

BIOGRAPHICAL SKETCH

Joseph John Grzymiski

Assistant Research Professor

Education/Training

Institution and Location	Degree	Year(s)	Field of Study
Bowdoin College	B.A.	1990-1994	Philosophy, Biology
University of Trondheim, Trondheim, Norway	Fulbright	1994-1995	Ecology
Rutgers University, New Brunswick, NJ	Ph.D.	1996-2001	Biophysics, Mol. Biology, Oceanography
Rockefeller University NY, NY	Post Doc	2001-2004	Biophysics, Physical chemistry
Desert Research Institute, Reno, NV	Post Doc.	2004-2007	Microbiology, Computational Biology

A. Positions and Honors:

Professional Positions:

2007 – present Assistant Research Professor, Desert Research Institute

Honors and Distinctions:

2005 – Career Advisor/Participant in the LTER Graduate Student Collaborative Research Symposium

2003 – Teaching assistant and Lecturer for the NSF Antarctic Biology Course

1995 – Fulbright Scholarship Recipient

B. Selected publications, patents and abstracts

1. Soo RM, Wood SA, Grzymiski JJ, McDonald IR, Cary SC. 2009. Microbial biodiversity of thermophilic communities in hot mineral soils of Tramway Ridge, Mount Erebus, Antarctica. *Env. Microbiol.* 11(3):715-728.
2. Grzymiski JJ, Murray AE, Campbell BJ, Kaplarevic M, Gao GR, Lee C, Daniel R, Ghadiri A, Feldman RA, and Cary SC. 2008. Metagenome analysis of an extreme microbial symbiosis reveals eurythermal adaptation and metabolic flexibility. *Proc Natl Acad Sci USA.* 105(45) 17516-17521.
3. Marsh AG and Grzymiski JJ. 2008. System, method and identification of antibiotic drug targeting sites in proteins of pathogenic bacteria. *Invention Disclosure.*
4. Liu Y, Edens GJ, Grzymiski J, Mauzerall D. 2008. Volume and enthalpy changes of proton transfers in the bacteriorhodopsin photocycle studied by millisecond time-resolved photopressure measurements *Biochem.* 47(29) 7752-7761.
5. Murray A and Grzymiski JJ. 2007. Diversity and genomics of Antarctic marine microorganisms. *Phil Trans R Soc B* 362(1488) 2259-2272.
6. Grzymiski JJ, Carter B, DeLong E, Feldman R, Ghadiri A, Murray A. 2006. Comparative analysis of genome fragments from 6 uncultured Antarctic marine, planktonic bacteria reveals widespread amino acid modification towards cold adaptation. *Appl Env Micro* 72(2) 1532-41.
7. Mauzerall D, Liu Y, Edens GJ, Grzymiski, J. 2003. Measurement of enthalpy and volume changes in photoinitiated reactions on the ms timescale with a novel pressure cell. *Photoch Photobio Sci* 2 (7): 788-790.

8. Edens GJ, Liu Y, Grzymiski J, and Mauzerall D. 2002. Pressure cell for time-resolved calorimetric measurements of photo-initiated reactions on the fractional millisecond and longer time scale. *Rev Sci Instruments*.74(4)2523-2529.
9. Grzymiski J, Schofield O, Bernhard J., and Falkowski P. 2002. The function of plastids in the deep-sea benthic foraminifer, *Nonionella stella*. *Limnol Oceanogr* 47: 1569-1580.
10. Grzymiski J. Moline MA, and Cullen JT. 2002. Modeling the atmosphere/ocean CO₂ cycle in relation to surface iron concentrations. In: *Modeling Dynamic Systems: Dynamic Modeling for Marine Conservation*. Lindholm J. and Ruth M. (eds) Springer Verlag 125-143.

C. Research Support

Current Research Projects

NSF #0632278 Murray (PI)

Biology, Office of Polar Programs, 2007-2010/3yr

IPY: Bacterioplankton genomic adaptation to Antarctic winter

The primary objectives of this program are to describe the differences in diversity and genomic content between austral winter and summer bacterioplankton communities; and to investigate winter-time bacterioplankton growth in order to understand the specific adaptations key to winter survival.

Role: Co-Principal Investigator