



Agilent Technologies

Agilent J&W HP-WAX

A collection of citations to advance your research

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Food testing and agriculture

[Chemical composition and antibacterial activities of essential oils from *Zingiber spectabile* Griff](#)

Journal of Essential Oil Research, **24**, 305-313
(2012)
Y. Sivasothy *et al.*

Tags
HP-5ms Ultra Inert, HP-WAX, 7890A, 7683B,
food testing and agriculture, dietary
supplements, natural compounds and additives

Abstract

The essential oils of the leaves and rhizomes of *Zingiber spectabile* Griff. were analyzed by capillary gas chromatography (GC) and GC–mass spectrometry (GC–MS) following the isolation by hydrodistillation. In total, 80 compounds were identified in its leaf and rhizome oils. Both oils were sesquiterpenic in nature but with distinctly different odors. The most abundant components in the leaf oil were β -caryophyllene (21.3%) and β -elemene (12.5%), whereas the rhizomes yielded an oil rich in zerumbone (59.1%). The antibacterial activities of both oils against multidrug-resistant strains and food-borne pathogens were evaluated by the disc diffusion assay and by determining their minimum inhibitory concentration (MIC) values. The leaf oil was inactive against all tested microorganisms, whereas the rhizome oil exhibited weak activity against *Escherichia coli*, *Salmonella enteritidis*, *Salmonella typhi*, *Salmonella typhimurium*, *Shigella flexneri*, *Klebsiella pneumoniae*, *Pseudomonas aeruginosa* and methicillin-resistant *Staphylococcus aureus* (MRSA).
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Materials testing and research

[Ultrasound-assisted emulsification microextraction coupled with gas chromatography–mass spectrometry using the Taguchi design method for bisphenol migration studies from thermal printer paper, toys and baby utensils](#)

Analytical and Bioanalytical Chemistry, **404**,
671-678 (2012)
Pilar Viñas *et al.*

Tags
HP-5ms UI, HP-WAX, 6890A, 5973, materials
testing and research

Abstract

Bisphenols were analyzed using Agilent J&W HP-5ms Ultra Inert and HP-WAX GC columns in an Agilent 6890A/5973 GC/MSD system. Published by Springer.

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