

*

Bacillus subtilis , Escherichia coli , Staphylococcus aureus

	(F1)	(WA)	(AC)	(MC)	(MH)	
	(27 28 28)				/	80
			(Thio Barbituric Acid) TBA			
	/		8.3	/		5.2
15.2	8.4		/		8.4	/
		/	8.4			/

(1998 Diplock)
(1990 Namiki)

Lycopene β-Carotene E C

(1996 Ben Nasr)
Pelargonidin Anthocyanine
Ellagic Gallic

. 2010 / 11 / 28

. 2011 / 4 / 24

(2003) Kaempferol	(1981) Negi ; 2006	Egan) Alireza)	Luteolin Quercetin Li)	.(2005	
					- 1
					- 2
					- 3
					- 4
					- 5
					- 6
					- 7
					- 8
					- 9

◦ 40

50 7
15
-9

. (Blank)
:
2 50

-10
Egan

TBA NO. : (TBA NO.)
TBA 5 5 (1981)
35
: TBA 538

TBA NO.(mg malonaldehyde/kg sample)=Absorbance×7.8

3 2 1 :

3 2 1

(2001) Yong-Suk

S.auerus

. 1

()			/
80	50	20	
19	14	0	MC
25	20	15	MH
25	12	0	AC
22	12	0	WA
27	24	0	FL

.(AC)

.(MH)

(MC)

.(FL)

.(WA)

2 1 (1)
 (27 24) 3
 20) / (80 50)
 (25 12) (19 14) (25)
 (2005) Bragan (22 12)
S.auerus
 ; 2005 Li)
B. subtilis (2002 Poyrozoglu ; 2003 Negi ;
 (3) (2) *S.aureus* / 20
 (20 15) / (80 50)
 (28 25) / (80 50)
 Aglcones . (2000)

.B.subtilis

. 2

()			/
80	50	20	
0	0	0	
20	15	0	MC
0	0	0	MH
0	0	0	AC
0	0	0	WA
28	25	0	FL

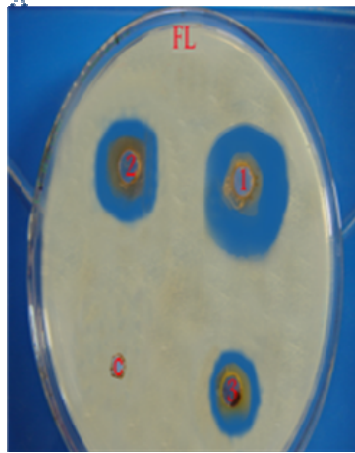
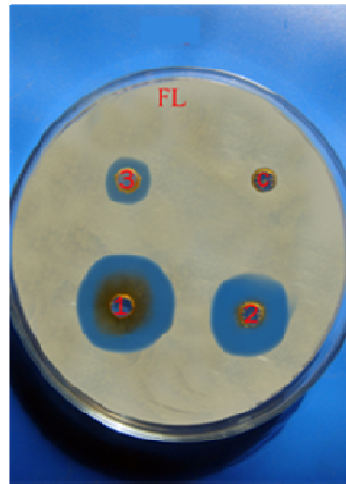
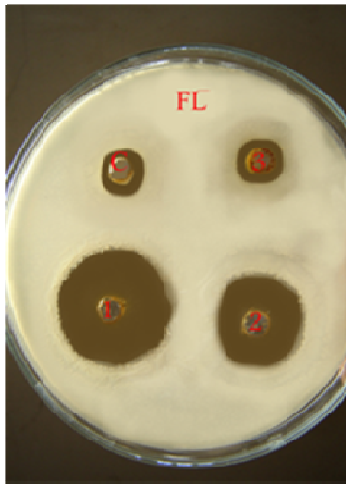
,(AC)

,(MH)

(MC)

(FL)

, (WA)



B

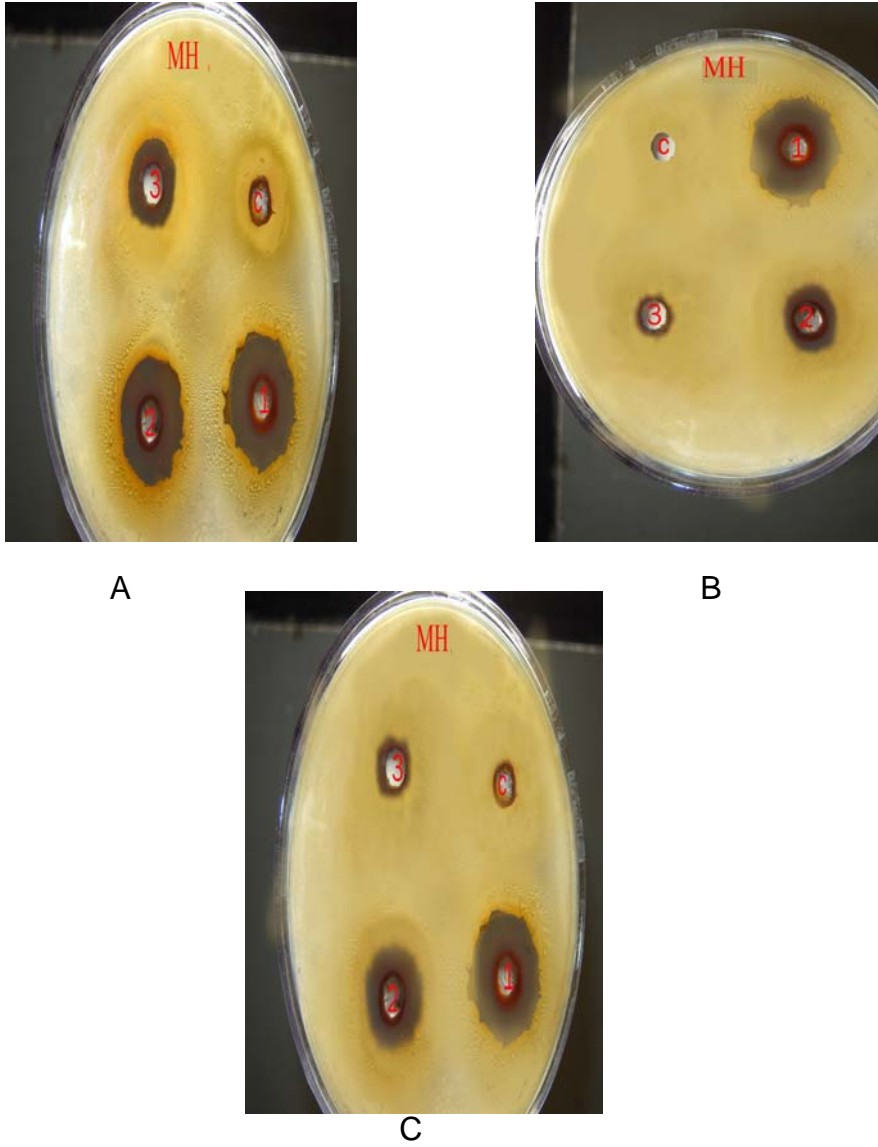
C

شكل 1 . التأثير التثبيطي للمستخلص الفلافونويدي لفنوس الرمان تجاه بكتريا الأختار

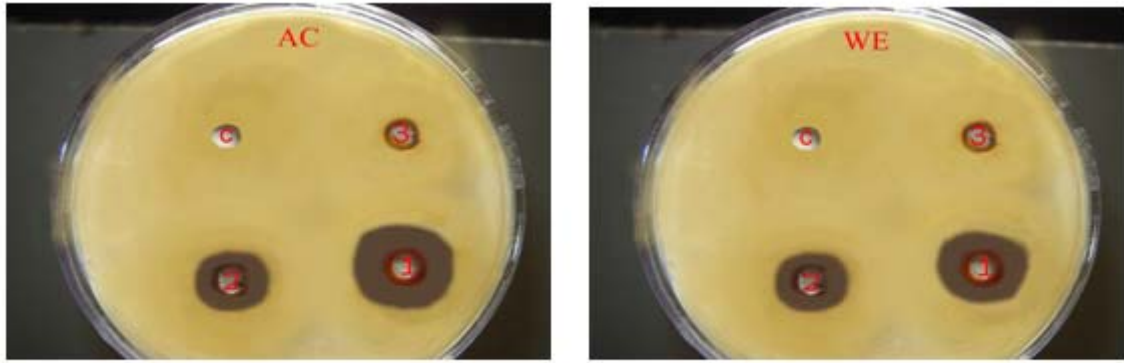
A التأثير التثبيطي للمستخلص تجاه بكتريا *S. subtilis*

B التأثير التثبيطي للمستخلص تجاه بكتريا *E.coli*

C التأثير التثبيطي للمستخلص تجاه بكتريا *S.aureus*



شكل 2. التأثير التثبيطي لمستخلص الميثانول الحار تجاه بكتريا الاختبار
A التأثير التثبيطي للمستخلص تجاه بكتريا *S.aureus*
B التأثير التثبيطي للمستخلص تجاه بكتريا *E.coli*
C التأثير التثبيطي للمستخلص تجاه بكتريا *B.subtilis*



شكل 3. التأثير التثبيطي لمستخلص الأستون والمستخلص المائي لقشور الرمان تجاه بكتريا *S.aureus*

(50,20) *E.coli* (3)
 / 50 /
 / 80 (20) (10)
 (80,50) (28,25)
 . (1989 Toda; 2006)

. *E.coli*

. 3

()			/
80	50	20	
0	0	0	MC
20	0	0	MH
0	0	0	AC
0	0	0	WA
28	25	0	FL

مستخلص الميثانول الطريقة الباردة (MC) مستخلص الميثانول الطريقة الحارة (MH)، مستخلص الأستون (C) مستخلص الماء (WA) ، المستخلص الفلافونويدي (FL) .

:

(4)

15.2 TBA

TBA

/

TBA

(1981)

5.2

TBA

TBA

/

, Ames)

8.4 8.4 8.3)

TBA

(1983

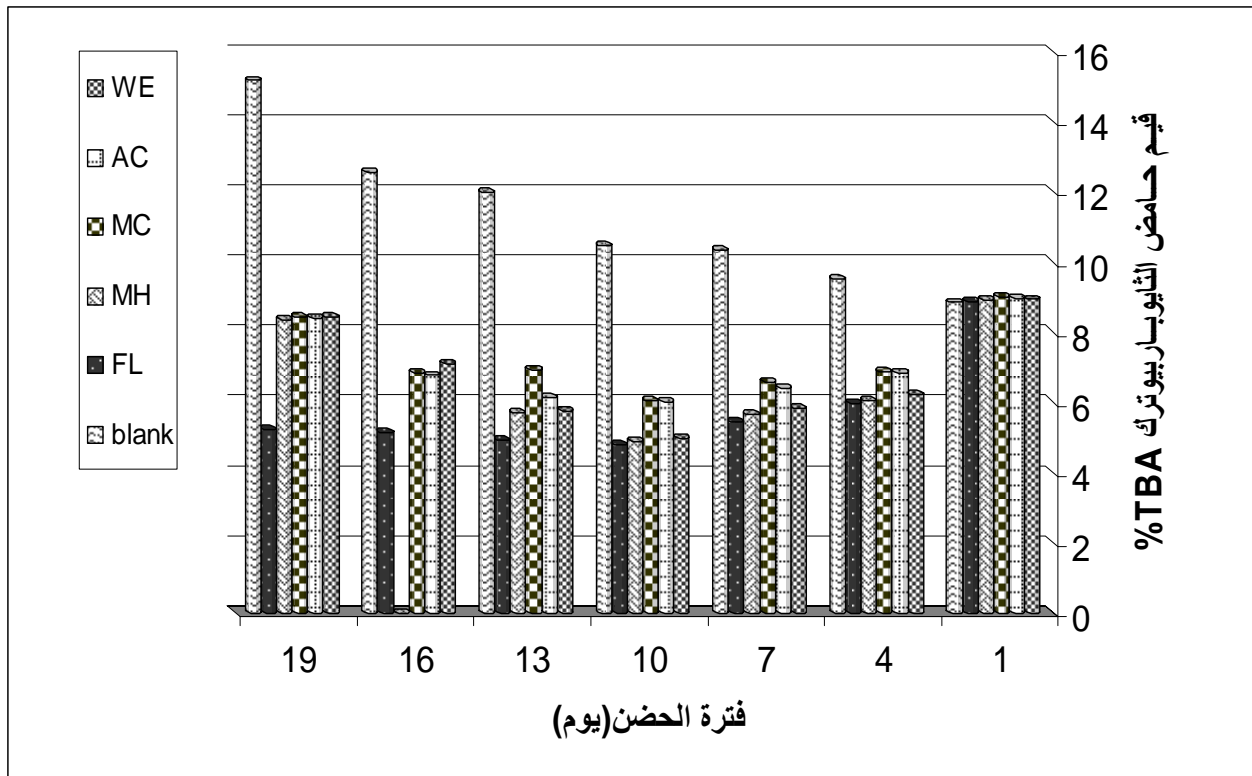
/

(8.4

(2003) Negi

(2000)

(2002)



,(AC)

,(MH)

(MC)

. blank

' (FL)

, (WA)

o 40

. 4

(5)

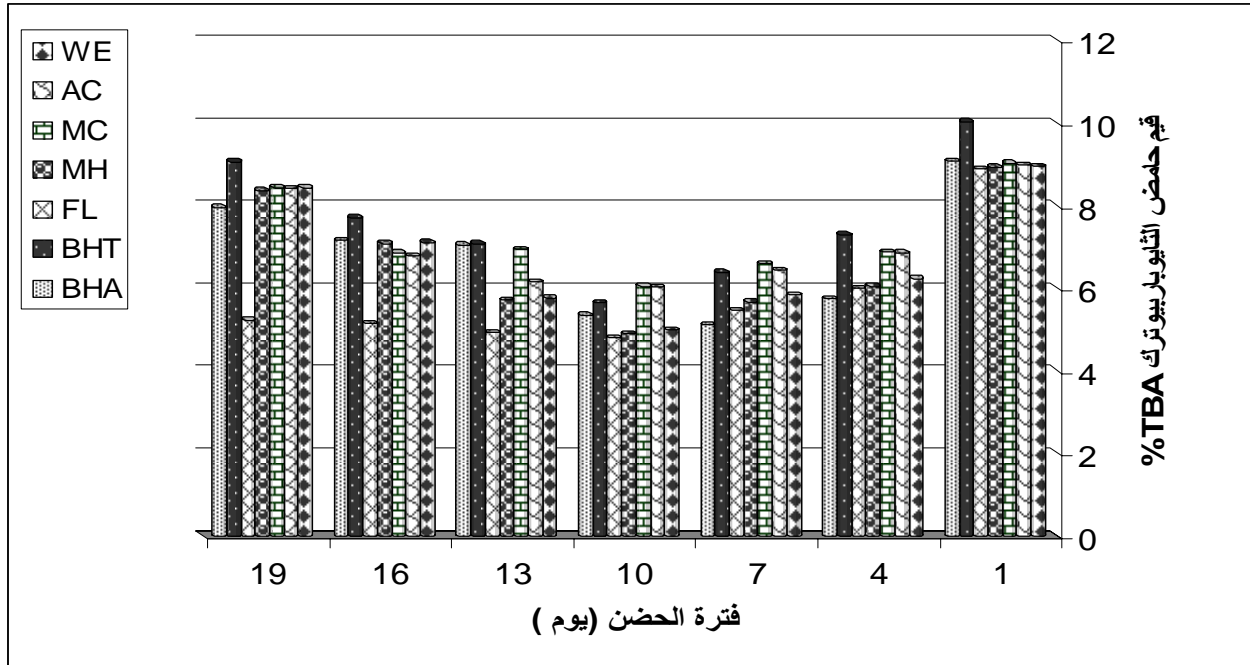
BHT

BHA

BHT BHA

(2006)

(2000)



(AC)

(MH)

(MC)

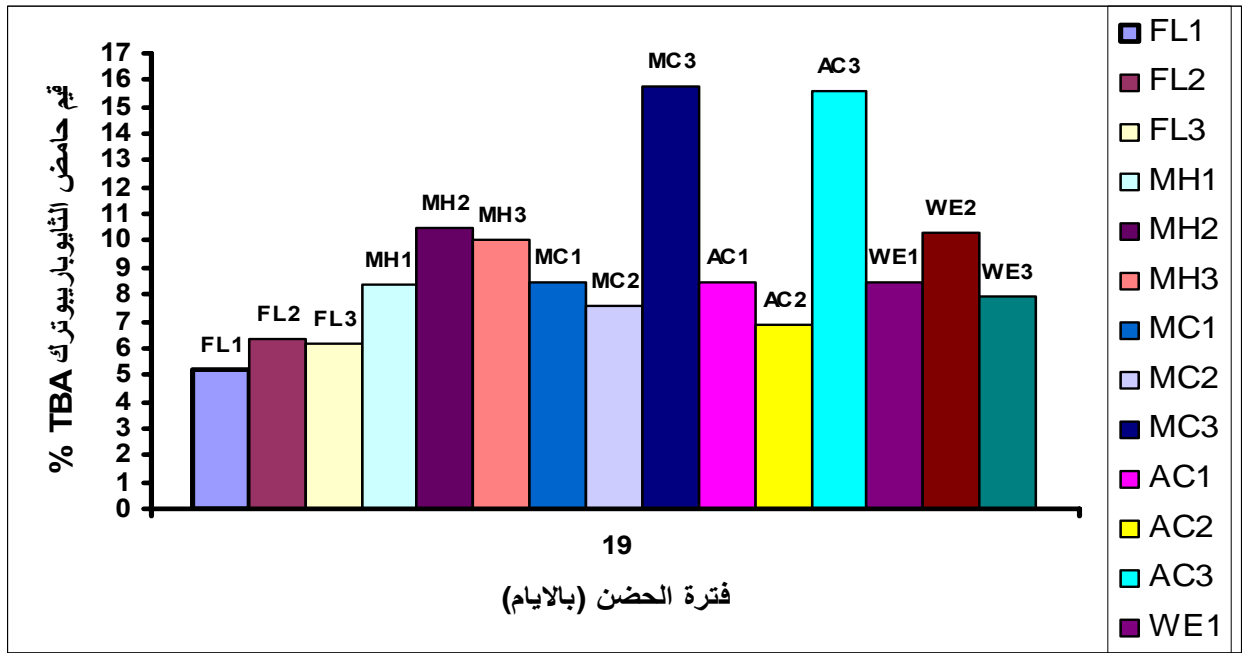
(BHA,BHT)

(FL)

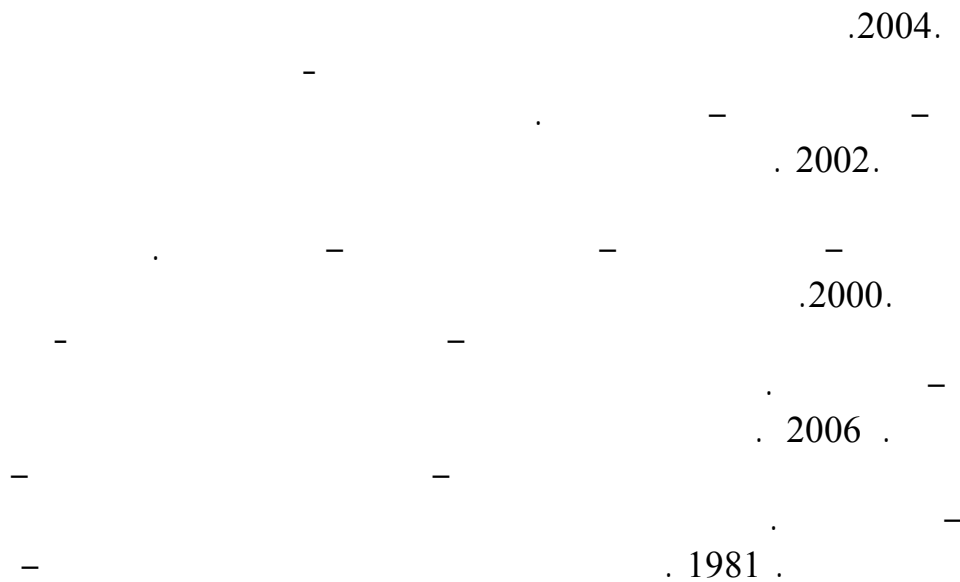
(WA)

5

TBA



((MH1,MH2,MH3) (FL1,FL2,FL3) (AC1,AC2,AC3) (WE1,WE2,WE3) MC1,MC2,MC3) TBA .6



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

Sabri,CH. Abood

Rukaibaa,A.Chechan

Ibtihaj,M.Hakeem

* Dept. of Food Science and Biotechnology - College of Agriculture – Univ. of Baghdad .

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 .