

Geophysical Research Abstracts,  
Vol. 10, EGU2008-A-00578, 2008  
SRef-ID: 1607-7962/gra/EGU2008-A-00578  
EGU General Assembly 2008  
© Author(s) 2008



## **Sea ice biogeochemistry - some key issues for modellers**

**D.N. Thomas**

School of Ocean Sciences, Bangor University, U.K. (d.thomas@bangor.ac.uk  
Tel/Fax+441248382878)

There have been about 150 years of sea ice research into the ecology of sea ice organisms in the Arctic and Southern Ocean pack ice. In the past 20 years great strides have been made in trying to understand the biogeochemical processes that take place within the ice matrix. There has been the tendency to simply consider many of the biogeochemical interactions as being a concentrated form of what we know from open water processes. However, this cannot be the case because of the unique temperature and salinity regime in which ice organisms are found within the brine channel system. Isolation within a semi solid matrix also makes nutrient and gas exchange dynamics very different from that in open waters. In this presentation some of these issues will be discussed in a way that hopefully can shed some light on how these can be considered in sea ice models of the future.