

## عنوان مقاله:

GC-MS Analysis of phytochemicals and antioxidant, antimicrobial activities of aerial parts of *Stachys turcomanica*

## محل انتشار:

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## خلاصه مقاله:

The aim of this study was to investigate the *Stachys turcomanica* phytochemical compounds, antimicrobial and antioxidant activity of methanolic extract. The volatile constituents from the aerial parts of *Stachys turcomanica* growing wild in Iran were obtained by hydrodistillation and analyzed by GC and GC-MS. In the GC-MS analysis, Forty-six components representing 81.1% of the oil were identified. The main constituents the oil were 1-octen-3-ol (13.4%),  $\beta$ -pinene (7.9%),  $\alpha$ -pinene (5.6%),  $\alpha$ -bisabolol(4.4%), ar-curcumene(4.0%) and  $\beta$ -myrcene(3.7%). The phytochemical analysis revealed the presence of alkaloids, flavonoids and terpenoid in varying concentration. The antioxidant activity of aerial parts of methanolic extract was studied in vitro by 2,2'-diphenylpicrylhydrazyl (DPPH) radical-scavenging activity. The methanolic extract of *Stachys turcomanica* leaves exhibited a maximum DPPH scavenging activity of  $(81.61 \pm 0.78) \%$  at 10mg/mL followed by aerial parts of plant. Whereas for BHT (standard) was found to be  $(94.79 \pm 0.75) \%$  at the same concentration. Methanol solvent to screen the antimicrobial activity selected phytopathogens by agar diffusion method. The maximum antibacterial (phytopathogene) activities were observed on *Xanthomonas campestris* pv. *Campestris*, *Agrobacterium* sp. and *Pseudomonas viridiflava*.

## کلمات کلیدی:

*Stachys turcomanica*, phytochemical, hydrodistillation, methanolic extracts, antimicrobial and antioxidant activity

## لینک ثابت مقاله در پایگاه سیویلیکا:

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