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# ISOLATION, THERMAL REACTION AND APPLICATION OF CURCUMIN

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**T**urmeric belongs to the Ginger Family. It has revealed numerous medical studies about the importance of turmeric in the treatment of a large number of illnesses beginning of cancers, leading to Alzheimer disease. This study investigates the best methods to isolate, purify and identify the chemical composition and the important biological activity of turmeric. The turmeric was bought from market. The plant used in research was classified as Turmeric (*Curcuma longa L*). The percentage of moisture in the dried samples was assessed. The results showed that the moisture content of turmeric tubers was 12%. Various compounds of dry turmeric rhizomes were extracted by ethanol, GC-MS analysis was performed for this extract which showed the presence of a large number of compounds belonging to different types of terpenes and aromatic compounds. The largest component of these compounds was turomene (19.0%), zingiberen (17.0%) and curcumin (20%). Isolation of curcumin from ethanolic extract was done. Curcumin epoxide was synthesized by using mcpba thermally. Antifungal activity of the new compound curcumin epoxide was studied against the fungi (*Candida albican*, *Aspergillus parasiticus*, *Fusarium proleferatum*, *Penicillium verrucosum* and *Aspergillus niger*) and the results were highly positive.

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## Biography

Manal Y sameeh has completed her PhD from King Abdulziz University and Postdoctoral studies from Umm Al-Quara University. She is the Head of Chemistry Department. She has published more than ten papers in reputed journals and has been serving as an Editorial Board Member of reputed.

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