“Analysis of *Chenopodium album* from Iraq using chromatographic technique”

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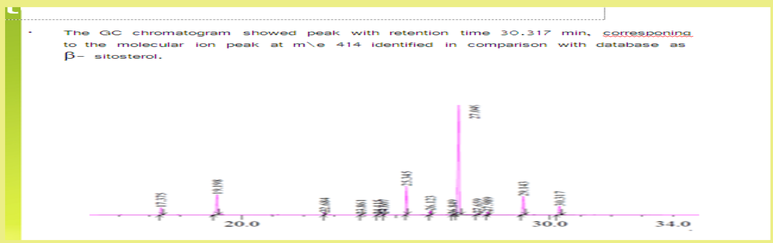
Chenopodium album **is a fast-growing shrub native of Western Asia and Europe. It is a common weed during summer and winter in the field of wheat, barley and mustard. The common name is goose feet refer to the shape of the leaves, the Latin species name album means white which alludes to the waxy covering on the plant.**

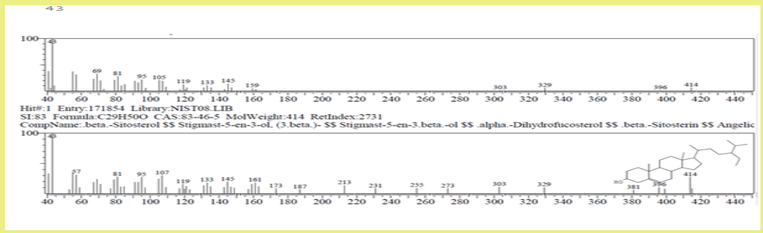
Preliminary phytochemical screening reveal the presence of flavonoids, terpenes and alkaloids

The aerial parts (stems and leaves) of C. album were collected from area Al-Yousifiya in Baghdad and identified by the national herbarium in Baghdad.The plant material was collect during March and dried at room temperature in the shade, then grinded as powder and weighed.

Extraction of terpene

dried plant aerial part was extracted with hexane by soxhlet apparatus. Hexane extract was analyzed for the presence of terpenes using TLC with spray reagent and confirmed by GC-MS analysis.

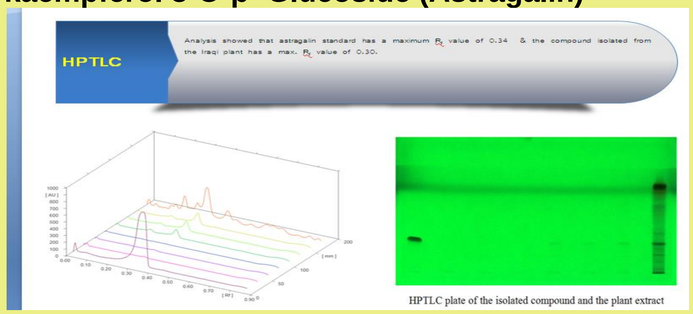




The sereach for lignans was performed on defatted plant which was extracted with acetone -water, the concentrated extract was analyzed for the presence of lignans using TLC with spray reagent and analyzed by GC-MS instruement. Although TLC reveal the prsence of lignan but it could not seen by GC/MS analysis as it reported in the litarature.

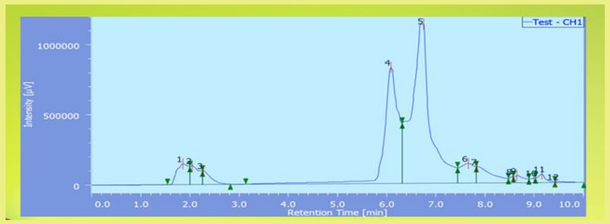
Astragalin is one of the major flavonoid glycosides found in a variety of plants. Astragalin is receiving increasing attention due to its various health benefits and biological activities, including antioxidant, anthelmintic, anti-inflammatory, anti- HIV, and anti-allergic effects. HPTLC analysis confirmed the prsence of this compound in the plant as compare with standard

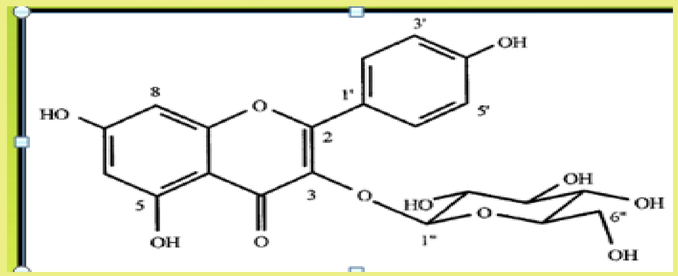
Then we isolated the compound was identified as kaempferol 3-O-β- Glucoside (Astragalin)



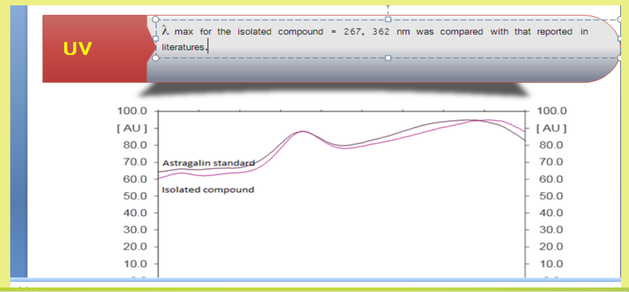
HPTLC plate of the isolated compound and the plant extract

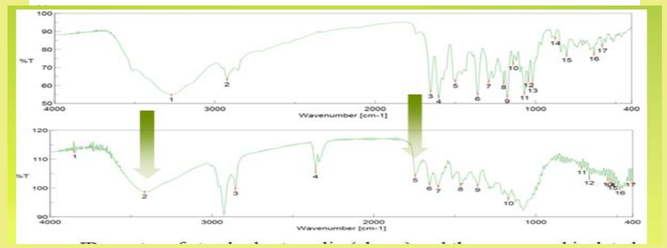
HPLC chromatogram for astragalin

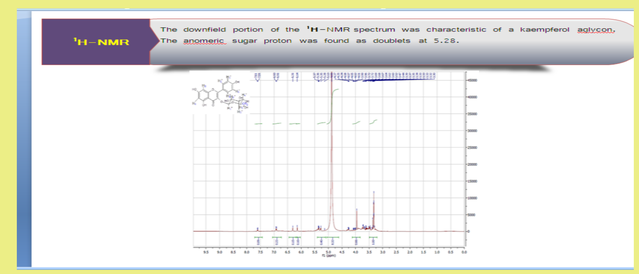




The structure was confirmed using UV, IR and NMR spectroscopy







Recommendations

Quantitative analysis should be performed to estimate the amout of astragalin and sitosterol found in the plant and compare it with that reported in the literature.

Thank you