Humphries M, Green A, Higgs C, Strachan K, Hahn A, Pillay L & M Zabel (2020) High-resolution geochemical records of extreme drought in southeastern Africa during the past 7000 years. *Quat. Sci. Rev.* 236; 106294.
- 92 Engelbrecht L, Green AN, Cooper JAG, Hahn A, Zabel M & CF Mackay (2020) Construction and evolution of submerged deltaic bodies on the high energy SE African coastline: the interplay between relative sea level and antecedent controls. *Mar. Geology* 424, 106170
- 91 Cawthra HC, Frenzel P, Hahn A, Compton JS, Gander L & M Zabel (2020) Seismic stratigraphy of the inner to mid Agulhas Bank, South Africa. *Quat. Sci. Rev.* 235, 105979.

- 90 Aiello I, Heuer V, Hinrichs K-U, Beaufort L, Goldhammer T & M Zabel (2020) Anatomy of a 'suspended' seafloor in the dense brine waters of the hypersaline Urania Basin. *Deep-Sea Research II* 171, 104626
- 89 Miller C, Hahn A, Zabel M, Schefuß E & D Liebrand (2020) Mid- and low latitude effects on eastern South African rainfall over the Holocene. *Quat. Sci. Rev.*, 229, 106088.
- 88 Pretorius L, Green AN, Cooper JAG, Hahn A & M Zabel (2019) Outer- to inner-shelf response to stepped sea-level rise: Insights from incised valleys and submerged shorelines. *Marine Geology* 416, 105979
- 87* Kölling M, Bouimetarhan I, Bowles MW, Felis T, Goldhammer T, Hinrichs K-U, Schulz M & M Zabel (2019) Consistent CO₂ release by pyrite oxidation on continental shelves prior to glacial terminations. *Nature Geosciences* 12, 929-934.
- 86 Bertassoli Jr DJ, Sawakuchi AO, Chiessi CM, Schefuß E, Hartmann GA, Häggi C, Cruz FW, Zabel M, Santos RA & FN Pupim (2019) Variations on the relative discharge within the Amazon Basin during the late Holocene coincide with extratropical temperature anomalies. *Geophys. Res. Lett.* 46(15), 9013-9022.
- 85 Häggi C, Schefuß E, Sawakuchi AO, Chiessi CM, Mulitza S, Bertassoli Jr DJ, Hefter J, Mollenhauer G, Zabel M, Baker PA & S Schouten (2019) Modern and late Pleistocene particulate organic carbon transport by the Amazon River: Insights from long-chain alkyl diols. *Geochim. Cosmochim. Acta* 262, 1-19.
- 84 Miller C, Finch J, Hill T, Peterse F, Humphries M, Zabel M & E Schefuß (2019) Late Quaternary climate variability at Mfabi peatland, eastern South Africa. *Climate of the Past* 15, 1153-1170.
- 83* Schürman J, Hahn A & M Zabel (2019) In search of sediment deposits from the Limpopo (Delagoa Bight, southern Africa): Deciphering the catchment provenance of coastal sediments. *Sedimentary Geology*, 380, 94-104.
- 82* Hahn A, Schefuß E, Andó S, Garzanti E, Bouimetarhan I, Cawthra H, Green A, Miller C, Radeff G & M Zabel (2018). The provenance of terrigenous components in marine sediments along the east coast of southern Africa. *Geochemistry Geophysics Geosystems*, 1946-1962.
- 81 Sawakuchi A, Jain M, Mineli T, Nogueira L, Bertassoli Junior DJ, Häggi C, Sawakuchi H, Pupim F, Grohmann CH, Chiessi C, Zabel M, Mulitza S, Mazoca CE & D Cunha (2018) Luminescence of quartz and feldspar fingerprints provenance and correlates with the source area denudation in the Amazon River basin. *Earth Planet. Sci. Lett.* 492, 152-162.
- 80* Hahn A, Vogel H, Andó S, Garzanti E, Kuhn G, Lantusch H, Schürman J, Vogt C & M Zabel (2018) Using Fourier Transform Infrared Spectroscopy to determine mineral phases in sediments. *Sedimentary Geology* 357, 27-35.
- 79 Burdanowitz N, Dupont L, Zabel M & E Schefuß (2018) Holocene hydrologic and vegetation developments in the Orange River catchment (South Africa) and their controls. *The Holocene*, DOI: 10.1177/09596836187714.
- 78 Becker K, Elling F, Schröder J, Lipp J, Goldhammer T, Zabel M, Elvert M, Overmann J & K-U Hinrichs (2018) Isoprenoid quinones resolve the stratification of redox processes in a biogeochemical continuum from the photic zone to deep anoxic sediments of the Black Sea. *Applied and Environmental Microbiology*, 84 (10) e02736-1.
- 77 Wüdsch M, Haberzettl T, Meadows ME, Zabel M, Daut G, Cawthra HC, Kasper T, Kirsten K, Quick L, Frenzel P, Baade J & R Mäusbacher (2018) Holocene environmental change along the southern Cape coast of South Africa – Insights from the Eilandvlei sediment record spanning the last 8.9 kyr. *Global and Planetary Change* 163, 51-66.
- 76 Granger R, Meadows M, Hahn A, Stuut J-B, Herrmann N, Zabel M & E Schefuß (2018) Late Holocene dynamics of sea-surface temperature and terrestrial hydrology in southwestern Africa. *The Holocene* 28(5), 695-705, DOI: 10.1177/0959683617744259.
- 75 Zhang Y, Portillo-Ramos R, Chiessi CM, Mulitza S, Sawakuchi AO, Häggi C, Zabel M, Schefuß E, Crivellari S & G Wefer (2017) Different precipitation patterns across tropical South America during Heinrich and Dansgaard-Oeschger stadials. *Quat. Sci. Rev.* 177, 1-9.
- 74 Voigt I, Cruz APS, Mulitza S, Chiessi CM, Mackensen A, Lippold J, Antz B, Zabel M, Zhang Y, Barbosa CF & A Tisserand (2017) Variability in mid-depth ventilation of the western Atlantic Ocean during the last deglaciation. *Paleoceanography*. 32, doi:10.1002/2017PA003095.
- 73 Grant KM, Rohling EJ, Westerhold T, Zabel M, Heslop D, Konijnendijk T & L Lourens (2017) A 3 million year index for North African humidity/aridity and the implication of potential pan-African Humid periods. *Quat. Sci. Rev.* 171, 100-118.
- 72* Hahn A, Schefuß E, Andó S, Hayley C, Frenzel P, Kugel M, Meschner S, Mollenhauer G & M Zabel (2017) Southern Hemisphere anticyclonic circulation drives oceanic and climatic conditions in late Holocene southernmost Africa. *Climate of the Past* 13(6), 649-665.
- 71 Sun S, Schefuß E, Mulitza S, Chiessi CM, Sawakuchi AO, Zabel M, Baker PA, Hefter J & G Mollenhauer (2017) Origin and processing of terrestrial organic carbon in the Amazon system: lignin phenols in river, shelf and fan sediments. *Biogeosci.* 14, 2495–2512.
- 70 Herrmann N, Boom A, Carr A, Chase B, West A, Zabel M & E Schefuß (2017) Hydrogen isotope fractionation of leaf wax n-alkanes in southern African soils. *Org. Geochem.* 109, 1-13.

- 69 Schmidt F, Koch BP, Goldhammer T, Elvert M, Witt M, Lin Y-S, Wendt J, Zabel M, Heuer VB & K-U Hinrichs (2017) Unraveling signatures of biogeochemical processes and the depositional setting in the molecular composition of pore water DOM across different marine environments. *Geochim. Cosmochim. Acta* 207, 57-80.
- 68 Lin YS, Koch BP, Feseker T, Ziervogel K, Goldhammer T, Schmidt F, Witt M, Kellermann MY, Zabel M, Teske A & K-U Hinrichs (2017) Near-surface Heating of Young Rift Sediment Causes Mass Production and Discharge of Reactive Dissolved Organic Matter. *Sci. Rep.*, DOI: 10.1038/srep44864.
- 67 Bertassoli Jun. DJ, Sawakuchi AO, Sawakuchi HO, Pupim FN, Hartmann GA, McGlue MM, Chiessi CM, Zabel M, Schefuß E, Pereira TS, Santos RA, Faustino SB, Oliveira PE & DC Bicudo (2017) Spatiotemporal Variations of Riverine Discharge Within the Amazon Basin During the Late Holocene Coincide With Extratropical Temperature Anomalies. *Front. Mar. Sci.* 4:44. doi: 10.3389/fmars.2017.00044.
- 66 Zhang Y, Zhang X, Chiessi CM, Mulitza S, Zhang X, Lohmann G, Prange M, Behling H, Zabel M, Govin A, Sawakuchi AO, Cruz FW & G Wefer (2016) Equatorial Pacific forcing of western Amazonian precipitation during Heinrich Stadial 1. *Sci. Rep.* 6 (35866) . doi: 10.1038/srep35866.
- 65 Häggi C, Sawakuchi AO, Chiessi CM, Mulitza S, Mollenhauer G, Sawakuchi HO, Baker PA, Zabel M & E Schefuß (2016) Origin, transport and deposition of leaf-wax biomarkers in the Amazon Basin and the adjacent Atlantic. *Geochim. Cosmochim. Acta* 192, 149-165.
- 64 Herrmann N, Boom A, Carr AS, Chase BM, Granger R, Hahn A, Zabel M & E Schefuß (2016) Sources, transport and deposition of terrestrial organic material: A case study from southwestern Africa. *Quaternary Science Reviews* 149, 215-229.
- 63 Wüdsch M, Haberzettl T, Kirsten KL, Kasper T, Zabel M, Dietze E, Baade J, Daut G, Meschner S, Meadows ME & R Mäusbacher (2016) Sea level and climate change at the southern Cape coast, South Africa, during the past 4.2 kyr. *Paleo* 3 446, 295-307.
- 62* Weiser J, Baumann K-H, Hahn A & M Zabel (2016) Late Holocene paleoceanographic changes off south-western Africa as inferred from coccolithophore assemblages. *Journal of Nannoplankton Research* 36 (2): 161–171.
- 61 Zhang Y, Chiessi CM, Mulitza S, Zabel M, Trindade RIF, Hollanda MHB, Dantas EL, Govin A, Tiedemann R & G Wefer (2015) Origin of increased terrigenous supply to the NE South American continental margin during Heinrich Stadial 1 and the Younger Dryas. *Earth Planet. Sci. Lett.* 432, 493-500.
- 60* Hahn A, Compton JS, Meyer-Jacob C, Kirsten KL, Lucassen F, Pérez Mayo M, Schefuß E & M Zabel (2015) Holocene paleo-climatic record from the South African Namaqualand mudbelt: A source to sink approach. *Quat. Int.* 404, 121-135.
- 59* Goldhammer T, Schwärzle A, Aiello IW & M Zabel (2015) Temporal stability and origin of chemoclines in the deep hypersaline anoxic Urania basin: Stability of Chemoclines in Urania Basin. *Geophysical Research Letters* 42(12), DOI:10.1002/2015GL063758.
- 58 Haberzettl T, Frenzel P, ... & M Zabel (2014) R A I N (Regional Archives for Integrated iNvestigations) – A conceptual research approach. *Zbl. Geol. Paläont.* Teil I, 1, 55–73.
- 57 Bowles MW, Mogollon JM, Kasten S, Zabel M & KU Hinrichs (2014) Global rates of marine sulfate reduction and implications for sub-sea-floor metabolic activities. *Science*, 344(6186). 889-891.
- 56 Govin A, Chiessi CM, Zabel M, Sawakuchi AO, Heslop D, Hörner T, Zhang Y & S Mulitza (2014) Terrigenous input off northern South America driven by changes in Amazonian climate and the North Brazil Current retroflexion during the last 250 ka. *Climate of the Past*, 10(2). 843-862.
- 55* Wagner T, Kallweit W, Talbot HM, Mollenhauer G, Boom A & M Zabel (2014) Microbial biomarkers support organic carbon transport from methane-rich Amazon wetlands to the shelf and deep sea fan during recent and glacial climate conditions. *Organic Geochemistry*, 67. 85-98.
- 54 Wörmer L, Elvert M, Fuchser J, Lipp JS, Buttigieg PL, Zabel M & KU Hinrichs (2014) Ultra-high-resolution paleoenvironmental records via direct laser-based analysis of lipid biomarkers in sediment core samples. *Proceedings of the National Academy of Sciences of the United States of America*, 111(44). 15669-15674.
- 53 Collins JA, Govin A, Mulitza S, Heslop D, Zabel M, Hartmann J, Röhl U & G Wefer, G (2013) Abrupt shifts of the Sahara-Sahel boundary during Heinrich Stadials. *Climate of the Past*, 9. 1181-1191.
- 52 Bloemsma MR, Zabel M, Stuut JB, Tjallingii R, Collins JA & GJ Weltje (2012) Modelling the joint variability of grain size and chemical composition in sediments. *Sedimentary Geology*, 280. 135-148.
- 51 Dong A, Zhai S, Zabel M, Yu Z, Zhang H & F Liu (2012) Heavy metals in Changjiang estuarine and offshore sediments: responding to human activities. *Acta Oceanologica Sinica*, 31(2). 88-101.
- 50 Fischer D, Sahling H, Nöthen K, Bohrmann G, Zabel M & S Kasten (2012) Interaction between hydrocarbon seepage, chemosynthetic communities, and bottom water redox at cold seeps of the Makran accretionary prism: insights from habitat-specific pore water sampling and modeling. *Biogeosciences*, 9(6). 2012-2031.
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- 47* Kallweit W, Mollenhauer G & M Zabel (2012) Multi-proxy reconstruction of terrigenous input and sea-surface temperatures in the eastern Gulf of Guinea over the last ~35 ka. *Marine Geology*, 319-32. 35-46.
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- 42* Goldhammer T, Brunner B, Bernasconi SM, Ferdelman, TG & M Zabel (2011) Phosphate oxygen isotopes: Insights into sedimentary phosphorus cycling from the Benguela upwelling system. *Geochimica et Cosmochimica Acta*, 75(13). 3741-3756.
- 41* Goldhammer T, Max T, Brunner B, Einsiedl F & M Zabel (2011) Marine sediment pore-water profiles of phosphate d18O using a refined micro-extraction. *Limnology and Oceanography-Methods*, 9. 110-120.
- 40 Schubotz F, Lipp JS, Elvert M, Kasten S, Mollar XP, Zabel M, Bohrmann G & KU Hinrichs (2011) Petroleum degradation and associated microbial signatures at the Chapopote asphalt volcano, Southern Gulf of Mexico. *Geochimica et Cosmochimica Acta*, 75(16). 4377-4398.
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- 35 Jaeschke A, Abbas B, Zabel M, Hopmans EC, JS Schouten S & Sinninghe Damsté (2010) Molecular evidence for anaerobic ammonium-oxidizing (anammox) bacteria in continental shelf and slope sediments off northwest Africa. *Limnology and Oceanography*, 55(1). 365-376.
- 34* Küster-Heins K, Steinmetz E, de Lange, GJ & M Zabel (2010) Phosphorus cycling in marine sediments from the continental margin off Namibia. *Marine Geology*, 274(1-4). 95-106.
- 33* Küster-Heins K, de Lange GJ & M Zabel (2010) Benthic phosphorus and iron budgets for three NW African slope sediments: a balance approach. *Biogeosciences*, 7(2). 469-480.
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- 22* Seiter K, Hensen C & M Zabel (2005) Benthic carbon mineralization on a global scale. *Glob. Biogeochem. Cycles*, 19, GB1010, doi:10.1029/2004GB002225
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- 19 Hensen C, Zabel M, Pfeifer K, Schwenk T, Kasten S, Riedinger N, Schulz HD & A Boetius (2003) Control of sulfate pore-water profiles by sedimentary events and the significance of anaerobic oxidation of methane for the burial of sulfur in marine sediments. *Geochim. Cosmochim. Acta*, 67:2631-2647.
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- 17 Licari L, Schumacher S, Wenzhoefer F, Zabel M & A Mackensen (2003) Communities and microhabitats of living benthic foraminifera from the tropical east Atlantic: impact of different productivity regimes.- *J Foram. Res.*, 33:10-31.
- 16 Kasten S, Haese RR, Zabel M, Rühlemann C. & HD Schulz (2001) Barium peaks at glacial terminations in sediments of the equatorial Atlantic Ocean – Relicts of deglacial productivity pulses?- *Chem. Geol.*, 175:635-651.
- 15 Zabel M & HD Schulz (2001) Importance of submarine landslides for non-steady state conditions in pore water systems – lower Zaire (Congo) deep-sea fan.- *Mar. Geol.*, 176:87-99.
- 14 Zabel M, Schneider RR, Wagner T, Adegbe AT, deVries U & S Kolonic (2001) Late Quaternary climate changes in central Africa as inferred from terrigenous input to the Niger Fan.- *Quat. Res.*, 56:207-217.
- 13 Freudenthal T, Wagner T, Wenzhöfer F, Zabel M & G Wefer (2001) Early diagenesis of organic matter from sediments of the eastern subtropical Atlantic: Evidence from stable nitrogen and carbon isotopes. *Geochim. Cosmochim. Acta*, 65:1795-1808.
- 12 Hensen C, Zabel M & HD Schulz (2000) A comparison of benthic nutrient fluxes from deep-sea sediments off Namibia and Argentina. *Deep-Sea Res. II*, 47:2029-2050.
- 11 Zabel M, Bickert T, Dittert L & RR Haese (1999) Significance of the sedimentary Al:Ti ratio as an indicator for variations in the circulation patterns of the equatorial North Atlantic. *Paleoceanography*, 14:789-799.
- 10 Niewöhner C, Hensen C, Kasten S, Zabel M & HD Schulz (1998) Deep sulfate reduction completely mediated by anaerobic methane oxidation in the upwelling area off Namibia. *Geochim. Cosmochim. Acta*, 62/3:455-464.
- 9 Kasten S, Rühlemann C, Haese RR, Zabel M, Mulitza S, Funk J & HD Schulz (1998) Barium peaks at glacial terminations in sediments of the equatorial Atlantic Ocean – relicts of deglacial productivity pulses? - *Mineralogical Magazin*, 62a, V. M. Goldschmidt Conference, Toulouse, 749-750.
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- 4 Meiwirth K, Kruse L, Wachtendorf S, Wienberg M, Zabel M & HD Schulz (1996) Schwermetall-Anreicherungen in Ostsee-Sedimenten (Kieler Bucht) - Frühdiagenese und anthropogener Eintrag.- *Z. dt. geol. Ges.*, 147:137-144.
- 3 Zabel M, Dahmke A & HD Schulz (1995) Ansätze zur Regionalisierung bei sehr geringer Datendichte und inhomogener Datenverteilung.- *Z. dt. geol. Ges.*, 145:392-401.
- 2 Schulz HD, Dahmke A, Schinzel U, Wallmann K & M Zabel (1994) Early diagenetic processes, fluxes and reaction rates in sediments of the South Atlantic.- *Geochim. Cosmochim. Acta*, 58:2041-2060.

- 1 Isenbeck-Schröter M, Kölling M, Schulz HD & M Zabel (1994) Modeling of redox processes during transport of solutes in pore water and groundwater.- XXV Congress of the intern. Assoc. of Hydrogeol., Preprints of Papers, 2/A:183-187, Adelaide, Australia.

b) Books

- Schulz HD & M Zabel (eds) (2006) *Marine Geochemistry*.- 2nd Ed., Springer Verlag, Heidelberg, NY, 574 pp.
- Schulz HD & M Zabel (eds) (2000) *Marine Geochemistry*.- 1st Ed., Springer Verlag, Heidelberg, NY, 455 pp.

c) Peer-reviewed book chapters (11)

- Menapace W, Kopf A, Zabel M & D de Beer (2017) Mud volcanism as dynamic sedimentary phenomenon to host marine ecosystems. In: Kallmeyer J (ed) *Life under extreme environments*. 53-84.
- Hensen C, Zabel M & HN Schulz (2006) Early diagenesis at the benthic boundary layer: Oxygen, nitrogen, and phosphorus in marine sediments.- in: Schulz HD, Zabel M (eds): *Marine Geochemistry*, 2nd Ed., Springer, Heidelberg, NY, 207-240.
- Zabel M & C Hensen (2006) Quantification and regionalization of benthic reflux.- in: Schulz HD, Zabel M (eds): *Marine Geochemistry*, 2nd Ed., Springer, Heidelberg, NY, 429-456.
- Zabel M, Wagner T & P DeMenocal (2004) Terrigenous signals in sediments of the low latitude Atlantic – implications to environmental variations during the late Quaternary: Part II: The lithogenic matter.- In: Wefer G, Mulitza S & V Ratmeyer (eds) *The South Atlantic in the Late Quaternary: Reconstruction of Mass Budget and Current Systems*, Springer, Berlin, Heidelberg, New York; 323-345 pp.
- Wagner T, Zabel M, Dupont L, Freudenthal T, Holtvoeth J & C Schubert (2004) Terrigenous signals in sediments of the low latitude Atlantic – implications to environmental variations during the late Quaternary: Part I: The organic carbon.- In: Wefer G, Mulitza S & V Ratmeyer (eds) *The South Atlantic in the Late Quaternary: Reconstruction of Mass Budget and Current Systems*, Springer, Berlin, Heidelberg, New York, 295-322 pp.
- Kasten S, Zabel M, Heuer V & C Hensen (2004): Nonsteady-state diagenesis and its documentation and preservation in marine sediment/pore water systems.- In: Wefer G, Mulitza S & V Ratmeyer (eds) *The South Atlantic in the Late Quaternary: Reconstruction of Mass Budget and Current Systems*, Springer, Berlin, Heidelberg, New York, 431-459 pp.
- Kukowski N, Schlüter M, Haese RR, Hensen C, Hinkelmann R, Sibuet M & M Zabel (2002) The importance of fluid flow in ocean margin systems.- In: Wefer G, Billett D, Hebbeln D, Jørgensen B, Schlüter M & Tj Van Weering (eds) *Ocean Margin Systems*, Springer Verlag, Berlin, 295-306 pp.
- Zabel M & C Hensen (2002) The importance of mineralisation processes in surface sediments at continental margins.- In: Wefer G, Billett D, Hebbeln D, Jørgensen B, Schlüter M & Tj Van Weering (eds) *Ocean Margin Systems*, Springer Verlag, Berlin, 253-267 pp.
- Hensen C & M Zabel (2000) Early Diagenesis at the Benthic Boundary Layer: Oxygen and Nitrate in Marine Sediments.- In: Schulz HD & M Zabel (eds) *Marine Geochemistry*, Springer, Heidelberg, NY, 209-231.
- Zabel M, Hensen C & M Schlüter (2000) Back to the ocean cycles: Benthic fluxes and their distribution patterns.- In: Schulz HD & M Zabel (eds) *Marine Geochemistry*, Springer, Heidelberg, NY, 373-395.
- Ginge FX, Zabel M, Kasten S, Bonn WJ & CC Nürnberg (1999) Biogenic barium as a proxy für paleoproductivity: methods and limitations of application.- In: Fischer G & G Wefer (eds.) *Use of proxies in paleoceanography – Examples from the South Atlantic*, Springer, Heidelberg, NY, 345-364.

d) Reports

- Zabel M et al. (2020) The Benguela System under climate change Effects of variability in physical forcing on carbon and oxygen budgets. Cruise No. M157, 04.08.2019 – 16.09.2019, Mindelo (Cape Verde) – Walvis Bay (Namibia). METEOR-Berichte.
- Zabel M (2016) Climate Archives in Coastal Waters of Southern Africa - Cruise No. M123 – Febr. 03 – Febr. 27, 2016 – Walvis Bay (Namibia) – Cape Town (Rep. South Africa). METEOR-Berichte.
- Visbeck M, Ekau W, Zabel M (2014) Training and capacity building cruise - Cruise No. MSM19/1 - September 22 - October 21, 2011 - Walvis Bay (Namibia) - Walvis Bay (Namibia). in MARIA S. MERIAN-Berichte; MSM19/1; 1-50; MARIA S. MERIAN-Berichte.
- Zabel M et al. (2012) Biogeochemistry and methane hydrates of the Black Sea; Oceanography of the Mediterranean; Shelf sedimentation and cold water carbonates - Cruise No. M84/1; METEOR-Berichte; M84/1; 1-38.
- Zabel M, Boetius A, Emeis K-C, Ferdelman TG & V Spieß (2012) PROSA Process Studies in the Eastern South Atlantic – Cruise No. M76 – April 12 – August 24, 2008 – Cape Town (South Africa) – Walvis Bay (Namibia); METEOR-Berichte; M76; 1-180.

Zabel M, Schneider RR & V Brüchert (eds) (2005) The Benguela Upwelling Area – Eastern South Atlantic 2003.- Cruise No. 57, 20 January – 13 April 2003, METEOR-Berichte, Universität Hamburg.

Zabel M and cruise participants (2003) Report and Preliminary Results of METEOR Cruise M57/2, Walvis Bay – Walvis Bay, 10.02. – 12.03.2003. Bremen 2003. Berichte, Fachbereich Geowissenschaften, Universität Bremen, No. 217, pp 136, Bremen, 2003.

e) Cruise reports

25 chapters in official cruise reports (1991-2020)

f) Popular scientific works

Schulz HD, Hamer K, Schröter J & M Zabel (2002) Groundwater – Precious Wet in the Hiding.- An interactive CD for education and public relation (in German)

Oceanographic Cruises

2019	Chief scientist on RV METEOR cruise M157
2018	Leader of the 'Marine Geochemistry - Group' on TSF SONNE cruise SO261
2016	Chief scientist on RV METEOR cruise M123
2011	Chief scientist on RV M.S.MERIAN 19/1c
2011	Chief scientist on RV METEOR cruise M84/1
2008	Chief scientist on RV METEOR cruise M76/1
2003	Chief scientist on RV METEOR cruise M57/2
1993-2006	Coordination and direction of the 'Marine Geochemistry - Group' during 10 cruises with the German research vessel RV METEOR (M23/1-3, 29/1+2, 34/4, 37/1, 41/1, 65/1, 67/2b)
1991/1992	Participation on two cruises to the South Atlantic (M16/2, M20/2)

Contracts and Grants (Total volume 5.708.000 €)

Cooperative projects that I have co-coordinated in a position of responsibility only are not included.

Recent Projects

2022 – 2025 DFG, Excellence Cluster – Research Unit Reactor Theme 2 " <i>Deep Biosphere and Element Cycling in Sediments</i> "	(175.000 €)
2021 – 2024 BMBF, D.A.M. Mission " <i>AIMS3 - Alternate scenarios, Innovative technologies, and Monitoring approaches for Sub-Seabed Storage of carbon dioxide</i> "; sub-project A2-4	(26.000 €)
2019 – 2023 DFG, Excellence Cluster – Research Unit Reactor Theme 2 " <i>Deep Biosphere and Element Cycling in Sediments</i> "	(175.000 €)
2019 – 2022 BMBF, Sub-Project 2 within the scope of the Cooperative Research Project " <i>The Benguela Upwelling System under climate change - EVAR</i> "	(404.000 €)

Completed Projects

2018 – 2021, BMBF, Sub-Project 3 within the scope of the Cooperative Research Project " - <i>TRACES</i> " (Coordinator)	(400.000 €)
2012 – 2018, DFG, Sub-Project GB1-Zabel (<i>Particle flux, carbon turnover and nutrient regeneration</i>) within the scope of the DFG Cluster of Excellence EXC 309/FZT 15 The Ocean in the Earth System	(431.000 €)
2012 – 2017, DFG, Sub-Project CCP3 (<i>The role of the deep sub-seafloor biosphere for the carbon cycle and climate</i>) within the scope of the DFG Cluster of Excellence EXC 309/FZT 15 The Ocean in the Earth System; Co-Applicants: KU Hinrichs & M Schulz	(243.000 €)
2016 – 2018, BMBF, Sub-Projects 4 and 5 (03G0862A) within the scope of the Cooperative Research Project " <i>Regional Archives for Integrated Investigations - RAIN II</i> " (Coordinator)	(238.000 €)

- 2015 – 2016, BMBF, *MA-RAiN* (03F0731A) Ausbildungs- und Forschungsfahrt im Zusammenhang mit dem SPACES-Verbundprojekt *RAiN* (72.000 €)
- 2014, BMBF, Increase Request for *RAiN* (187.000 €)
- 2013 – 2016, BMBF, Sub-Projects 4 and 5 (03G0840A) within the scope of the Cooperative Research Project "*Regional Archives for Integrated Investigations - RAiN*" (Coordinator); Co-Applicant: D Hebbel (432.000 €)
- 2009 – 2013, DFG, Sub-Project GB2-Zabel (*N/P/Fe-biogeochemistry in benthic boundary layer and surface sediments*) within the scope of the DFG Research Center "*Ocean Margins*" (RCOM); (236.000 €)
- 2006 – 2007, DFG/RCOM Unforeseen Projects (*Signalveränderung suspendierten Materials beim Durchsinken der Wassersäule*) (77.000 €)
- 2008 – 2009, DFG (ZA 199/3-1), *Koordinatorantrag M76: Prozessstudien im östlichen Süd-Atlantik* (75.000 €)
- 2007 – 2011, DFG, Sub-Project F2 (*Geofuel inventory and utilization*) within the scope of the Cluster of Excellence "*The Ocean in the Earth System*"; Co-Applicant: F Wenzhöfer (345.000 €)
- 2007 – 2009, DAAD, PPP Norwegen (*Quantitative Modeling of Sedimentation of Organic Carbon Along Continental Margins*) (10.000 €)
- 2005 – 2009, DFG, Sub-Project E3 (*Quantification of emissions of fluids and gas at cold seeps*) within the scope of the DFG Research Center "*Ocean Margins*" (RCOM); Co-Applicants: F Wenzhöfer & H Sahling (290.000 €)
- 2005 – 2009, DFG, Sub-Project B2 (*Simulation of biogeochemical processes in the marine subsurface: understanding carbon-flow and identification of process-specific biosignatures*) within the scope of the DFG Research Center "*Ocean Margins*" (RCOM); Co-Applicants: KU Hinrichs & T Ferdelman (360.000 €)
- 2005 – 2007, DFG (ZA 199/2-1), "*Balancing of the benthic carbon cycle – a scientific synthesis*" (127.000 €)
- 2005 – 2007, DFG, Sub-Projects 9 (*Phosphor-cycle and phosphorite formation in marine sediments*) within the scope of the International College for Graduates "*EUROPROX*" (50.000 €)
- 2004 – 2005, BMBF, "*Geochemical Studies on Sediments of the Chinese Seas*" (5.000 €)
- 2002 – 2003, DFG, "*Quantification and Characterization of Benthic Flux Rates Based on Their Regional and Global Patterns – Implication for the Ocean Budgets*"; Co-Applicant: C Hensen (33.000 €)
- 2001 – 2005, DFG, Sub-Project B2 (*Origins, Reactivity, and Transport of Particulate Organic Material in the Benthic Boundary Layer in High Productive Systems*) within the scope of the DFG Research Center "*Ocean Margins*" (RCOM); Co-Applicants: T Ferdelman (614.000 €)
- 2001 – 2004, DFG, Sub-Projects 9 (*Non-steady state sedimentation, its documentation and preservation in the solid phase*) and 10 (*Modeling of steady and non-steady state diagenetic processes*) within the scope of the European College for Graduates "*Proxies in Earth History*"; Co-Applicants: HD Schulz & S Kasten (167.000 €)
- 2002 – 2003, BMBF, Sub-Project D (*Geochemical Gradients and Microbial Activity*) within the scope of the integrated project "*Gas Hydrates in Hemipelagic Sediments – A Pilot Study in the Lower Congo Basin*"; Co-Applicant: S Kasten (123.000 €)
- 2000 – 2002, DFG, "*Quantification and Characterization of Benthic Flux Rates Based on Their Regional and Global Patterns – Implication for the Ocean Budgets*" (66.000 €)
- 2000, DFG, application for a RV METEOR expedition: "*Structure and Evolution of the Southwest African Continental Margin – A Combined Seismic and Geological-Geochemical Study off the Congo Mouth and in the Field of ODP Leg 175*"; Co-Applicants: V Spieß, S Kasten & RSchneider (58.000 €)
- 1999 – 2000, BMBF, Synthesis of the BIGSET-Project (21.000 €)
- 1998, BMBF, Supplement for RV SONNE Cruise SO129 in BIGSET (6.000 €)
- 1997 – 1999, EU, within the scope of the EU ENRICH Program "*Atlantic Data Base for Exchange Processes at the Deep Sea Floor*", application together with 17 international participants, official Contractor: K. Lochte (IFM-Geomar, Kiel - Germany) (3.000 €)
- 1997, BMBF, Supplement for RV SONNE Cruise SO118 in BIGSET (13.000 €)

1996 – 1999, BMBF, Sub-Project 6 (*Interactions Between Seasonality of Benthic Transformation Rates, Particle Flux and Trace Element Distribution in Deep-Sea Sediments*) within the scope of the integrated project BIGSET of the "BMBF Deep-Sea Research Program"; Co-Applicant: HD Schulz (120.000 €)

1995 – 1997, DFG / BMBF, "Fluxes Through the Sediment-Water Interface – Global Distribution Patterns and Their Importance on the Ocean Budget" within the scope of JGOFS III; Co-Applicant: HD Schulz (126.000 €)

Awards

October 1999 Hermann Credner Fellowship for the support of the upcoming scientific generation.
Awarded by the German Geological Society (DGG).

Memberships in Associations and Professional Societies

2023 – present Acting head of the Science Communication Group

2015 – present Head of the scientifically autonomous MARUM group "Sediment Geochemistry"
(<http://www.marum.de/en/about-us/Sediment-Geochemistry.html>)

2012 – 2018 Applicant and member of the executive committee of the DFG Cluster of Excellence The Ocean in the Earth System (EXC 309/FZT15)

2004 – 2012 Member of the executive committee of DFG-Research Center Ocean Margins (RCOM)

2001 – 2012 Member and applicant of DFG-Research Center Ocean Margins (RCOM) at Bremen University

2002 – 2010 Member and applicant of the International College for Graduates "Proxies in Earth History" at Bremen University, Utrecht University, and Free University of Amsterdam

1997 – present Member of the *American Geophysical Union* (AGU)

1997 – 2014 Member of the *Deutsche Geologische Gesellschaft* / *German Geological Society* (DGG)

1996 – 1999 Associated scientist in the College for Graduates "Compound Fluxes in Marine Geosystems" at University of Bremen

1995 – 2001 Member of the DFG-Special Research Project 261 "The South Atlantic in the Late Quaternary: Reconstruction of material budget and current systems"

1991 – 1999 Member and later on associated scientist of the College for Graduates "Compound Fluxes in Marine Geosystems" at University of Bremen

Activities in Associations and Committees

2020 Chairman at AGU Oceanscience Meeting 2020 San Diego; Session: Life, material transport and element cycling in the hadal realm

2018 – present Speaker of Research Area Geosphere-Biosphere Interactions at MARUM

2018 – 2021 Coordinator of the BMBF Cooperative Research Project *TRACES*

2014 Chairman at GV/DGG Frankfurt a.M.; Session A17: Marine and lacustrine sediments as environmental archives

2013 – 2018 Coordinator of the BMBF Cooperative Research Projects *RAiN I+III*

2012 – 2019 Coordinator of Research Area GB (*Geosphere-Biosphere Interactions*) within the DFG Cluster of Excellence EXC 309/FZT 15 The Ocean in the Earth System

2006 – 2009 Coordinator of RV Meteor expedition M76 (6 legs)

2004 – 2012 Coordinator of Research Area B (*Biogeochemical Processes*) within the DFG Res. Center Ocean Margins

2003 – 2013 Alumni representative of the Department of Geosciences at Bremen University

2002 – 2005 Coordinator of RV Meteor expedition M57 (3 legs)

2002 – 2015 Member of the Editorial Board of the journal *Geo-Marine Letters*

2002 Chairman at AGU Oceanscience Meeting 2002 Hawaii; Session: Quantification and Regionalization of benthic flux rates: Implication for ocean budgets

- 2001 Chairman at GV/DGG Kiel; Session: Carbon flux along continental margins
- 2002 – 2010 Co-Applicant and membership of the International Graduate College “*Proxies in Earth History*”
- 1999 – present Reviewer (~ 15 reviews per annum) for Marine Geology, Geo-Marine Letters, Chemical Geology, Earth and Planetary Science Letters, Paleo 3, Deep-Sea Research, Organic Geochemistry, Nature, Limnology and Oceanography, Geochemica et Cosmochemica Acta, DFG, BMBF, DRNF, Volkswagenstiftung
- 1995 Organizer of the IV. International Workshops on Early Diagenesis at Bremen University
- 1994 – 2001 Membership of the SFB 261, Bremen University
- 1994 – 2007 Co-Organizer of the “*Summer-University, Hydrogeology – Environmental Geology*” at the University of Bremen
- 1993 – present Frequently speaker on international meetings and conferences (e.g. AGU, EGU)
- 1991 – 2000 Membership of the Graduate College “*Fluxes in Marine Geo-Systems*”

Vocational Training

- 1998 – 2001 Participation in four workshop seminars for educational and academic staff development in higher education, Organizer: *Interdisciplinary Center for Research and Development in Higher Education – Bielefeld* (IZHD)
- Themes: Teaching and Learning at the University – Reflection and Supports for Problems (Basic Course); Variety of Teaching Methods; The Reflectance of own Competences by a Teaching Portfolio; Planning and Realization of Courses and Lectures
- 1991 – 1993 Participation in seven courses of the *Summer-University, Hydrogeology – Environmental Geology*, Bremen

Teaching Experience

Undergraduate Students (only theses with primary advisory are listed)

31 Diploma Theses - Geological Mappings (3 months regularly, 1995 - 2004)

According to an agreement and in cooperation with the *Niedersächsisches Landesamt für Bodenforschung* (NLfB), all 33 listed geological mappings refer to the new geological survey of Niedersachsen (Germany) 1:50:000. All examination papers are unpublished.

1995: C. Niewöhner, E. Steinmetz; 1996: O. De Santis, T. Freudenthal, M. Gorke, G. Grahl, B. Kottke, K. Pfeifer, W. Thies, S. Wunsch; 1997: B. Christensen, H. Hecht, C. Krömker, G. Massmann, N. Nowald, M. Raulfs, D. Schmidt, T. Wenzel; 1998: U. De Vries, U. Mayn, B. Panteleit; 2001: S. Rathmann, I. Alexander; 2002: P. Koelle, G. Wegener, J. Klinger; 2003: C. Seiter, M. Heldt; 2004: A. Gassner, R. Schäfer, J. Langer

11 Diploma Theses (Lab work 6 months regularly, 1996 - 2006)

The questions behind these 8 laboratory works were connected directly with own centers of research and with actual research projects. All examination papers are unpublished.

1996: L. Dittert, K. Zedel; 1997: E. Steinmetz; 1999: U. De Vries, B. Panteleit; 2001: I. Alexander; 2002: P. Koelle; 2003: S. Feil, C. Kuhring; 2004: B. Rajes; 2006: A. Gaßner

20 Geochemicaly and/or Paleoceanographicaly Oriented Bachelor Theses (6 weeks regularly)

2005: S. Wiesmeier; 2008: T. Broder, S. Sauer, H. Kampe; 2009: M. Przybilla; 2011: M. Koslick; 2012: J. Meierdierks, J. Ahrens, M. Belke-Brea, A. Janßen, K. Kirsch; 2013: J. Limbrock; 2014: N. Stange; 2015: S. Woltmann, N. Lebrecht-Zollgreve, O. Helten; 2016: S.T. Langlotz; 2017: V. Niebuhr; 2018: J. Backes; 2022: A. Witzleb

13 Geochemicaly and Paleoceanographicaly Oriented Diploma/Master Theses (6 months / 22 weeks regularly)

Questions and hypotheses behind the laboratory works were/are connected directly with own center interests and were/are closely linked to research projects. All examination papers are unpublished.

2011: W. Greve, 2012: K. Gaida, 2014: J. Weiser, J. Meierdierks; 2015: M. Kugel, 2016: J. Maciejek, 2017: N. Lübben, M. Baum; 2018: J. Schüüman, E. Okuma; 2019: J. Lenz; 2020: S. Lehnert; 2021: M. Baum

Graduate / PhD Students (advisor; *supervisor)

- C. Hensen (Dr. rer. nat. 1996): Frühdiagenetische Prozesse und Quantifizierung benthischer Stoff-Flüsse in Oberflächensedimenten des Südatlantiks.
- H. Landenberger (Dr. rer. nat. 1997): CoTReM, ein Multi-Komponenten Transport- und Reaktions-Modell.
- M. Adler (Dr. rer. nat. 2000): Modeling of one-dimensional transport in porous media with respect to simultaneous geochemical reactions in CoTReM.
- * L. Dittert (Dr. rer. nat. 2000): Trace elements in pore water and solid phase of marine surface sediments: Early diagenesis, distribution and signal conservation.
- Heuer, V. (Dr. rer. nat. 2002): Spurenelemente in Sedimenten des Südatlantik – Primärer Eintrag und frühdiagenetische Überprägung.
- * Seiter, K. (Dr. rer. nat. 2004): Regionalisierung und Quantifizierung benthischer Mineralisierungsprozesse.
- * F. Aspetsberger (Dr. rer. nat. 2005): Benthic carbon turnover in continental slope and deep-sea sediments: importance of organic matter quality at different time scales.
- * M. Inthorn (Dr. rer. nat. 2005): Lateral particle transport in nepheloid layers – a key factor for organic matter distribution and quality in the Benguela high-productivity area.
- A. Ahke (Dr. rer. nat. 2006): Composition of molecular organic matter pools, pigments and proteins, in Benguela upwelling and Arctic sediments
- * K. Küster-Heins (Dr. rer. nat. 2009): Geochemical conditions in continental margin surface sediments: implications for distribution and cycling of phosphorus
- * T. Goldhammer (Dr. rer. nat. 2009): Isotope insights into the phosphorus cycle of marine sediments
- * W. Kallweit (Dr. rer. nat. 2011): Terrigenous climate signals in deep sea sediments: Insights from the inorganic and organic geochemistry
- N. Herrmann (Dr. rer. nat. 2017) Holocene climate variability and its feedbacks to hydrology and vegetation dynamics in South Africa: Insights from compound-specific stable carbon ($\delta^{13}\text{C}$) and hydrogen (δD) isotopes
- * M. Kossack (in Bearbeitung)
- * R. van Kaam (in Bearbeitung)