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Accession number:20125115819320

Title:Progress of terahertz spectroscopic characteristics of energetic materials

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Source title:Binggong Xuebao/Acta Armamentarii

Abbreviated source title:Binggong Xuebao

Volume:33

Issue:SUPPL.1

Issue date:May 2012

Publication year:2012

Pages:346-354

Language:Chinese

ISSN:10001093

CODEN:BIXUD9

Document type:Journal article (JA)

Publisher: China Ordnance Society, P.O. Box 2431, Beijing, 100081, China

Abstract:Terahertz technology applied to security detection, especially for energetic materials testing, has been a hotspot of terahertz research. The basic characteristics of terahertz wave and the statistical data of 24 energetic materials, such as RDX, HMX, TXT, PETN, 2, 4-DNT, Ε-HNIW, were introduced. Furthermore, the data processing methods of terahertz spectrum were studied, including denoising, identification and quantitative analysis, et al. Based on this, some technical problems and the difficulties that need to be resolved in future work were summarized.

Number of references:43

Main heading:Data processing

Controlled terms:Explosives

Uncontrolled terms:2 ,4-DNT - Data processing methods - De-noising - Hot spot - Overview -Security detection - Spectroscopic characteristics - Statistical datas - Tera Hertz - Terahertz spectra - Terahertz technology

Classification code:723.2 Data Processing and Image Processing - 804 Chemical Products Generally

Database:Compendex

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