

GC-MS ANALYSIS OF THE ROOT EXTRACT OF MARIGOLD

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Marigold (*Tagetes*, sp) is well known for its nematicidal activity¹ and has been used as an intercrop in tea plantations in Sri Lanka for the control of nematodes.

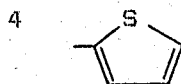
To study the allelopathy that exists between marigold and nematodes it is necessary to analyse the root exudate of marigold, in particular, for the presence of active components.

This paper describes a GC-MS method which enables the identification of active root constituents without resorting to tedious separation processes.

GC-MS analysis of the petroleum-ether extract of the root of *T. erecta* gave several peaks in the Total Ion Chromatogram. Four of these peaks were identified as thiophene derivatives (1-4) on the basis of their mass spectral data. These derivatives have been isolated previously from several *Tagetes*, sp and some of them have been shown to be active².



- 1 $-\text{C}\equiv\text{C}-\text{CH}=\text{CH}_2$
- 2 $-\text{C}\equiv\text{C}-\text{CH}_2\text{CH}_2\text{OH}$
- 3 $-\text{C}\equiv\text{C}-\text{CH}_2\text{CH}_2\text{OAc}$



References:

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