

## **Paleomagnetic and Rock-Magnetic Studies of Marine Sediments from the Maxwell Bay**

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Paleomagnetic and rock-magnetic studies of four, 1.8-2.8 m long, piston cores, collected from the Maxwell Bay around the Korean Antarctic Station, King George Island, were done to assess the potential utility of magnetic properties for stratigraphic and sedimentological studies. The results show that: 1) the sediments bear a strong, stable remanent magnetization, except coarse sediments close to the source area; 2) the downcore rock-magnetic profiles can be readily correlated between cores; and 3) variations in the magnetic grain size are in generally good agreement with the sediment grain size data. Above results suggest that, if longer cores are collected from this area in the near future, magnetic properties of the sediments can provide an excellent record of secular variations and/or magnetostratigraphic data which can be used for age dating, estimation of sedimentation rate of the sediments, etc. In addition, magnetic techniques can be used as rapid tools for stratigraphic and sedimentological studies, since magnetic methods are rapid and simple compared with conventional methods.