Participant Profile

for the
Turkish-German Strategy Workshop 2006
TÜBITAK Marmara Research Center,
Istanbul- Gebze Turkey
13 – 15 December 2006

International Bureau (IB) of the Federal Ministry of Education and Research (BMBF)

1. Contact details and personal information

Name:	Prof.Dr. Michael E. Böttcher	**Phone:**	0049-381-5197-402
Role/function[1]:	Vice leader Marine Geology Section IOW/University Professor	**Fax:**	0049-381-5197-352
Institution:	Leibniz Institute for Baltic Sea Research (IOW)	**E-Mail:**	Michael.boettcher@io-warnemuende.de
Department:	Marine Geochemistry-Geology	**Website:**	www.io-warnemuende.de
Address:	Seestr.15	**Organisation type[2]:**	Research Institute
Postcode and City:	D-18119 Rostock		

[1] **Role/function** e.g. working group leader, managing director, postdoc, PhD etc.
[2] **Organisation type** e.g. university, research institution, small and medium enterprise (SME), industry etc.

Working Group:	☐ 1 Material Technologies ☐ 2 Biotechnology, Genomics and Food ☐ 3 Energy ☐ 4 Information and Communication Technologies X 5 Environmental Protection, Climate Change and Sustainable Development
Areas of activity:	X research ☐ technology development ☐ demonstration x training ☐ dissemination ☐ other:
Keywords characterising your area of research:	**Please choose the appropriate key words (max. 5) from the following list:** http://www.cordis.lu/fp6/keywords Geochemistry, Biogeochemistry, Coastal and deep-sea ecosystems, environmental geology, carbon cycle

Participant Profile

for the
Turkish-German Strategy Workshop 2006
TÜBITAK Marmara Research Center,
Istanbul- Gebze Turkey
13 – 15 December 2006

International Bureau (IB)
of the Federal Ministry of
Education and Research
(BMBF)

Expertise, technologies and infrastructures available in your institution:

Research activities / expertise: Marine Geochemistry, Marine Chemistry, Physical Oceanography, Marine Geology**,** Marine Biology, Molecular Biology, Microbiology, Ecosystem Modelling

Methods: see: www.io-warnemuende.de

Key technologies: Sampling techniques (Sediment, water column); Sediment Geophysics; Analytical techniques (e.g., geochemistry, microbiology, molecular ecology; sediment properties); home of the German research vessel S.M. MERIAN

Infrastructures: see: www.io-warnemuende.de

Key publications with Black Sea focus:

BÖTTCHER M.E. & JØRGENSEN B.B. (2003) Biogeochemical cycles and Holocene paleoclimate in the western Black Sea. In (HEMLEBEN C., HOERNLE K., JØRGENSEN B.B. & ROETHER W. (Eds.)), METEOR-Berichte Ostatlantik - Mittelmeer - Schwarzes Meer, Cruise No. 51, 12 September - 28 December 2001, Universität Hamburg, 03-1, 4-4 - 4-6.

BÖTTCHER M.E., JØRGENSEN B.B, KALLMEYER J. & WEHAUSEN R. (2004) S and O isotope fractionation in the western Black Sea. Geochim. Cosmochim. Acta 68, A345

JØRGENSEN B.B., BÖTTCHER M.E., LÜSCHEN H., NERETIN L.N. & VOLKOV I.I. (2004) Anaerobic methane oxidation and a deep H_2S sink generate isotopically heavy sulfides in Black Sea sediments. Geochim. Cosmochim. Acta 68, 2095-2118.

NERETIN L.N., BÖTTCHER M.E., JØRGENSEN B.B., VOLKOV I.I., LÜSCHEN H. & HILGENFELDT K. (2004) Pyritization processes and greigite formation in the advancing sulfidization front in the Upper Pleistocene sediments of the Black Sea. Geochim. Cosmochim. Acta 68, 2081-2093.

NÄGLER T.F., SIEBERT C., LÜSCHEN H. & BÖTTCHER M.E. (2005) Sedimentary Mo isotope record across the Holocene fresh-brackish water transition of the Black Sea. Chem. Geol. 219, 238-259.

NERETIN L.N., BÖTTCHER M.E. & GRINENKO V.A. (2003) Sulfur isotope geochemistry of the Black Sea water column. Chem. Geol. 200, 59-69

NERETIN L.N., VOLKOV I.I., BÖTTCHER M.E. & GRINENKO V.A. (2001) A sulfur budget for the Black Sea anoxic zone. Deep-Sea Res. I 48, 2569-2593.

SCHIPPERS A., NERETIN L., LAVIK G., LEIPE T., POLLEGNE F. (2005) Manganese(II) oxidation driven by lateral oxygen intrusions in the western Black Sea. Geochim. Cosmochim. Acta 69, 2241-2252

Participant Profile

for the
Turkish-German Strategy Workshop 2006
TÜBITAK Marmara Research Center,
Istanbul- Gebze Turkey
13 – 15 December 2006

International Bureau (IB)
of the Federal Ministry of
Education and Research
(BMBF)

2. Past and present research collaborations

Are you familiar with the European Framework Programme?	**X Yes** ☐ **No** **x** with Framework Programme 5 ☐ with Framework Programme 6 ☐ with Framework Programme 7
EU-projects you are involved in: **Past projects**	**Programme title / contract number / title / acronym / your function (coordinator / partner / contractor)** C/T-NET - Rapid global change during the Cenomanian/Turonian oceanic anoxic event: Examination of a natural climatic experiment in Earth history **/ CT-NET / partner**
Present projects	
Other international collaborations:	**ETH Zürich, University of Toronto, Max Planck Institute Bremen, Australia**
Name(s) and contact details of potential partners:	**If you would like to suggest the participation of particular partners from the partner country based on existing contacts or collaboration experience, you are welcome to indicate their names and contact details below:** **Dr. Gilles Lericolais, IFREMER, France** **Prof.Dr. W. Michaelis, University of Hamburg, FRG** **Dr. F. Lamy, AWI Bremerhaven, FRG**

3. Presentation at the Workshop

I will give a presentation at the workshop (approx. 10 min.) to present my institution, my expertise, and my collaboration interests. The contents of my presentations is summarised below (max. 1 page).

The Baltic Sea Research Institute Warnemünde (abbreviated IOW for Institut für Ostseeforschung Warnemuende) is a non-university research institute, dedicated to interdisciplinary marine research in coastal and marginal seas (www.io-warnemuende.de).

The Black Sea is the world's largest anoxic basin and is the model system for ancient oxygen-deficient environments and the formation of organic matter-rich sediments. It offers an excellent environment to study biogeochemical element cycles as a function of Holocene climate changes on a high resolution scale. The specific sediment conditions lead to the formation of laminated sediments. The Black Sea is the ideal place to study the degradation of organic matter both under oxic and anoxic conditions, the formation of characteristic geochemical proxies in the sediments, and the biogeochemical processes catalyzed by microorganisms in the chemocline of the water column of a stratified basin. Results will be presented from investigations on S-C-Fe-Mn biogeochemistry associated with anaerobic methane oxidation in Holocene/Pleistocene sediments of the north-western Black Sea and processes in the Black Sea water column.

I agree with the publication of my data on the Workshop website!

PLEASE FILL IN THIS FORM UNTIL 22 SEPT. 2006 AND RETURN IT TO:

Internationales Buero des BMBF
s.krummacher@fz-juelich.de;
Christian.schache@dlr.de

TÜBITAK-Marmara Research Center
Sunullah.Ozbek@mam.gov.tr;
Artac.Turker@mam.gov.tr