**Isolate anthocyanin pigment from Iraqi Hawthorn *(Crataegusoxyacantha L.)*peels and Study activity it as Antimicrobial &Antioxidant**

***Fatima SaiwanSabah***

**Chemistry department ,collage of science ,University of Basra**

**Abstract:**

plants are known as sources of potent antimicrobial and antioxadant compounds including anthocyanin.They are colored water-soluble pigments belonging to the phenolic group.The pigments are in glycosylated forms.

Anthocyanins responsible for the colors, red, purple, and blue.They possess antioxidative and antimicrobial activities, improve visual and neurological health, and protect against various non-communicable diseases.

The aim of this work was to isolated anthocyanin compound from red peels hawthorn (*Crataegusoxyacantha L.)*, then number of preliminary qualitative chemical tests were carried out on this compound . The FTIR and uv-visible spectroscopic data of isolated compound was run for it contain aromatic ring ,O-Hgroup and keton bound .The possible antibacterial activity of was assayed against the bacteria, *Staphylococcus aureus ,Escherichia coli* and fungi(*Candida tropicalis* ). The results revealed that compound exhibited antibacterial activity against all the bacteria tested indicating that the presence compound had broad spectrum antibiotic effect.The effect of the isolated anthocyanin compound on DNA human and cellular toxicity beings was studied and changes observed.

Isolated compound was used as an antioxidant as a result of containing hydroxyl groups known for its effectiveness in capturing free radicals.

The concentration of the element analyzed in red peels to hawthorn (*Crataegusoxyacantha L.)* and gave results as follows :Fe>Zn>Cu.