深 空 探 测 学 报(中英文)(双月刊)

第 9 卷　第 2 期　2022 年 4 月

目　　次

专题：月球水冰采样探测技术研究

（主持人：姜生元 教授，哈尔滨工业大学）

研究论文

专栏主持人简介

姜生元，哈尔滨工业大学长聘教授、博士生导师，长期开展星球采样探测、星表智能作业机器人、宇航空间机构及控制领域的前沿技术与航天应用研究。国家“万人计划”科技创新领军人才、科技部重点领域创新团队负责人。获全国优秀教师、高等学校省级教学名师、探月工程三期关键技术攻关先进个人等荣誉称号。哈尔滨工业大学机器人技术与系统国家重点实验室、宇航空间机构及控制技术国防重点学科实验室骨干教师。参与完成了“嫦娥五号”月面采样封装关键技术攻关和月面钻取采样装置研制、“玉兔号”月球车及“祝融号”火星车转移机构研制等任务，目前正在开展月壤水冰高拟实度模拟及其定量采样和就位探测等研究工作。

期刊基本参数：CN 10-1707/V * 2014 * b * A4 * 138 * zh + en* P * ￥30.00 * 1000* 15* 2022-4

Journal of Deep Space Exploration

Vol. 9 No. 2 (April, 2022)

CONTENTS

Topic: Sampling and Detection Technology of Icy Lunar Regolith

(Guest Editor: Professor JIANG Shengyuan, Harbin Institute of Technology)

Research Papers

Guest Editor Introduction

Jiang Shengyuan is a tenured professor and doctoral supervisor of Harbin Institute of Technology. Long-term research fields are on cutting-edge technologies and aerospace applications in the of planetary sampling and exploration, space agency and control intelligent star catalog operation robot. He is a leading talent in science and technology innovation under the national "ten thousand talents program" and the head of the innovation team in key areas of the ministry of science and technology. He has won the honorary titles of national outstanding teacher, provincial teaching teacher of higher education institutions, and advanced individual of key technology research in phase III of the lunar exploration project. He is the backbone teacher of the state key laboratory of robotics and system, and the national defense key discipline laboratory of research center of aerospace mechanism and control of harbin institute of technology. He participated in the completion of the key technology research on the Chang'E-5 lunar subsurface sampling and packaging, the development of the lunar subsurface drilling and sampling device, the development of the Yutu lunar rover and the Zhurong Mars rover transfer mechanism. At present, research work such as simulation of icy lunar regolith high quasi-solidity, quantitative sampling and in-situ detection is being carried out.