

A STUDY OF THE ESSENTIAL OIL OF PEPPER (PIPER NIGRUM L.)
BY COMBINED GC-MS ANALYSIS

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The essential oil of dried pepper was obtained by steam distillation^{1,2}. The oil was analysed by combined capillary GC and mass spectrometry. Of the 75 peaks recorded by gas chromatography 49 were identified with the aid of mass spectra library and relative retention times. The presence of compounds previously reported³ in the oil were confirmed while a number of other compounds such as α -cubene, β -gurjugene, γ -cadinene, α -nerolidol, eugenol, and murorol-T were identified. The oil was found to contain monoterpenes (67%) and sesquiterpenes (27%).

β -cary-ophyllene (17.8%), α -ylangene (2.05%), δ -elemene (1%), α -humulene (0.9%), and murrrol-T (0.9%) were found to be the major compounds in the sesquiterpene fraction. In addition small amounts of oxygenated terpenes and phenyl propanoides were also found to be present in the pepper oil.

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