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**GC-SM analysis composition and antibacterial activity of *Cucurbita pepo* (Pumpkin) seeds harvested in Western Algeria**

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**T**raditional medicine became an alternative avoiding chemicals' side effects. Currently, research is focused on the natural substances to protect environment. *Cucurbita pepo* seeds oil has antioxidant and antibacterial properties. This study aimed to determine composition of *C. pepo* seeds oil and assessing its antibacterial effect. The yield of oil extraction was 26.86 %. Composition analysis was carried out by gas chromatography-Mass spectrometry (GC-MS). *C. pepo* seeds oil extract was tested on bacterial growth of *Escherichia coli*, *Staphylococcus aureus*, *Klebsiella pneumonia* and *Pseudomonas aerogenosa*. GC-MS analysis showed saturated fatty acids (palmitic acid 13.1 % and myristic acid 8.8 %), unsaturated fatty acids (linoleic acid 45 % and oleic acid 19.6 %) and sterols ( $\beta$ -sistosterol 47 %, stigmasterol 23.6 % and campesterol 21.5%). *C. pepo* seeds oil extracts, used at different diluted concentrations (6.25, 1.56 and 0.19 mg/mL), showed high antibacterial activities against *E. coli*, *S. aureus* and *K. pneumonia* with zones of inhibition (25, 23 and 17 mm), (21, 20 and 15 mm) and (17,15 and 15 mm) respectively but *P. aerogenosa* was slightly sensitive (10, 10 and 10 mm). Minimum inhibitory concentration (MIC) of *C. pepo* seeds oil extracts were 0.012 mg/mL (*E. coli* and *S. aureus*), 1.56 mg/

mL (*P. aerogenosa*) and 0.19 mg/mL (*K. pneumonia*) whereas commercial pumpkin seeds oil's MIC were 6.25 mg/mL (*P. aerogenosa*) and 1.56 mg/mL (*K. pneumonia*). The *C. pepo* seeds oil extract could be used as bio herbicides replacing chemicals known for their high toxicity on the environment.



**Biography**

Abdelkrim Berroukche is the professor in biology department, SAIDA University, Algeria. He received PhD in cell biology, nutrition and oncology from SIDI-BEL-ABBES University, Algeria. He has published more than 30 papers in reputed journals and has been serving as an Editorial Board Member in different journals.

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