



## Contents

### Part 1

|   |     |
|---|-----|
| Introduction .....  | 3   |
| 1. Electron density .....                                   | 6   |
| 2. Electron Energy Spectrum .....                           | 34  |
| 3. Electron temperature .....                               | 42  |
| 4. Plasma waves and magnetic field .....                    | 68  |
| 5. Neutral particles (density, temperature, and wind) ..... | 78  |
| 6. Airglow .....  | 98  |
| 7. Solar radiation .....                                    | 104 |

### Part 2

|   |     |
|---|-----|
| 1. Data of Cosmic Rays, Energetic Electrons, and Gamma Rays ... | 111 |
| 2. Data on Energetic Radiation Belt Particles .....             | 177 |

### Part 3

|  |     |
|--|-----|
| 1. Precipitating Electrons in the Low L Region ..... | 187 |
| 2. X ray Astronomy in Japan .....                    | 195 |