

ANTARCTIC RECORD Vol. 36 CONTENTS

No. 1 (March 1992)

Scientific Papers

- Estimation of geomagnetic conjugate points by using Pc5 pulsations (in Japanese)
.....*Ken-ichi Kato, Yutaka Tonegawa and Natsuo Sato*.... 1
- Glacial landforms and late Cenozoic history of the western Sør-Rondane Mountains (in Japanese)
.....*Kiichi Moriwaki and Kazuomi Hirakawa*.... 15
- Estimation of the net production of moss community at Langhovde, East Antarctica.....*Yoshio Ino*.... 49

Scientific Note

- Copepods collected along 33.5°E longitude of the Antarctic Ocean in the 1976 summer
.....*Satoshi Yamada, Atsushi Tanimura and Takashi Minoda*.... 60

Reports

- Activities of the wintering party at Syowa Station by the 31st Japanese Antarctic Research Expedition in 1990 (in Japanese)
.....*Yasuhiko Naito*.... 65
- Activities of the fourth wintering party at Asuka Station by the 31st Japanese Antarctic Research Expedition in 1990 (in Japanese)
.....*Kazuyuki Shiraishi*.... 83
- Japan-China collaboration research program on terrestrial biology at Great Wall Station in King George Island, in the summer of 1990/91 (in Japanese)*Shuji Ohtani and Takayuki Nakatsubo*.... 109
- Protocol on Environmental Protection to the Antarctic Treaty and its Annexes—International Agreement on the Comprehensive Measures for the Protection of Antarctic Environment and Ecosystems—(in Japanese)
.....*Yoshio Yoshida*.... 116

No. 2 (July 1992)

Scientific Papers

- Energy parameters of the incident auroral electrons derived by the intensity ratio of auroral emissions (in Japanese)
.....*Takayuki Ono, Ryusuke Satake, Takeo Yoshino and Takeo Hirasawa*.... 163
- Characteristics of 30-MHz interference noises observed by riometers (in Japanese).....*Akira Yukimatu*.... 181

- A laboratory test on construction of ice domes and their load-carrying capacity
(in Japanese)
.....*Toshio Hannuki, Kenji Ishizawa, Kenji Futami and Keita Tsukui*....203

Scientific Notes

- Development of imaging riometers (in Japanese)
.....*Hisao Yamagishi, Masanori Nishino, Mitsugi Sato, Yasuo Kato, Masayoshi Kojima, Natsuo Sato and Takashi Kikuchi*....227
- Quick-look system of auroral absorption images by imaging riometer (in Japanese)
.....*Mitsugi Sato, Hisao Yamagishi, Yasuo Kato and Masanori Nishino*....251
- Crystallographic analyses of clathrate hydrates included in Vostok ice cores (in Japanese)
.....*Takeo Hondoh, Tsutomu Uchida, Shinji Mae, P. Duval and V. Ya. Lipenkov*....268
- Counting Adélie penguins at colonies: Seasonal and annual changes (in Japanese)*Yutaka Watanuki and Yasuhiko Naito*....279
- Note on the structure of moss colonies composed of two species on King George Island, the South Shetland Islands
.....*Takayuki Nakatsubo and Shuji Ohtani*....285

Reports

- Observation of the upper atmosphere physics at Asuka Station by the 30th Japanese Antarctic Research Expedition in 1989 (in Japanese)
.....*Akira Yukimatu*....294
- Status report for the development of the Antarctic penetrator:
No. 2. 1990-year program (in Japanese)
.....*Kazuo Shibuya, Katsutada Kaminuma, Masahiko Hayakawa, Akio Fujimura, Shigeki Tsukamoto, Hitoshi Mizutani, Isao Yamada, Junji Koyama, Minoru Kasahara, Kiyoshi Ito and Toshihiko Kanazawa (Antarctic Penetrator Research Group)*....310

No. 3 (November 1992)

Scientific Paper

- A study of precipitation in the coastal area of Antarctica as observed at Syowa Station using a vertical pointing radar
.....*Makoto Wada and Hiroyuki Konishi*....341

Scientific Notes

- Data transfer system using a multi-ID ARGOS transmitter for the Antarctic Polar Patrol Balloon experiment (in Japanese)
.....*Ryoichi Fujii, Kazuhiko Ono and Shigeo Ohta*....350

A newly developed snow vehicle (SM100S) for Antarctica
I. Necessity and process of the development (in Japanese)
..... *Sadao Takeuchi, Atsushi Kino, Masayuki Hosoya,
Jiro Yoshida and Kenji Ishizawa*... 363

A newly developed snow vehicle (SM100S) for Antarctica
II. Design of the system (in Japanese)
..... *Masashi Nakajima and Masayuki Hosoya*... 376

A newly developed snow vehicle (SM100S) for Antarctica
III. Low temperature toughness of the welded joints of the structural
steel (in Japanese) *Shin Sakui and Masashi Nakajima*... 393

A newly developed snow vehicle (SM100S) for Antarctica
IV. Low temperature properties of crawler belt (in Japanese)
..... *Etsuji Maekawa and Yoshihide Terayama*... 398

A newly developed snow vehicle (SM100S) for Antarctica
V. Result of general performance tests (in Japanese)
..... *Mitsuru Saito, Tsuyoshi Seki and Masayuki Hosoya*... 410

Report

Activities of the wintering party at Syowa Station by the 32nd Japanese
Antarctic Research Expedition in 1991 (in Japanese)... *Yoshiyuki Fujii*... 441