



**Final Symposium:  
Research Group on  
'BioGeoChemistry of Tidal Flats'  
May 19-20, 2009**



**Poster presentations**

- 1 T. Badewien<sup>5</sup>, A. Bartholomae<sup>6</sup>, R. Reuter<sup>5</sup> Measurements of SPM (Suspended Particulate Matter) in the Wadden Sea
- 2 K. Lettmann<sup>1</sup>, J.-O. Wolff<sup>1</sup> Impact of wind and waves on suspended particulate matter fluxes in the East Frisian Wadden Sea (southern North Sea)
- 3 U. Gräwe<sup>1</sup>, K. Lettmann<sup>1</sup>, J.-O. Wolff<sup>1</sup> Suspended particulate matter dynamics in a single particle framework
- 4 A. Lübben<sup>5</sup> (& OceanWaveS GmbH, Lüneburg), S. Koch<sup>1</sup>, T. Badewien<sup>1</sup>, O. Dellwig<sup>2</sup>, R. Reuter<sup>5</sup> Flux of yellow substance in German tidal coastal waters
- 5 D. Voß<sup>a</sup>, B. Fiedler<sup>b</sup>, R. Heuermann<sup>c</sup>, A. Kötzinger<sup>b</sup>, K. Munderloh<sup>c</sup>, O. Zielinski<sup>a</sup> (<sup>a</sup> IMARE/HS Bremerhaven, <sup>b</sup> IFM-GEOMAR, <sup>c</sup> TriOS GmbH) Computation of nitrate concentrations in coastal waters using an in-situ ultraviolet spectrophotometer
- 6 C. Wu<sup>3</sup>, D. de Beer<sup>3</sup> Transport processes in Janssand
- 7 M. Beck<sup>1</sup>, W. Moore (Univ. South Carolina, USA & HWK fellow), M. Grunwald<sup>1,4</sup>, H.-J. Brumsack<sup>1</sup> Pore water discharge controls nutrient cycling in tidal flat areas
- 8 J. Köster<sup>1</sup>, T. Riedel<sup>1</sup>, H. Freund<sup>1</sup>, H.-J. Brumsack<sup>1</sup>, J. Rulkötter<sup>1</sup> Sediment and pore water geochemistry of a subterranean estuary (Wadden Sea, Northern Germany)
- 9 H. Gao<sup>3</sup>, F. Schreiber<sup>3</sup>, G. Collins, M. M Jensen, J.E. Kostka, G. Lavik<sup>3</sup>, D. de Beer<sup>3</sup>, M.M. Kuypers<sup>3</sup> Aerobic denitrification in intertidal permeable Wadden Sea sediments
- 10 T.J. Shaw, J. Ferry, J. Burns (all Univ. of South Carolina, USA) Elucidation of degradation pathways at oxic interfaces using combinatorial experimental designs
- 11 A. Johannsen<sup>4</sup>, K.-C. Emeis (IfBM, University of Hamburg) Potential denitrification rates in German Wadden Sea sediments
- 12 J. Holstein<sup>1</sup>, K. Wirtz<sup>4</sup> Sensitivity analysis of nitrogen and carbon cycling in marine sediments
- 13 K. Lettmann<sup>1</sup>, B.B. Jørgensen<sup>3</sup>, A. Khalili<sup>3</sup> A mathematical model for estimating the reactivity of marine organic matter via measured oxidant consumption rates
- 14 G. Liebezeit<sup>1</sup>, M.E. Böttcher<sup>2</sup>, P.-L. Gehlken, G. Gerdes, L. Giani (Univ. Oldenburg), A. Heinze, J. Mederer, B. Schnetger<sup>1</sup>, M. Segl (Univ. Bremen) Methane-derived authigenic carbonates in modern intertidal surface sediments.
- 15 A.M. Al-Raei<sup>3</sup>, M.E. Böttcher<sup>2</sup> Seasonal and spatial dynamics of sulfide production and pore water gradients in intertidal surface sands of the southern North Sea
- 16 A.M. Al-Raei<sup>3</sup>, M.E. Böttcher, D. de Beer<sup>3</sup>, T. Ferdelman<sup>3</sup> In-situ microsensor measurements of pore water sulfate gradients at different salinities
- 17 A.M. Al-Raei<sup>3</sup>, K. Bosselmann, M.E. Böttcher<sup>2</sup>, B. Hespenheide<sup>3</sup>, F. Tauber<sup>2</sup> Microbial sulfate reduction in temperate intertidal surface sediments: Controls by organic matter contents and temperature
- 18 A.M. Al-Raei<sup>3</sup>, M.E. Böttcher<sup>2</sup>, M. Segl (Univ. Bremen), V. Volkenborn Seasonal impact of lugworms (*Arenicola marina*) on biogeochemical processes and carbon isotope geochemistry of intertidal surface sediments: Results from an in-situ experiment
- 19 M.E. Böttcher<sup>2</sup>, A.M. Al-Raei<sup>3</sup>, V. Heuer, K.-U. Hinrichs, M. Segl (all Univ. Bremen), Y. Hilker<sup>1</sup>, B. Engelen<sup>1</sup> Methane and organic matter as sources for excess carbon dioxide in intertidal surface sands of the North Sea: Biogeochemical and stable isotope evidence
- 20 M.E. Böttcher<sup>2</sup>, A. Lang Biogeochemistry of Mn-Fe-S-C in a winter intertidal surface mud: Results of incubation experiments
- 21 F. Ebersbach<sup>3</sup>, A.M. Al-Raei<sup>3</sup>, M. Segl, H.-J. Brumsack<sup>1</sup>, M.E. Böttcher<sup>2</sup> Oxidation of iron sulfides in intertidal surface sediments: Experimental and field evidence.
- 22 K. Bischof<sup>3</sup>, M. Mußmann<sup>3</sup>, B. Engelen<sup>1</sup>, H. Cypionka<sup>1</sup>, R. Amann<sup>3</sup> The microbial diversity in East Frisian tidal flat sediments and its contribution to the cycling of methane and sulfate
- 23 A. Gittel (Univ. Aarhus, DK), S. Reischke<sup>1</sup>, H. Cypionka<sup>1</sup>, M. Könneke<sup>1</sup> Abundant and active sulfate reducers in the bioreactor Janssand
- 24 K. Zerjatke<sup>3</sup>, S. Lenk<sup>3</sup>, N. Musat<sup>3</sup>, R. Amann<sup>3</sup>, M. Mußmann<sup>3</sup> MAR-FISH on Janssand sediments
- 25 H. Sass<sup>1</sup> (& Cardiff University), H. Rütters<sup>1</sup> The influence of temperature on microbial communities in intertidal sediments
- 26 J. Graue<sup>1</sup>, S. Kleindienst<sup>1</sup>, B. Engelen<sup>1</sup>, H. Cypionka<sup>1</sup> Combination of microcalorimetry and ribosome-based stable-isotope probing to identify fermentative microorganisms in anoxic tidal-flat sediments
- 27 D. Ziehe<sup>1</sup>, G. Liebezeit<sup>1</sup> Amino acid racemization of intertidal flat sediments in the backbarrier area of Spiekeroog Island

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