

## Preface

*For dust you are and to dust you will return*

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*Genesis 3:19*

Dust is a ubiquitous feature of the cosmos, impinging directly or indirectly on most fields of modern astronomy. Dust is found to be present in a wide variety of astrophysical environments, ranging from circumstellar envelopes around evolved stars to diffuse and dense interstellar clouds and star-forming regions, and from protoplanetary disks around young stars to active galactic nuclei and distant objects. Dust plays a vital role in the evolution of galaxies as an absorber, scatterer, and emitter of electromagnetic radiation, as a driver for the mass loss of evolved stars, as building blocks for the formation of stars and planets, as a catalyst for the formation of H<sub>2</sub> and complex organic molecules, and as an agent for heating the interstellar gas. Nearly half of the bolometric luminosity of the local universe is reprocessed by dust into the mid- and far-infrared. Needless to say, there is ample evidence that demonstrates the importance of studying the astrophysics of dust.

This is the 3rd special issue of *Earth, Planets and Space* (EPS) devoted to the astrophysics of dust, entitled “Cosmic Dust: Its Formation and Evolution (III)”. It consists of 15 papers peer-reviewed by two or more experts, covering a broad range of dust topics: solar system dust, interstellar dust, and intergalactic dust as well as light scattering, in-situ analyser developments, and laboratory astrophysics. All these papers had been reported in the “Cosmic Dust” session of the Planetary Sciences Section of the 8th Asia Oceania Geosciences Society (AOGS) annual meeting held in Taipei, Taiwan on August 8–12, 2011. We have been organizing this session since 2006 in order to find a consensus among experts on cosmic dust and to establish a dust community across Asian and Oceanian countries for the development of cosmic dust research worldwide. The “Cosmic Dust” session of AOGS 2011 attained the highest number of abstracts with 51 presentations contributed by experts from Japan, mainland China, Taiwan, US, France, Finland, Germany, and Poland. We would like to express our gratitude to all the participants of the AOGS 2011 “Cosmic Dust” session, in particular, to those who have continuously encouraged us to organize the session. This EPS special issue will serve partly as the proceedings of the “Cosmic Dust” session of AOGS 2011. We thank all the authors and the reviewers as well as the editorial board of EPS and Terra Scientific Publishing Company (TERRAPUB) for their efforts putting into this special issue. We will be glad if this EPS special issue as well as the “Cosmic Dust” meeting series could help the field of cosmic dust research take root and flourish in Asia and Oceania.

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