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Nota di contenuto	Future Materials Science Research on the International Space Station -- Copyright -- Acknowledgments -- Preface -- Contents -- Executive Summary -- NASA'S MICROGRAVITY RESEARCH PROGRAM -- NASA'S MICROGRAVITY RESEARCH SOLICITATION AND SELECTION PROCESSES -- SPACE STATION FURNACE FACILITY CORE CAPABILITY -- REFERENCES -- 1 Microgravity Research and the Space Station Furnace Facility Core -- NASA'S MICROGRAVITY MATERIALS-SCIENCE RESEARCH PROGRAM -- SPACE STATION FURNACE FACILITY CORE CAPABILITY -- 2 NASA's Microgravity Research Solicitation and Selection Processes -- OVERVIEW -- Solicitation Process -- Evaluation and Selection Process -- INVENTORY OF RESEARCH PROJECTS -- 3 Ability of the Space Station

Furnace Facility Core to Support Materials Science Experiments that...
-- METALS AND ALLOYS -- Nucleation and Metastable States in the Microgravity Environment -- Microstructures Resulting from Solidification in a Microgravity Environment -- Phase-Separating Systems and Interfacial Phenomena -- Solutal Transport -- Ability of Space Station Furnace Facility Core to Support Microgravity Metallurgical Research -- SEMICONDUCTORS -- Microgravity Semiconductor Research -- Ability of Space Station Furnace Facility Core to Support Semiconductor Research -- CERAMICS AND GLASS -- Ceramics Research in Microgravity -- Glass Research in Microgravity -- Ability of Space Station Furnace Facility Core to Support Ceramic and Glass Research -- POLYMERIC MATERIALS -- Polymeric Materials Research in Microgravity -- Ability of Space Station Furnace Facility Core to Support Polymer Research -- CONCLUSIONS AND RECOMMENDATIONS -- Temperature-Control Capabilities -- Levitation Capabilities -- Vacuum Quality -- Gas Handling -- Liquid Handling -- Power Availability -- References -- Acronyms -- Appendices.
Appendix A Summary of Space Station Furnace Facility Core Systems Science Requirements -- Appendix B Biographical Sketches of Committee Members.
