

THE EFFECT OF POMEGRANATE PEEL EXTRACT ON INHIBITION GROWTH OF SOME MICROORGANISMS AND OXIDATION OF VEGETABLES OIL .

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ABSTRACT

Peel of pomegranate was extracted by solution of ethylacetate , cold and hot ethylalcohol , acetone and water for four hours by Soxhlet apparatus , and then dried , then these extracts were used to determine their ability to inhibit some bacteria like *Escherichia coli* , *Bacillus subtilis* and *Staphylococcus aureus* , as well as to prevent the oxidation of vegetable oils . Extract by ethylacetate at concentration of 80 mg/ml showed best inhibition toward the test bacteria followed by hot and cold alcohol , acetone and water extracts as inhibition zones were 28 ,28, and 27 mm for the above test bacteria respectively , the same extract was the best to prevent oxidation of vegetable oils as TBA% was 8.3 , 8.4 , 8.4 , 8.4 and 5.2 % for extracts by hot and cold alcohol , acetone , water and control treatment respectively during storage period . These results declared that the extract of pomegranate can be used as a good preservative agent in food industry as it has good inhibition against undesirable microorganisms and can prevent oil oxidation .