

()

Citrus aurantium var. amara L.

(SFE)

*

(/ / : / / :)

(SF-CO2)

(SFE)

(Sludge)

SFE

) () ()
)« » () ()
(%)

HP-5

GC-MS

°C

) SFE

%

%

(%)

:

Citrus aurantium var. amara L.

Rutacea

Citrus

(.)

IR
% /

GC-MS

()

(/ / °C)

Citrus aurantium var. *amara* L.
Citrus Rutacea

) () ()
kg/cm² ()
rpm : ()
% ()

() SFE
() SFE

4. Winterization

-
1. Aroma
 2. Volatile Compounds
 3. Supercritical Fluid Extraction (SFE)

...

:

(%)

% / CO₂

.SFE

(SFE)

Suprex

Mps/225 Multipurpose System

() () () (V/V)

(CO₂)

)

(

)

(

(

)

(v/v%

)

»

()

()

(GC-

MS)

HP- \times 0.25mm \times) 0.25m HP-6890 GC

HP- Mass spectra 5MS (30m

5973

% ,

CO₂

°C

°C

°C

2. Couplé

1. Restrictor

I:

()

II

() ()

III

)

(

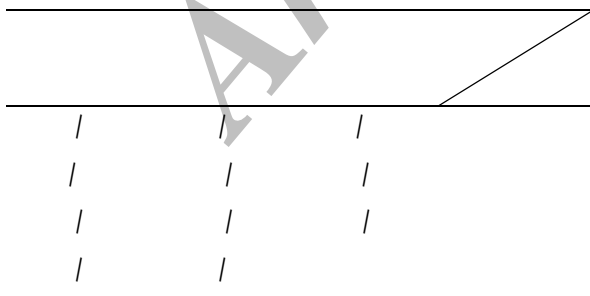
%

SFE

SFE

()

SFE



()

()

)

(

/

()

:

()

...

:

)

()

.(

SFE

% /

% /

% /

SFE

% /

SFE

SFE

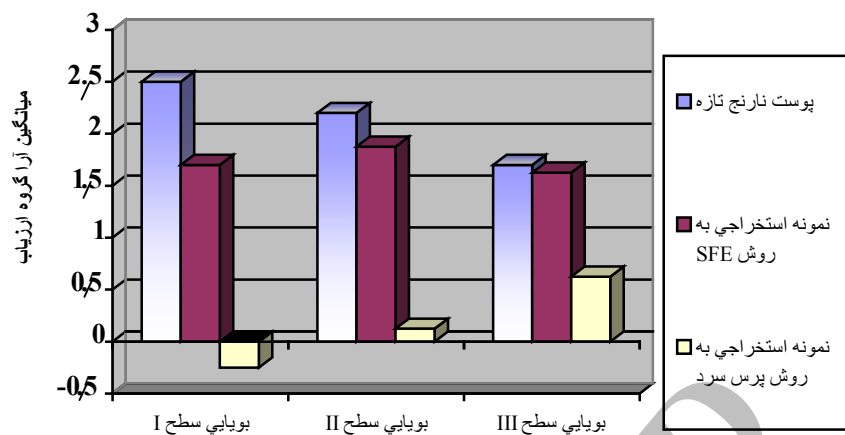
% ,

()

() SFE

SFE

SFE										
% ,	% ,		% ,	% ,	% .	% .		% .		Limmonene
			% ,	% ,				% ,		Carveol
			% ,					% ,		α -pinene
% ,			% ,							Benzene
				% ,	% ,					Hexadecanoic acid
					% ,					Octadecanoic acid
% ,					% ,					Terpinene
% ,	% ,	% ,		% ,	% ,	% ,	% ,	% ,		Terpineol
% ,		% ,		% ,	% ,	% ,	% ,	% ,		Linalool
			% /							Citronellal
		% ,								Myrecenol
% ,		% ,								Cedrn
	% ,									Comphen
% ,		% ,			% ,	% ,				Cineol
			% ,							Decanal
% ,	% ,	% ,	% ,	% ,	% ,	% ,	% ,	% ,	% ,	Unknown



SFE

()

SFE

SFE

SFE

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