

1. Record Nr.	UNINA9910965117003321
Titolo	Seeing photons : progress and limits of visible and infrared sensor arrays // Committee on Developments in Detector Technologies, Standing Committee on Technology Insight--Gauge, Evaluate, and Review, Division on Engineering and Physical Sciences, National Research Council of the National Academies
Pubbl/distr/stampa	Washington, D.C., : National Academies Press, 2010
ISBN	9786612885648 9780309162302 0309162300 9781282885646 1282885642 9780309153058 0309153050
Edizione	[1st ed.]
Descrizione fisica	1 online resource (195 p.)
Disciplina	621.38928
Soggetti	Infrared technology - Research Infrared detectors - Research Photons - Research
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.
Nota di contenuto	""Front Matter""; ""Preface""; ""Acknowledgment of Reviewers""; ""Contents""; ""Acronyms""; ""Summary""; ""1 National Security Context of Detector Technologies""; ""2 Fundamentals of Ultraviolet, Visible, and Infrared Detectors""; ""3 Key Current Technologies and Evolutionary Developments""; ""4 Emerging Technologies with Potentially Significant Impacts""; ""5 The Global Landscape of Detector Technologies""; ""Appendixes""; ""Appendix A: Biographical Sketches of Committee Members""; ""Appendix B: Meetings and Participating Organizations""; ""Appendix C: Background Information on Radiation Hardening for Detectors""
Sommario/riassunto	The Department of Defense recently highlighted intelligence, surveillance, and reconnaissance (ISR) capabilities as a top priority for

U.S. warfighters. Contributions provided by ISR assets in the operational theaters in Iraq and Afghanistan have been widely documented in press reporting. While the United States continues to increase investments in ISR capabilities, other nations not friendly to the United States will continue to seek countermeasures to U.S. capabilities. The Technology Warning Division of the Defense Intelligence Agency's (DIA) Defense Warning Office (DWO) has the critical responsibility, in collaborations with other components of the intelligence community (IC), for providing U.S. policymakers insight into technological developments that may impact future U.S. warfighting capabilities. To this end, the IC requested that the National Research Council (NRC) investigate and report on key visible and infrared detector technologies, with potential military utility, that are likely to be developed in the next 10-15 years. This study is the eighth in a series sponsored by the DWO and executed under the auspices of the NRC TIGER (Technology Insight-Gauge, Evaluate, and Review) Standing Committee.
