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Accession number:WOS:000306268200001

Title:Identifying Radix Curcumae by using terahertz spectroscopy

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Source title:OPTIK

Abbreviated source title:OPTIK

Volume:123

Issue:13

Issue date:2012

Pages:1129-1132

Language:English

ISSN:0030-4026

Document type:Article

Publisher:ELSEVIER GMBH, URBAN & FISCHER VERLAG, OFFICE JENA, P O BOX 100537, 07705 JENA, GERMANY

Abstract:The absorption spectra from 0.2 THz to 1.6 THz of four kinds of similar Chinese herbs, including huangyujin, Ivyujin, guiujin and wenyujin, have been investigated by terahertz time-domain spectroscopy (THz-TDS). Furthermore, by using support vector machines (SVM) method, the linear kernel function, the polynomial kernel function, and the radial basis kernel function are employed for separating four kinds of Radix Curcumae. The calculated results show that the accuracy of discrimination for these four kinds of Chinese herbs is 100%. (C) 2011 Elsevier GmbH. All rights reserved.

Number of references:14

Main heading:Optics

DOI:10.1016/j.ijleo.2011.08.005