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Nota di contenuto	<p>""INTERNATIONAL BENCHMARKING OF US MATERIALS SCIENCE AND ENGINEERING RESEARCH""; ""Copyright""; ""Preface""; ""Contents""; ""EXECUTIVE SUMMARY""; ""1 BACKGROUND ""; ""2 INTRODUCTION ""; ""2.1. HOW IMPORTANT IS IT FOR THE UNITED STATES TO LEAD IN MATERIALS SCIENCE AND ENGINEERING?""; ""2.2. WHAT IS MATERIALS SCIENCE AND ENGINEERING?""; ""2.3 WHAT KEY FACTORS CHARACTERIZE THE FIELD?""; ""2.4. WHAT IS THE INTERNATIONAL NATURE OF MATERIALS SCIENCE AND ENGINEERING?""; ""2.5. WHAT ARE SOME CAVEATS?""; ""2.6. PANEL CHARGE AND RATIONALE""; ""3 DETERMINANTS OF SCIENTIFIC LEADERSHIP ""</p> <p>""3.1. NATIONAL IMPERATIVES""""3.2. INNOVATION""; ""3.2.1. Pluralism""; ""3.2.2. Partnerships""; ""3.2.3. Regulation""; ""3.2.4. Professional Societies""; ""3.3. MAJOR FACILITIES""; ""3.3.1. Neutron Scattering Facilities""; ""3.3.2. Synchrotron Sources""; ""3.3.3. Nanofabrication""; ""3.3.4. Computing""; ""3.3.5. Smaller Scale Facilities""; ""3.4. CENTERS""; ""3.5. HUMAN RESOURCES""; ""3.6. FUNDING""; ""4 BENCHMARKING RESULTS ""; ""4.1. APPROACH""; ""4.2. ASSESSMENT OF CURRENT LEADERSHIP""; ""4.2.1. Biomaterials""; ""4.2.2. Ceramics""; ""4.2.3. Composites""; ""4.2.4. Magnetic Materials"" ""4.2.5. Metals""""4.2.6. Electronic and Optical-Photonic Materials""; ""4.2.7. Superconducting Materials""; ""4.2.8. Polymers""; ""4.2.9.</p>

Catalysts"; ""5 PROJECTION OF LEADERSHIP DETERMINANTS ""; ""5.1. OVERVIEW""; ""5.2. RECRUITMENT OF TALENTED RESEARCHERS""; ""5.3. FUNDING""; ""5.4. INFRASTRUCTURE""; ""5.5. COOPERATIVE GOVERNMENT INDUSTRIAL ACADEMIC RESEARCH""; ""6 LIKELY FUTURE POSITIONS ""; ""6.1. INTRODUCTION""; ""6.2. BIOMATERIALS""; ""6.3. CERAMICS""; ""6.4. COMPOSITES""; ""6.5. MAGNETIC MATERIALS""; ""6.6. METALS""; ""6.7. ELECTRONIC AND OPTICAL PHOTONIC MATERIALS"" ""6.8. SUPERCONDUCTING MATERIALS""""6.9. POLYMERS""; ""6.10. CATALYSTS""; ""7 SUMMARY AND CONCLUSIONS ""; ""7.1. THE UNITED STATES IS AMONG THE WORLD'S LEADERS IN ALL SUBFIELDS, AND IT IS THE LEADER IN SOME""; ""7.2. THE FLEXIBILITY OF THE ENTERPRISE IS AS MUCH A KEY INDICATOR OF LEADERSHIP AS IS THE AMOUNT OF FUNDING""; ""7.3. THE INNOVATION SYSTEM IS A MAJOR DETERMINANT OF US LEADERSHIP""; ""7.4. THE UNITED STATES ENJOYS STRENGTH THROUGH INTELLECTUAL AND HUMAN DIVERSITY"" ""7.5. SHIFTING FEDERAL AND INDUSTRY FUNDING PRIORITIES, A POTENTIAL REDUCTION IN ACCESS TO FOREIGN TALENT, AND DETERIORATING""""8 REFERENCES""; ""APPENDIX A PANEL AND STAFF BIOGRAPHICAL INFORMATION ""; ""STAFF""; ""APPENDIX B BENCHMARKING RESULTS TABLES ""; ""APPENDIX C HOT TOPICS LIST ""; ""BIOMATERIALS""; ""CERAMICS""; ""COMPOSITES""; ""MAGNETIC MATERIALS""; ""METALS""; ""ELECTRONIC AND OPTICAL PHOTONIC MATERIALS""; ""SUPERCONDUCTING MATERIALS""; ""POLYMERS""; ""CATALYSTS""
