

1. Record Nr.	UNINA9910959614703321
Titolo	Advanced research instrumentation and facilities / / Committee on Advanced Research Instrumentation, Committee on Science, Engineering, and Public Policy, National Academy of Sciences, National Academy of Engineering, and Institute of Medicine of the National Academies
Pubbl/distr/stampa	Washington, D.C., : The National Academies Press, c2006
ISBN	9786610742271 9780309180191 0309180198 9781280742279 1280742275 9780309551960 030955196X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (205 p.)
Disciplina	502.8
Soggetti	Scientific apparatus and instruments Research - United States
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 174-178).
Nota di contenuto	""Front Matter""; ""Preface""; ""Acknowledgments""; ""Contents""; ""Boxes, Figures, and Tables""; ""Summary""; ""1 Introduction""; ""2 Introduction to Instrumentation""; ""3 Instrumentation and Universities""; ""4 Federal Agency and Interagency Programs and Activities""; ""5 Overview of Conclusions, Findings, and Recommendations""; ""Appendices""; ""A Biographic Information on Members and Staff of Committee on Advanced Research Instrumentation""; ""B Charge to the Committee""; ""C Summary of Institutional Survey Results""; ""D Summary of Researcher Survey Results"" ""E Summary of Disciplinary Society Survey Results""""F Summary of National Laboratory Survey Results""; ""G Selected Bibliography""
Sommario/riassunto	In recent years, the instrumentation needs of the nation (TM)s research

communities have changed and expanded. The need for particular instruments has become broader, crossing scientific and engineering disciplines. The growth of interdisciplinary research that focuses on problems defined outside the boundaries of individual disciplines demands more instrumentation. Instruments that were once of interest only to specialists are now required by a wide array of scientists to solve critical research problems. The need for entirely new types of instruments "such as distributed networks, cybertools, and sensor arrays "is increasing. Researchers are increasingly dependent on advanced instruments that require highly specialized knowledge and training for their proper operation and use. The National Academies Committee on Science, Engineering, and Public Policy Committee on Advanced Research Instrumentation was asked to describe the current programs and policies of the major federal research agencies for advanced research instrumentation, the current status of advanced mid-sized research instrumentation on university campuses, and the challenges faced by each. The committee was then asked to evaluate the utility of existing federal programs and to determine the need for and, if applicable, the potential components of an interagency program for advanced research instrumentation.
