

1. Record Nr.	UNINA9910452560103321
Autore	Sokolnikov Andre
Titolo	THz identification for defense and security purposes [[electronic resource]] : identifying material, substances, and items // Andre U. Sokolnikov
Pubbl/distr/stampa	Singapore ; ; Hackensack, N.J., : World Scientific, 2013
ISBN	981-4452-39-4
Descrizione fisica	1 online resource (229 p.)
Disciplina	621.381/3
Soggetti	Terahertz technology Materials - Analysis Electronic books.
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 and index.
Nota di contenuto	Basics of electromagnetism -- Mathematical methods of identification -- Physics of producing, detecting of THz waves and interaction with matter -- Methods and technology for THz sources, detectors, and processing electronics : imaging considerations -- Electronics for portable THz devices -- THz applications for defense and security -- Medical and other applications of THz radiation.
Sommario/riassunto	The principal aim of this book is to provide the reader with the understanding of the possibilities and features of THz identification as opposed to more traditional techniques such as X-rays, microwaves, etc. by elucidating and illustrating the principles of THz identification and its applications in a systematical way. Its scope includes a description of the physical principles of THz generation, transmission and detection, as well as of the applications of THz identification. The inherent advantages and potential benefits of the terahertz (THz) phenomenon, potential that encompasses various