Preface

This special issue of Earth, Planets and Space contains nine contributions related to the 2nd Hayabusa International Symposium, which was held at Takeda Hall in the University of Tokyo during July 12–14, 2006.

The Hayabusa (MUSES-C) spacecraft, launched by JAXA's MV rocket on 9 May 2003, was designed to obtain samples from the surface of an Apollo-type near-Earth asteroid 25143 Itokawa and return them to Earth. Between 12 September and 26 November 2005, Hayabusa observed the asteroid by various instruments such as a multi-band camera, an infrared spectrometer, an X-ray spectrometer and a laser altimeter (Fujiwara *et al.*, 2006). Hayabusa revealed tantalizing features of the sub-kilometer asteroid. Itokawa is a "rock rubble pile" without fine regolith. The touch down onto, and lifting off from, the asteroid's surface for the sampling was performed twice on 20 and 26 November 2005. Currently Hayabusa, with the sample capsule, is on its way to the Earth with an expected arrival in June, 2010.

The subtitle of the 2nd Hayabusa International Symposium was International Science Symposium on Sample Returns from Solar System Minor Bodies—In-situ investigation of Itokawa, Sample Analyses Preparation and Spacecraft Operation. Therefore, broader topics in addition to Hayabusa's results were discussed in the symposium. In this special issue, four papers discuss the results of Hayabusa's observations of Itokawa, two papers discuss the ground-based observations of Itokawa, and three papers discuss other topics. We believe these papers represent significant progress on the study of small bodies in the solar system.

We wish to thank all the participants of the symposium. We gratefully acknowledge the authors and reviewers for their efforts to publish this Hayabusa special issue of Earth, Planets and Space.

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Reference

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