## MEMOIRS OF NATIONAL INSTITUTE OF POLAR RESEARCH

(Nos. 1-11: Japanese Antarctic Research Expedition Scientific Reports)

## Series A Aeronomy

- No. 1. OGUTI, T.: Inter-relations among the upper atmosphere disturbance phenomena in the auroral zone. February 1963
- No. 2. HURUHATA, M.: Airglow intensity observed on the SOYA, Japanese expedition ship to the Antarctic 1956-1962. October 1963
- No. 3. NAGATA, T. et al.: Geomagnetically conjugate relationship of polar geomagnetic disturbance—Particularly the distinct geomagnetic conjugacy between Syowa Station in Antarctica and Reykjavik in Iceland.

  March 1966
- No. 4. KANEDA, E. et al.: Photographic atlas of auroral forms observed at Syowa Station.

  March 1968
- No. 5. KODAMA, M.: Geomagnetic and solar modulation effects of sea-level cosmic ray intensity—Summary of cosmic ray latitude surveys aboard the expedition ship SOYA during 1956-1962.

  August 1968
- No. 6. KOKUBUN, S. et al.: VLF emissions study at Syowa Station, Antarctica
  —Polar chorus emission and worldwide geomagnetic variation.

March 1969

- No. 7. NISHINO, M. and Y. TANAKA: Polarization and arriving direction of VLF emissions.

  July 1969
- No. 8. HIRASAWA, T. and K. KAMINUMA: Space-time variation of aurora and geomagnetic disturbances—Auroral observations at Syowa Station in Antarctica, 1967–1968.
- No. 9. KODAMA, M. and A. INOUE: Availability and limitation of multiplicity measurements in the NM-64 neutron monitor at Syowa Station, Antarctica.

  August 1970
- No. 10. HIRASAWA, T. and T. NAGATA: Constitution of polar substorm and associated phenomena in the southern polar region. March 1972
- No. 11. FUKUNISHI, H. and T. TOHMATSU: Constitution of proton aurora and electron aurora substorms.

  March 1973
- No. 12. OGUTI, T.: Metamorphoses of aurora. March 1975
- No. 13. TANAKA, Y. et al.: Study of auroral VLF hiss observed at Syowa Station, Antarctica. February 1976
- No. 14. KODAMA, M. and T. OGUTI: Spatial distributions of auroral zone X-rays as viewed from rocket altitudes.

  July 1976