

PALEOMAGNETIC STUDY OF THE DEEP-SEA CORE (ODP  
LEG 120) FROM THE KERGUELEN PLATEAU,  
SOUTH-CENTRAL INDIAN OCEAN  
(ABSTRACT)

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The magnetostratigraphy of Sites 747, 748, 749, 750 and 751 of ODP Leg 120 at the Kerguelen Plateau, South-Central Indian Ocean which had been established by shipboard measurements, was extended and confirmed. About 840 sediment cubes were stepwise demagnetized with alternating fields to determine their characteristic direction of natural remanent magnetization. We obtained rather complete magnetostratigraphy from the middle Eocene to the Pliocene at high southern latitude. Paleomagnetic measurements were carried out for 106 basalt samples collected from Holes 120-747C, -748C, -749C and 750B. Characteristic inclinations of the magnetization of the samples were obtained mainly using stepwise thermal demagnetization method. Reliable paleomagnetic results were obtained from three sites (Sites 747, 748 and 749). Paleomagnetic inclinations of Sites 747, 748 and 750 are  $-54^\circ$ ,  $-63^\circ$  and  $-62^\circ$ , respectively. Considerable difference between the paleomagnetic and the present inclinations of Sites 747, 748 and 749 indicates that displacement in the direction of the geomagnetic meridian has taken place since formation of the basalt. Shallower paleomagnetic inclinations than the present inclinations at each site suggest a southward movement of the sites with respect to the geomagnetic pole. By comparing the APWP with Antarctica with VGP of the South Kerguelen Plateau, it is concluded that no major tectonic movement has taken place between the Kerguelen Plateau and Antarctica since formation of the basalts, *i.e.*, 100 to 115 Ma. Angular dispersion of the VGP is calculated as  $17^\circ$ .

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