

()

(Ferula galbaniflua)

*

(// : // :)

(Ferula galbaniflua)

()

()

(HPLC)

()

() pH (°C)

pH

pH

HPLC

Ferula

Galbaniflua

Ferula Gumosa

(.)

/ °C

/ g/cm³

()

(.)

(Galbanum)

%

ء

%

%

%

()

()

...

()

()

(*Ferula galbaniflua*)

()

/ %

%

/ %

/ %

/ %

/

MERCK

()

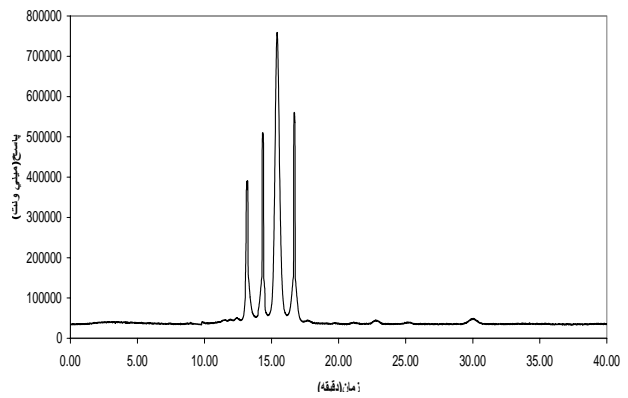
()

...
:
.
/ %
(Shimadzu UV 160)
/ % °C
() A.O.A.C
()
()
/
.
%
%
°C
%
%
()
()
()
pH (°C)
()
()

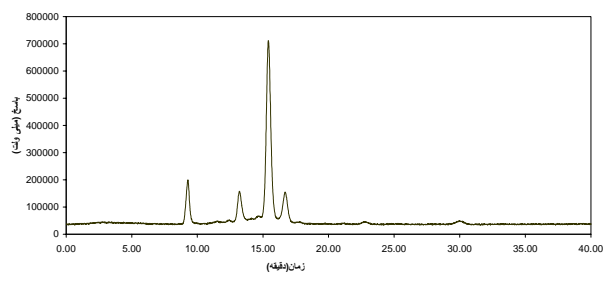
HPLC

(KNAUER) HPLC
(Length * ID: 300 * 8 EUROKAT H
IR mm
mg/100 ml)
(/ / /)
()
Yield(%) = $\frac{A}{B} \times 100$
A
() B
()
HPLC
HPLC
()
/ ml/min / N

°C



(



(

HPLC

: ()
 : ()
 :

()

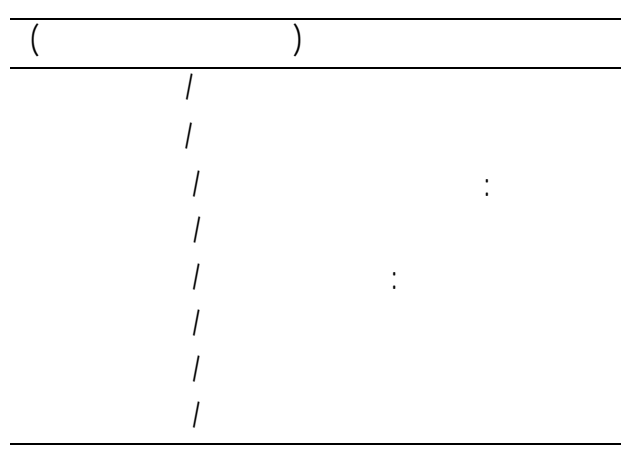
%

pH

MSTATC

EXCEL

HPLC

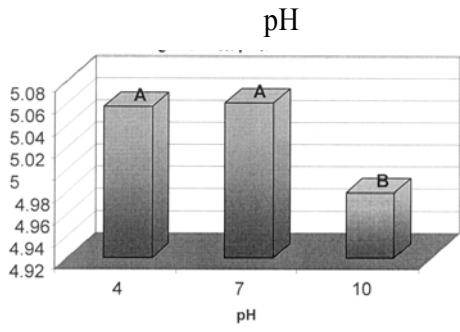


)

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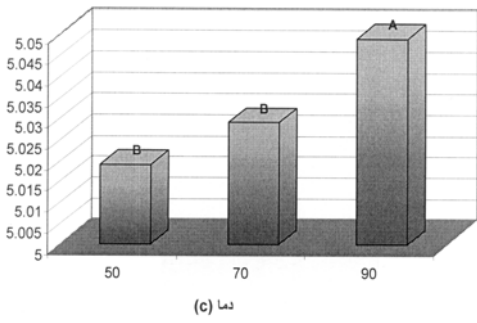
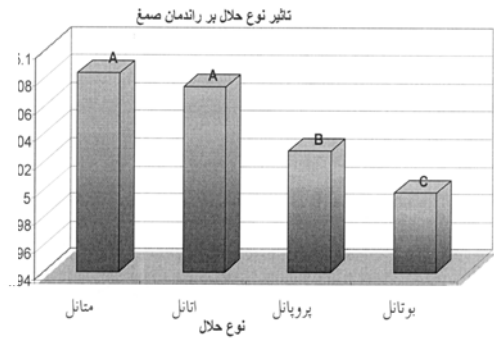
()

()



PH =

()



pH

%

pH

B A

pH

pH =

pH

pH

()

()

pH

%

pH

pH =

pH

%

B A

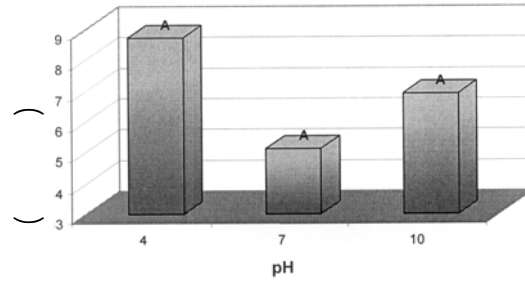
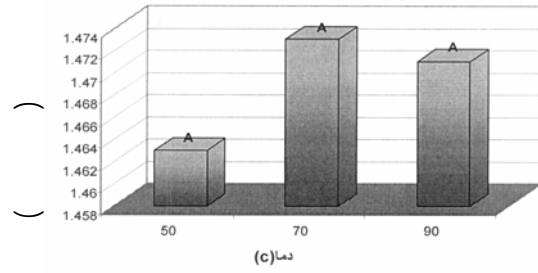
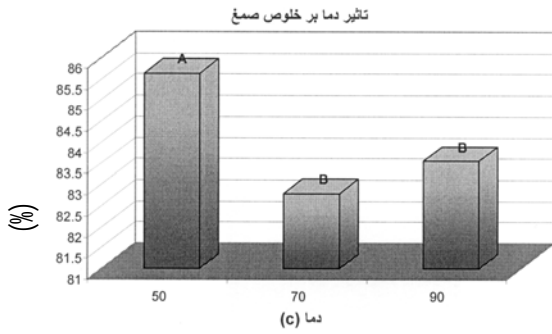
°C

°C

°C

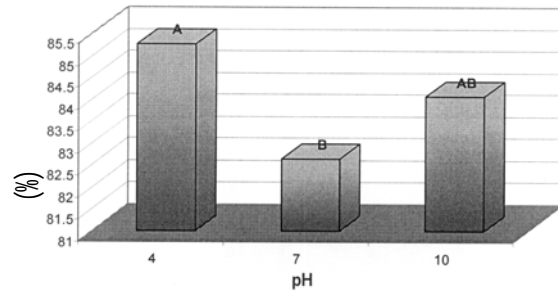
()

°C
()



PH

pH



PH

pH

pH=

%

°C

pH

B A

°C °C

REFERENCES

1. A.O.A.C.1984. Official Methods of Analysis Association of Analytical Chemists 14th ed. Washington DC, USA.

2. Aitchison, I. E. T. 1887. Some plants of Afghanistan and medicinal products. *American Journal of Pharmacology*. Vol. 59: 1-2.
3. Anderson, D.M.W. & M.C.L. Gill. 1975. The composition of Acacia gum exudates from species of the subseries Juliflorae. *Phytochemistry*. Vol. 14: 739-741.
4. Armisen, R. & F. Galatas. 2000. Extraction of Agar. In *handbook of hydrocolloids* (eds.) Phillips G.O. and P.A. Williams, CRC press Cambridge, England. p. 24.
5. Baker, E. G. 1986. Notes on a sample of galbanum from *Ferula Galbaniflua*. *Pharmaceutical Journal and Transactions*. 146-149.
6. Felter, H. W. & J. U. Lloyd. 1898. *King's American Dispensatory*. Galbanum.
7. Hicks, K.B., P.C. Lim & M.J. Haas. 1985. Analysis of uronic and aldonic acid, their lactones and related compounds by HPLC on cation exchange resins. *Journal of Chromatography A*. Vol. 319: 159-171.
8. Hough, L., J. K. N. Jones & W. H. Wadman. 1952. Some observations on constitution of gum Myrrh. *Journal of American Chemical Society*. Vol. 74: 790-796.
9. Howlett, M. D. D. 1980. Clouding agents for use in beverages. English Patent. No. 1 569 292.
10. Jessenne, M. G., L. Bezanger-Beaguesne, M. Pinkas & F. Trotin. Sur les gommés de deux gommés-resines *Bdellium* et *Galbanum*. 1974. *Plantes Medicinales. et Phytochimie*. Vol. VIII. (4): 241-249.
11. May, C.D. 2000. Production process of pectin. In *handbook of hydrocolloids* (eds.) Phillips G.O. and Williams, P.A. CRC Press Cambridge, England. p. 170.
12. Phillips G.O. & P. A. Williams. 2000. Properties of gum Arabic. In *handbook of hydrocolloids* (eds.) Phillips G.O. & P. A. Williams. CRC Press Cambridge, England. p. 164.
13. Safaian, N. & M. Shokri. 1993. Botanical and ecological study of species of the genus *Ferula* (medicinal plants) in Mazandaran province. *Acta Horticulture*. Vol. 333: 159-163.