

Markus Huettel

Professor of Oceanography

Florida State University, Department of Earth, Ocean and Atmospheric Science
 117 N Woodward Av., 0515 OSB, Tallahassee, Florida 32306-4320, USA
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Education

Ph.D., Biology, University of Kiel, 1988. Summa Cum Laude. Title of dissertation: On the impact of macrofauna on the nutrient profiles in Wadden Sea sediments. Supervisors: Prof. Wolfram Noodt, Prof. Karsten Reise. Published as Report of the Institute of Marine Research in Kiel, 182: 1-203, 1988

M.S., Biology, University of Kiel, 1984. Summa Cum Laude. Title of thesis: On the ecology of intertidal flat scavengers: Investigations of *Carcinus maenas* and *Anaitides maculata*. Supervisors: Prof. Wolfram Noodt, Prof. Karsten Reise.

Professional Experience

2003 – present	Professor of Oceanography, Florida State University, Tallahassee Courtesy Professor, Geophysical Fluid Dynamics Institute, Florida State University, Tallahassee
2000 – 2002	Research Group Leader, Max-Planck-Institute for Marine Microbiology
1998 – 1999	Research Scientist, Max-Planck-Institute for Marine Microbiology
1997	Visiting Scientist, University of Hawaii, research group Dr. F. Sansone
1992 – 1996	Research Scientist, Max-Planck-Institute for Marine Microbiology
1991	Lecturer, Department of Biology, University of Kiel
1989 – 1990	Postdoctoral Fellow, University of South Florida
1988	Lecturer, Department of Biology, University of Kiel

Funded Research

2017 – 2018	FIO Shiptime Grant (PI)
2016 – 2018	A Systems Approach To Improve Predictions Of Biodegradation And Ecosystem Recovery In Coastal Marine Sediments Impacted By Oil Spills. Gulf of Mexico Alliance. (231611-00). (PI)
2016 – 2017	FIO Shiptime Grant (PI)
2015 – 2016	“EIEG: Thermal Imaging for Environmental Research at the Geophysical Fluid Dynamics Institute. (Co-PI)
2014 – 2015	“EIEG: Oceanographic sampling system for the R/V Apalachee”, FSU EIEG grant (Co-PI)

- 2014 – 2017 “Collaborative Research: Robust optode-based eddy correlation systems for oxygen flux measurements in aquatic environments”, NSF (PI)
- 2013 – 2014 “EIEG: Instrument Designed to Concentrate Multiple Liquid Samples for Environmental Research on the Gulf Coast”, FSU EIEG grant (PI)
- 2013 – 2014 “Generating preliminary data for CDOM eddy instrument NSF proposal”, FSU planning grant (PI)
- 2012 – 2013 “Deepwater Horizon crude oil degradation in sandy Gulf Coast sediments”. PRESENS instrument award (PI)
- 2012 – 2013 “Custom mBRAUN Inert Gas Glovebox System and Inverted Microscope”. Program Enhancement Grant (FSURF) (CO-PI).
- 2011 – 2014 “Deep-C: Deepsea to Coast Connectivity in the Eastern Gulf of Mexico.” GRI RFP-I, (Co-PI)
- 2011 – 2011 “Expanding contaminated sediment sampling in gulf coast beaches” GRI RFP-III, (PI)
- 2011 – 2013 “How does river flow variability affect the spatial and temporal distribution of phytoplankton in Apalachicola Bay, Florida?”, NOAA, (PI)
- 2010 – 2013 "Collaborative Research: Eddy Correlation and Chamber Measurements of Benthic Oxygen Fluxes in Permeable Sediments," NSF (PI)
- 2010 – 2012 “Penetration, accumulation and degradation of BP DWH oil in Florida sandy beaches”, FIO (PI)
- 2010 – 2011 "RAPID: MRI: Acquisition of an oil extraction system and gas chromatograph with mass spectrometer for the extraction and analysis of DWH crude oil in Gulf sands." NSF (PI), \$100,850, FSU
- 2010 – 2011 "RAPID: Rates and mechanisms controlling the microbial degradation of crude oil from the MC252 spill in Gulf of Mexico beach sands," NSF, (PI)
- 2010 – 2010 “Do Red Grouper Engineered Habitat Pits Concentrate Crude Oil Pollutants?”, NGI (Co-Pi).
- 2010– 2010 Microbial Analyses of Sandy Sediments affected by the Deepwater Horizon oil spill, NGI (Co-PI)
- 2009 – 2011 “Eddy Correlation - Studies of Flow and Light driven dynamics of Benthic Oxygen Exchange”, NSF Grant, 2 year extension (Co-Pi)
- 2008 – 2012 “Transport of gas and solutes in permeable estuarine sediments”, ONR, (PI).
- 2008 – 2012 “Funding request for an instrument system permitting detection, quantification and analysis of free gas in estuarine and coastal sand sediment”, ONR, DURIP (PI).
- 2007 – 2010 “Quantifying Dissolved Organic Matter Degradation In Filtering Shelf Sands” NSF organic matter (PI).
- 2007 – 2008 “Funding request for the purchase of a small Multiple Sediment Corer for the department of Oceanography”, FSURF Equipment grant (PI).
- 2006 – 2008 “Benthic Photosynthesis in the Northern Gulf of Mexico”, NOAA-NGI (Co-PI)
- 2006 – 2007 “Degradation of algal bloom dissolved organic carbon in the Northeast Gulf of Mexico coastal zone” FSU planning grant (PI).
- 2005 – 2008 “Eddy Correlation - Further Development and Studies of Flow and Light driven dynamics of Benthic Oxygen Exchange”, NSF Grant (Co-Pi).
- 2005 – 2007 “Decomposition of organic matter in permeable Apalachicola Bay sand sediments”. Program Enhancement Grant (FSURF) (PI).

- 2005 – 2006 “Organic carbon/Nitrogen Analyser for Environmental Samples” FSURF Equipment grant (CoPi).
- 2004 – 2007 “Biocatalytical Filtration and Carbon Cycling in Permeable Shelf Sediments”, NSF Grant (PI).
- 2003 – 2004 “Effect of plankton blooms on biocatalytical filtering capacity of permeable coastal sediments on the Northeastern Gulf of Mexico”, FSU planning grant (PI).
- 2002 – 2005 “Coastal sands as biocatalytic filters”, funded by EU (PI).

Research Expeditions

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|------------------------|---|
| 6/8/2013- 6/9/2013 | Northeastern Gulf of Mexico within the project “DeepC” |
| 10/31/2005- 11/1/2002 | Southern Baltic, Bay of Gdansk. European Union Project “COSA”, 9 visits of North Sea and Baltic coastal field sites. |
| 1/6/2002 - 2/1/2002 | Great Barrier Reef, Australia. Research project at the Heron Island in collaboration with the University of Queensland, Australia |
| 1/16/2001 - 2/8/2001 | Great Barrier Reef, Australia. Research project at the Heron Island in collaboration with the University of Queensland, Australia |
| 5/26/2001 - 6/5/2001 | Middle Atlantic Bight Shelf Research Cruise, cruise leader Prof. C. Reimers, University of Oregon. |
| 12/5/2000 - 12/12/2000 | Middle Atlantic Bight Shelf Research Cruise, cruise leader Prof. C. Reimers, University of Oregon. |
| 1/1/1997 - 11/1/1997 | Hawaiian Reefs. Research project at the University of Hawaii; research group Prof. F. Sansone. |
| 7/13/1994 - 7/20/1994 | Western Baltic Cruise, cruise leader Markus Huettel , RV Victor Hensen. |
| 4/5/1994 - 4/26/1994 | Chilean Shelf Research Cruise, cruise leader Dr. H. Fossing. |
| 11/1/1984 - 2/1/1985 | South East Asia Intertidal Flats. Research project in Phuket Thailand, project leader Prof. K. Reise |

Awards

- 2017 Mercator Fellow, Deutsche Forschungsgemeinschaft (DFG), German Science Foundation.
- 2017 Keynote Address, 14th International Estuarine Biogeochemistry Symposium (IEBS) Rimouski, Québec, Canada, June 4-7, 2017
- 2017 Moore Lecture University of Virginia
- 2015 Fellow of the Association for the Sciences of Limnology and Oceanography (ASLO)
- 2015 Excellence in Online Teaching
- 2015 Excellence in Online Course Design award with distinction
- 2012 Keynote Address. Estuarine & Coastal Sciences Association, ECSA 51th International Symposium, Klaipeda, Lithuania.

Teaching

Biological Oceanography with focus on coastal and estuarine systems.

OCB5635	Coastal Processes (3)
OCB4631	Estuarine and Coastal Ecology (3)
OCB5264	Reef Ecology Field course (3)
OCE4265	Coral Reef Ecology Online (3)
OCE5077	Marine Environment Pollution (3)
EOC4631	Marine Pollution (3)
OCB5067C	Ecology of Marine Sediments with Lab (4)
OCE5934	Capstone Experience
OCB5939	Biological Oceanography Seminar (1)
OCE1001	Elementary Oceanography (3)
BSC4933	Selected Topics in Biological Science (3)

Postdoctoral fellows (FSU)

Cédric Magen (Jun 2008–Feb 2010),
Richard Wildman (Dec 2009–Sep 2011),
Anita Poulsen (Aug 2014–Aug 2016)

Doctoral Committee Chair

Wiebke Ziebis (1997)
Antje Rusch (2000)
Mohammed Rasheed (2001)
Hans Røy (2003)
Elimar Precht (2003)
Christian Wild (2003)
Sandra Ehrenhauss (2004)
Markus Billerbeck (2004)
Lindsay E. Chipman, (2011).
Mike L. Santema, (2013).
Andy K. Canion, (2013).
Lee Russell, (2015).
Natalie Geyer, N. L., doctoral candidate.
Pascal M. Brignole, , doctoral candidate.
John Kaba III, doctoral candidate.
William Brian Wells, W. B., doctoral candidate.
Alireza Merikhi, doctoral candidate.

Master's Committee Chair

Meral Köbrich (2001).
Sabine Gonelli (2002).

Holger Woyt (2002).
Melissa K. Higgs (2008).
Matthias F. Laschet (2008).
Lindsay E. Chipman (2008)
Chiu H. Cheng (2013).
Ioana Bociu, master's candidate

Master's Committee Cochair

Suryaputra, I. G. N. A., graduate. (2009).

Doctoral Committee Member

Karina Khazmutdinova (2016)
Puja Jasrotia (2016)
Alex Harper (2016)
Erin E. Easton, (2014).
Amanda Tazaz, (2013).
Austin Todd, (2013).
Elizabeth Corbett, (2012).
Ekatarina V. Maksimova, (2012).
Jiyoung Paeng, (2012).
Flavien Gouillon, (2010).
Sambuddha Misra (2010)
Lindsay Scheef, (2009).
Thomas Gihring, (2009).
Denise Akob, (2008).
Isaac Santos, (2008).
Linda Sedlacek (2007).
Alison Meyers (2010).
Alex Rao (2005).
Jarrett W. Cruz, doctoral candidate.
Sarah Johnston, S. E., doctoral candidate.

Nishanth Krishnamurthy, doctoral candidate.
Nicole Morgan, N. B., doctoral candidate.
Arvind Shantharam, A. K., doctoral candidate.
Mauricio Silva Aguilera, M. G., doctoral candidate.
Lauren Gillies, L. E., d doctoral candidate.
Nelson Sella, K. A., doctoral candidate.
Noelle Bramer. doctoral candidate.

Doctoral Committee University Representative

Kasey Grace (2010)
Kelly C. Kingon, (2013).
Alli L. Paul, (2012).
David C. Podgorski, (2011).
Malak Tfaily (2011)
Nicole D. Fogarty, (2010).
Robert D. Ellis, R. D. (2015)
Will H. Ryan, doctoral candidate.
Chris R. Malinowski, doctoral student.
Bo Moe, B. J., doctoral student.

Master's Committee Member

Tam T. Nguyen, (2014).
Jennifer L. Schellinger, (2013).
Anna M. Strimaitis, (2012).
Steven M. Lambert, (2012).
Melissa Rohal (2012).
Claire E. Smith, (2012).
Stefan M. Bourgoin, (2011).
Kristin K. Eller, (2010).
Kati J. Gosnell, (2010).
Mike S. Humphrys, (2009).
I Gusti Ngurah Agung Suryaputra (2009)
Conrad Gleber (2008),
Andrew Hume (2008),
Nicole Fogarty (2007).
Evan Hunter (2006)
Marie Chapla Marie (2006),
Sara Cleveland Sara (2006),
Chris Sedlacek (2003),
Lauren E Gillies, L. E., student.
Austin Heil, A. D., student.

Supervision of Student Research Not Related to Thesis or Dissertation

Halpern, R. (Feb 2017–present).
Okolovitch, C. (Jan–Dec 2015).

Interns:

Stacia Dudley, Sarah Alissa Zuijdgeest, Corine Samaras, Sarah Hovey, Dayma Wasmund-Nault, Curtis Okolovitch

Service

Special Session organizer Gulf of Mexico Oil Spill and Ecosystem Science Conference (2017).
 Deepwater Horizon Oil in Coastal Environments: Observations, Experiments and Predictive Modeling
 Special Session organizer (Eddy correlation technique) at ASLO Ocean Sciences Meeting (2015)
 Special Session organizer (Permeable Sediments) at ASLO Ocean Sciences Meeting (2014)
 Associate Editor Limnology and Oceanography (2009-2015)
 Associate Editor Marine Biology (2010-present)
 Special Session organizer (Deepwater Horizon) at ASLO Ocean Sciences Meeting (2012)
 Special Session organizer (Eddy Correlation) at ASLO Ocean Sciences Meeting (2012)
 FSU FIO representative (2003-present)
 Panelist for NSF Chemical Oceanography (2011)
 Special Session organizer at AGU/ASLO conference (2009)
 Special Session organizer at ASLO Summer conference (2008)
 Panelist for NSF Chemical Oceanography (2007)
 Vice Chair Gordon Research Conference on “Permeable Sediments” (2006)
 Special Session organizer at ASLO Summer conference (2005)
 Workshop organizer EU-COSA Summer Workshop (2005)
 Co-chair SCOR Group 114 (1999-2004).
 Member of the Board of Directors of the International Association of Sediment and Water Science (IASWS) (2002-2007)
 Associate Editor Limnology and Oceanography (2001-2003)
 Member of the Research Council of the Max Planck Society (1998-2003).
 Conference organization committee AGU Chapman Conference (2004)
 Workshop organization committee CoOP CBED workshop (2004)

Reviewer for

Aquatic Ecology, Aquatic Geochemistry, Aquatic Microbial Ecology, Coastal and Shelf Science, Continental Shelf Research, Earth and Planetary Science Letters, Ecology Letters, Environmental Science and Technology Geo-Marine Letters, Helgoländer Meeresuntersuchungen, Hermann von Helmholtz-Gemeinschaft Deutscher Forschungszentren, Geochimica Cosmochimica Acta, Geophysical Research Letters, Hydrobiologia, International Review of Hydrobiology, ISME, Journal of Environmental Quality, Journal of Geophysical Research, Journal of Hydrology, Journal of Marine Research, Journal of Marine Systems, Journal of Sea Research, Estuarine, Limnology and Oceanography, Marine Chemistry, Marine Ecology, Marine Ecology-Progress Series, Marine Geology, Nature Geoscience, Netherlands Organization for Scientific Research (NWO), NOAA, NSF, Plos One, Seagrant, Senckenbergiana Maritima, Water Resources Research, Wetenschappelijk Onderzoek van de Tropen (WOTRO), 2015 Elsevier Recognized Reviewer

Memberships

American Society of Limnology and Oceanography,
 American Geophysical Union
 Geochemical Society
 Coastal and Estuarine Research Federation

Peer-reviewed Publications

- Huettel, M. (1986) Active Aggregation and Downshore Migration in the Trochid Snail *Umbonium-Vestiarium* (L) on a Tropical Sand Flat, *Ophelia* 26, 221-232.
- Huettel, M. (1990) Influence of the Lugworm *Arenicola-Marina* on Porewater Nutrient Profiles of Sand Flat Sediments, *Marine Ecology-Progress Series* 62, 241-248.
- Huettel, M., and Gust, G. (1992) Impact of Bioroughness on Interfacial Solute Exchange in Permeable Sediments, *Marine Ecology-Progress Series* 89, 253-267.
- Huettel, M., and Gust, G. (1992) Solute Release Mechanisms from Confined Sediment Cores in Stirred Benthic Chambers and Flume Flows, *Marine Ecology-Progress Series* 82, 187-197.
- Fossing, H., Gallardo, V. A., Jorgensen, B. B., Huettel, M., Nielsen, L. P., Schulz, H., Canfield, D. E., Forster, S., Glud, R. N., Gundersen, J. K., Kuver, J., Ramsing, N. B., Teske, A., Thamdrup, B., and Ulloa, O. (1995) Concentration and Transport of Nitrate by the Mat-Forming Sulfur Bacterium *Thioploca*, *Nature* 374, 713-715.
- Glud, R. N., Gundersen, J. K., Revsbech, N. P., Jorgensen, B. B., and Huettel, M. (1995) Calibration and Performance of the Stirred Flux Chamber from the Benthic Lander *Elinor*, *Deep-Sea Research Part I-Oceanographic Research Papers* 42, 1029-1042.
- Forster, S., Huettel, M., and Ziebis, W. (1996) Impact of boundary layer flow velocity on oxygen utilisation in coastal sediments, *Marine Ecology-Progress Series* 143, 173-185.
- Glud, R. N., Forster, S., and Huettel, M. (1996) Influence of radial pressure gradients on solute exchange in stirred benthic chambers, *Marine Ecology-Progress Series* 141, 303-311.
- Gust, G., Bowles, W., Giordano, S., and Huettel, M. (1996) Particle accumulation in a cylindrical sediment trap under laminar and turbulent steady flow: An experimental approach, *Aquatic Sciences* 58, 297-326.
- Huettel, M., Forster, S., Kloser, S., and Fossing, H. (1996) Vertical migration in the sediment-dwelling sulfur bacteria *Thioploca* spp in overcoming diffusion limitations, *Applied and Environmental Microbiology* 62, 1863-1872.
- Huettel, M., Ziebis, W., and Forster, S. (1996) Flow-induced uptake of particulate matter in permeable sediments, *Limnology and Oceanography* 41, 309-322.
- Ziebis, W., Forster, S., Huettel, M., and Jorgensen, B. B. (1996) Complex burrows of the mud shrimp *Callinassa truncata* and their geochemical impact in the sea bed (vol 382, pg 619, 1996), *Nature* 383, 457-457.
- Ziebis, W., Forster, S., Huettel, M., and Jorgensen, B. B. (1996) Complex burrows of the mud shrimp *Callinassa truncata* and their geochemical impact in the sea bed, *Nature* 382, 619-622.
- Ziebis, W., Huettel, M., and Forster, S. (1996) Impact of biogenic sediment topography on oxygen fluxes in permeable seabeds, *Marine Ecology-Progress Series* 140, 227-237.
- Berninger, U. G., and Huettel, M. (1997) Impact of flow on oxygen dynamics in photosynthetically active sediments, *Aquatic Microbial Ecology* 12, 291-302.
- Khalili, A., Basu, A. J., and Huettel, M. (1997) A non-Darcy model for recirculating flow through a fluid-sediment interface in a cylindrical container, *Acta Mechanica* 123, 75-87.
- Huettel, M., Ziebis, W., Forster, S., and Luther, G. W. (1998) Advective transport affecting metal and nutrient distributions and interfacial fluxes in permeable sediments, *Geochimica Et Cosmochimica Acta* 62, 613-631.

- Forster, S., Glud, R. N., Gundersen, J. K., and Huettel, M. (1999) In situ study of bromide tracer and oxygen flux in coastal sediments, *Estuarine Coastal and Shelf Science* 49, 813-827.
- Huettel, M., and Rusch, A. (2000) Transport and degradation of phytoplankton in permeable sediment, *Limnology and Oceanography* 45, 534-549.
- Rusch, A., and Huettel, M. (2000) Advective particle transport into permeable sediments - evidence from experiments in an intertidal sandflat, *Limnology and Oceanography* 45, 525-533.
- Rusch, A., Huettel, M., and Forster, S. (2000) Particulate organic matter in permeable marine sands - Dynamics in time and depth, *Estuarine Coastal and Shelf Science* 51, 399-414.
- Koch, E.W., M. Huettel. (2000). The impact of single seagrass shoots on solute fluxes between the water column and permeable sediments. *Biologia Marina Mediterranea* 7:235-239.
- Boudreau, B. P., Huettel, M., Forster, S., Jahnke, R. A., McLachlan, A., Middelburg, J. J., Nielsen, P., Sansone, F., Taghon, G., Van Raaphorst, W., Webster, I., Weslawski, J. M., Wiberg, P., and Sundby, B. (2001) Permeable marine sediments: overturning an old paradigm., *EOS* 82, 133-136.
- Rusch, A., Forster, S., and Huettel, M. (2001) Bacteria, diatoms and detritus in an intertidal sandflat subject to advective transport across the water-sediment interface, *Biogeochemistry* 55, 1-27.
- Khalili, A., Shivakumara, I. S., and Huettel, M. (2002) Effects of throughflow and internal heat generation on convective instabilities in an anisotropic porous layer, *Journal of Porous Media* 5, 187-198.
- Rasheed, M., Badran, M. I., Richter, C., and Huettel, M. (2002) Effect of reef framework and bottom sediment on nutrient enrichment in a coral reef of the Gulf of Aqaba, Red Sea, *Marine Ecology-Progress Series* 239, 277-285.
- Roy, H., Huettel, M., and Jorgensen, B. B. (2002) The role of small-scale sediment topography for oxygen flux across the diffusive boundary layer, *Limnology and Oceanography* 47, 837-847.
- Berg, P., Roy, H., Janssen, F., Meyer, V., Jorgensen, B. B., Huettel, M., and de Beer, D. (2003) Oxygen uptake by aquatic sediments measured with a novel non-invasive eddy-correlation technique, *Marine Ecology-Progress Series* 261, 75-83.
- Burnett, W. C., Bokuniewicz, H., Huettel, M., Moore, W. S., and Taniguchi, M. (2003) Groundwater and pore water inputs to the coastal zone, *Biogeochemistry* 66, 3-33.
- Huettel, M., Roy, H., Precht, E., and Ehrenhauss, S. (2003) Hydrodynamical impact on biogeochemical processes in aquatic sediments, *Hydrobiologia* 494, 231-236.
- Precht, E., and Huettel, M. (2003) Advective pore-water exchange driven by surface gravity waves and its ecological implications, *Limnology and Oceanography* 48, 1674-1684.
- Rasheed, M., Badran, M. I., and Huettel, M. (2003) Influence of sediment permeability and mineral composition on organic matter degradation in three sediments from the Gulf of Aqaba, Red Sea, *Estuarine Coastal and Shelf Science* 57, 369-384.
- Rasheed, M., Badran, M. I., and Huettel, M. (2003) Particulate matter filtration and seasonal nutrient dynamics in permeable carbonate and silicate sands of the Gulf of Aqaba, Red Sea, *Coral Reefs* 22, 167-177.
- Rusch, A., Huettel, M., Reimers, C. E., Taghon, G. L., and Fuller, C. M. (2003) Activity and distribution of bacterial populations in Middle Atlantic Bight shelf sands, *Fems Microbiology Ecology* 44, 89-100.

- Ehrenhauss, S., and Huettel, M. (2004) Advective transport and decomposition of chain-forming planktonic diatoms in permeable sediments, *Journal of Sea Research* 52, 179-197.
- Ehrenhauss, S., Witte, U., Buhning, S. I., and Huettel, M. (2004) Effect of advective pore water transport on distribution and degradation of diatoms in permeable North Sea sediments, *Marine Ecology-Progress Series* 271, 99-111.
- Ehrenhauss, S., Witte, U., Janssen, F., and Huettel, M. (2004) Decomposition of diatoms and nutrient dynamics in permeable North Sea sediments, *Continental Shelf Research* 24, 721-737.
- Lee, C. G., Huettel, M., Hong, J. S., and Reise, K. (2004) Carrion-feeding on the sediment surface at nocturnal low tides by the polychaete *Phyllodoce mucosa*, *Marine Biology* 145, 575-583.
- Precht, E., Franke, U., Polerecky, L., and Huettel, M. (2004) Oxygen dynamics in permeable sediments with wave-driven pore water exchange, *Limnology and Oceanography* 49, 693-705.
- Precht, E., and Huettel, M. (2004) Rapid wave-driven advective pore water exchange in a permeable coastal sediment, *Journal of Sea Research* 51, 93-107.
- Rasheed, M., Wild, C., Franke, U., and Huettel, M. (2004) Benthic photosynthesis and oxygen consumption in permeable carbonate sediments at Heron Island, Great Barrier Reef, Australia, *Estuarine Coastal and Shelf Science* 59, 139-150.
- Reimers, C. E., Stecher, H. A., Taghon, G. L., Fuller, C. M., Huettel, M., Rusch, A., Ryckelynck, N., and Wild, C. (2004) In situ measurements of advective solute transport in permeable shelf sands, *Continental Shelf Research* 24, 183-201.
- Roy, H., Huettel, M., and Jorgensen, B. B. (2004) Transmission of oxygen concentration fluctuations through the diffusive boundary layer overlying aquatic sediments, *Limnology and Oceanography* 49, 686-692.
- Wild, C., Huettel, M., Klueter, A., Kremb, S. G., Rasheed, M. Y. M., and Jorgensen, B. B. (2004) Coral mucus functions as an energy carrier and particle trap in the reef ecosystem, *Nature* 428, 66-70.
- Wild, C., Rasheed, M., Werner, U., Franke, U., Johnstone, R., and Huettel, M. (2004) Degradation and mineralization of coral mucus in reef environments, *Marine Ecology-Progress Series* 267, 159-171.
- Wild, C., Tollrian, R., and Huettel, M. (2004) Rapid recycling of coral mass-spawning products in permeable reef sediments, *Marine Ecology-Progress Series* 271, 159-166.
- de Beer, D., Wenzhofer, F., Ferdelman, T. G., Boehme, S. E., Huettel, M., van Beusekom, J. E. E., Bottcher, M. E., Musat, N., and Dubilier, N. (2005) Transport and mineralization rates in North Sea sandy intertidal sediments, Sylt-Romo Basin, Wadden Sea, *Limnology and Oceanography* 50, 113-127.
- Janssen, F., Faerber, P., Huettel, M., Meyer, V., and Witte, U. (2005) Pore-water advection and solute fluxes in permeable marine sediments (I): Calibration and performance of the novel benthic chamber system Sandy, *Limnology and Oceanography* 50, 768-778.
- Janssen, F., Huettel, M., and Witte, U. (2005) Pore-water advection and solute fluxes in permeable marine sediments (II): Benthic respiration at three sandy sites with different permeabilities (German Bight, North Sea), *Limnology and Oceanography* 50, 779-792.
- Roy, H., Huettel, M., and Jorgensen, B. B. (2005) The influence of topography on the functional exchange surface of marine soft sediments, assessed from sediment topography measured in situ, *Limnology and Oceanography* 50, 106-112.

- Wild, C., Rasheed, M., Jantzen, C., Cook, P., Struck, U., Huettel, M., and Boetius, A. (2005) Benthic metabolism and degradation of natural particulate organic matter in carbonate and silicate reef sands of the northern Red Sea, *Marine Ecology-Progress Series* 298, 69-78.
- Wild, C., Roy, H., and Huettel, M. (2005) Role of pelletization in mineralization of fine-grained coastal sediments, *Marine Ecology-Progress Series* 291, 23-33.
- Wild, C., Woyt, H., and Huettel, M. (2005) Influence of coral mucus on nutrient fluxes in carbonate sands, *Marine Ecology-Progress Series* 287, 87-98.
- Billerbeck, M., Werner, U., Bosselmann, K., Walpersdorf, E., and Huettel, M. (2006) Nutrient release from an exposed intertidal sand flat, *Marine Ecology-Progress Series* 316, 35-51.
- Billerbeck, M., Werner, U., Polerecky, L., Walpersdorf, E., deBeer, D., and Huettel, M. (2006) Surficial and deep pore water circulation governs spatial and temporal scales of nutrient recycling in intertidal sand flat sediment, *Marine Ecology-Progress Series* 326, 61-76.
- Cook, P. L. M., Wenzhofer, F., Rysgaard, S., Galaktionov, O. S., Meysman, F. J. R., Eyre, B. D., Cornwell, J., Huettel, M., and Glud, R. N. (2006) Quantification of denitrification in permeable sediments: Insights from a two-dimensional simulation analysis and experimental data, *Limnology and Oceanography-Methods* 4, 294-307.
- Franke, U., Polerecky, L., Precht, E., and Huettel, M. (2006) Wave tank study of particulate organic matter degradation in permeable sediments, *Limnology and Oceanography* 51, 1084-1096.
- Huettel, M., Wild, C., and Gonelli, S. (2006) Mucus trap in coral reefs: formation and temporal evolution of particle aggregates caused by coral mucus, *Marine Ecology-Progress Series* 307, 69-84.
- Precht, E., Janssen, F., and Huettel, M. (2006) Near-bottom performance of the Acoustic Doppler Velocimeter (ADV) - a comparative study, *Aquatic Ecology* 40, 481-492.
- Rusch, A., Huettel, M., Wild, C., and Reimers, C. E. (2006) Benthic oxygen consumption and organic matter turnover in organic-poor, permeable shelf sands, *Aquatic Geochemistry* 12, 1-19.
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