

Proceedings of the NIPR Symposium
on
Antarctic Geosciences
No. 2

Papers presented at the "Eighth Symposium on Antarctic Geosciences" held at the National Institute of Polar Research, Tokyo, October 22–23, 1987

CONTENTS

Preliminary report of local seismic activity around Syowa Station, East Antarctica ... Junpei AKAMATSU, Soji YOSHIKAWA and Katsutada KAMINUMA...	1
A process of Mount Erebus eruption ... Katsutada KAMINUMA, Satoshi MIURA and Raymond R. DIBBLE...	7
Temperature measurements in the crater of Mount Erebus, Ross Island, Antarctica ... Satoshi MIURA, Katsutada KAMINUMA and Raymond R. DIBBLE...	17
Measurements and interpretation of gravity anomaly in and around Ross Island, Antarctica Satoshi MIURA and Katsutada KAMINUMA...	24
Gravity mapping around the Japanese Antarctic stations Yoichi FUKUDA, Jiro SEGAWA and Katsutada KAMINUMA...	30
Pseudo magnetic anomalies in the Antarctic Sea Takeshi MATSUMOTO and Katsutada KAMINUMA...	41
Paleomagnetic study of the Beacon Supergroup in Antarctica: Remagnetization in the Jurassic time Hideo SAKAI and Minoru FUNAKI...	46
Preliminary report of geophysical and geological surveys in the Amundsen Sea, West Antarctica Kazuo YAMAGUCHI, Yasuo TAMURA, Ikuro MIZUKOSHI and Tetsuro TSURU...	55
Metasomatic veins and minerals in mantle-derived xenoliths, Antarctica Kiyoaki NIIDA...	68
Geological and petrological characters of the plutonic rocks in the Lunckeryggen-Brattnipene region, Sør Rondane Mountains, East Antarctica Tohru SAKIYAMA, Yuhei TAKAHASHI and Yasuhito OSANAI...	80

Petrology of dolomitic marbles from Kasumi Rock, Prince Olav Coast, East Antarctica	Yoshikuni HIROI and Hideyasu KOJIMA	96
Nickel sulfides in pyroxenite from Langhovde, Lützow-Holm Bay, East Antarctica	Satoshi MATSUBARA and Yoichi MOTOYOSHI	110
Geochemistry of post-orogenic mafic dike rocks from the eastern Queen Maud Land, East Antarctica	Kazuyuki SHIRAISHI, Satoshi KANISAWA and Ken'ichi ISHIKAWA	117
Trace element characteristics of metamorphic and plutonic rocks from the Belgica Mountains, East Antarctica	Masatsugu OGASAWARA, Hideyasu KOJIMA, Keizo YANAI and Tamio NISHIDA	133
Reconstruction of maximum glacial extent in the central Sør Rondane Mountains, East Antarctica	Kazuomi HIRAKAWA, Norikazu MATSUOKA and Kiichi MORIWAKI	146
Survey of artificial radionuclides in the Antarctic	Takeo HASHIMOTO, Takao MORIMOTO, Yoshihiro IKEUCHI, Katsumi YOSHIMIZU, Tetsuya TORII and Kazuhisa KOMURA	162
Earthquake swarms on Mount Erebus, Antarctica (abstract)	Katsumi MURAKAMI and Katsutada KAMINUMA	169
High-grade metamorphic rocks from the central part of the Sør Rondane Mountains, East Antarctica (abstract)	Yasuhiro OSANAI, Yuhei TAKAHASHI and Tohru SAKIYAMA	170
Chlorine-rich calcic amphiboles: Their crystallochemical properties de- pending on petrogenetical environment (abstract)	Kanenori SUWA and Masaki ENAMI	171
Rb-Sr whole-rock ages of metamorphic rocks from eastern Queen Maud Land, East Antarctica (2): Tenmonai Rock and Rundvågshetta (abstract)	Takashi NAKAJIMA, Ken SHIBATA, Kazuyuki SHIRAISHI, Yoichi MOTOYOSHI and Yoshikuni HIROI	172
Geomorphic elements in the Dry Valleys region, Antarctica: With refer- ence to geomorphological mapping program (abstract)	Yoshio YOSHIDA, Kiichi MORIWAKI and Norikazu MATSUOKA	173
Chemical characteristics of pond waters in the Labyrinth of southern Victoria Land, Antarctica (abstract)	Tetsuya TORII, Shyu NAKAYA, Osamu MATSUBAYA, Genki I. MATSUMOTO, Nobuki TAKAMATSU, Noriyasu MASUDA, Tamio KAWANO and Haruta MURAYAMA	174
Program of the Eighth Symposium on Antarctic Geosciences		175
Author index		177