Origin and Evolution of Interplanetary Dust

edited by

A. C. LEVASSEUR-REGOURD

Université Paris VI, Aeronomie CNRS, Verrières-le-Buisson, France

and

H. HASEGAWA

Osaka Sangyo Univ., Osaka, Japan

The origin and evolution of interplanetary dust have been extensively discussed ever since the sixties when a series of meetings began which brought together the interplanetary dust community. More recently, during the eighties, new knowledge has emerged from comprehensive studies of cometary flybys and from infrared space observations. At present, new, *in-situ* explorations of interplanetary dust are providing some promising results.

The book begins with investigations of interplanetary dust by space and Earth environmental studies (Part I), by physical and chemical analysis (Part II), and by zodiacal light and optical studies (Part III). Topics related to cometary dust (Part IV), meteoroids and meteor streams (Part V), and circumplanetary dust, are then presented. Finally, the origin of interplanetary dust (Part VII) is tracked back to comets or asteroids and to interstellar or circumstellar dust. A summary demonstrates that interplanetary dust studies are thriving and may provide a clearer understanding of the formation of the solar system.

This volume contains most of the presentations made at the 5th meeting in this series (International Astronomical Union Colloquium No. 126), held in Kyoto, Japan, August 1990. The 90 papers (including 20 invited ones), which have all been refereed and edited, provide an up-to-date synopsis of the origin and evolution of interplanetary dust.