Record Nr. UNINA9910452560103321 Autore Sokolnikov Andre Titolo THz identification for defense and security purposes [[electronic resource]]: identifying material, substances, and items / / Andre U. Sokolnikov Singapore; ; Hackensack, N.J., : World Scientific, 2013 Pubbl/distr/stampa **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