

Chemical Composition of Turmeric Oil – A Byproduct from Turmeric Oleoresin Industry and Its Inhibitory Activity against Different Fungi

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Curcumin, the yellow coloring pigment of turmeric is produced industrially from turmeric oleoresin. The mother liquor after isolation of curcumin from oleoresin known as curcumin removed turmeric oleoresin (CRTO) was extracted three times with *n*-hexane at room temperature for 30 min to obtain turmeric oil. The turmeric oil was subjected to fractional distillation under vacuum to get two fractions. These fractions were tested for antifungal activity against *Aspergillus flavus*, *A. parasiticus*, *Fusarium moniliforme* and *Penicillium digitatum* by spore germination method. Fraction II was found to be more active. The chemical constituents of turmeric oil, fraction I and fraction II were determined by GC and identified by GC-MS. Aromatic turmerone, turmerone and curlone were major compounds present in fraction II along with other oxygenated compounds.