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(Acipenser persicus)

(Shimazo – 14A)

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Onchorhyncus mykiss

Salmo salar

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() *A. naccarii*

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EPA (C20:5 ω -3)

DHA (C22:6 ω -3)

() A.gÜldenstaedti

(Flame FID : ()
: Ionization Detector)

Packed Columnm : / ()
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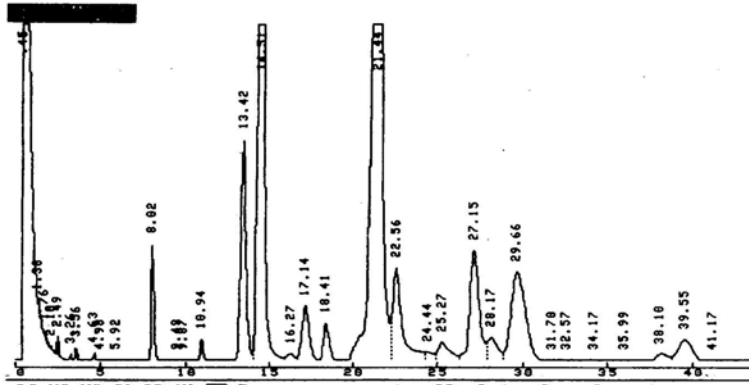
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C22:6	C20:5	C20:4	C18:3	C18:2	C18:1	C18:0	C16:1	C16:0	C14:0		
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PC MC MS SO PP MO E CH=1 REPORT No.=2 CHROMATOGRAM=1:CHRM1.C00 00/00/00 00:12:46

** CALCULATION REPORT **

CH	PKNO	TIME	AREA	HEIGHT	MK	IDNO	CONC	NAME
1	1	0.458	11343469	1260921	S E		54.8979	
	2	1.383	1265	392	T		0.0061	
	3	1.768	2282	550	T		0.011	
	4	2.1	581	132	T		0.0028	
	5	2.492	10901	1679	T		0.0528	
	6	3.265	4737	715			0.0229	
	7	3.567	13071	1465			0.0633	
	8	4.64	11398	1222			0.0552	
	9	4.99	2584	285			0.0125	
	10	5.926	3124	311			0.0151	
	11	8.025	161274	11582			0.7805	
	12	9.492	1940	132			0.0094	
	13	9.874	15970	768	V		0.0773	
	14	10.948	48294	2868			0.2337	
	15	13.424	526026	21248			2.5458	
	16	14.511	1922625	82123	V		9.3047	
	17	16.275	65653	1593	V		0.3177	
	18	17.142	235143	6060	V		1.138	
	19	18.415	157394	4387	V		0.7617	
	20	21.444	3319533	96130	V		16.0652	
	21	22.56	467531	9450	V		2.2627	
	22	24.442	66742	1924	V		0.323	
	23	25.279	179410	2780	V		0.8683	
	24	27.151	501885	11175	V		2.4289	
	25	28.171	151991	3266	V		0.7356	
	26	29.667	958585	9305	SV		4.6392	
	27	31.708	1334	53	T		0.0065	
	28	32.575	2262	72	TV		0.0109	
	29	34.175	1527	46	T		0.0074	
	30	35.992	5246	110	T		0.0254	
	31	38.108	145373	1986	V		0.7035	
	32	39.556	287921	3290	V		1.3934	
	33	41.175	45785	1209	V		0.2216	
TOTAL			20662832	1539225			100	

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(*Acipenser stellatus*

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(*Liza aurata*)

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Variation of Fatty Acids Composition in Fresh and Frozen Persian Sturgeon Tissues *Acipenser persicus*

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Abstract

In this research work the identification of fatty acids from fresh and frozen tissues of Persian sturgeon (*Acipenser persicus*) and their changes during cold storage after extraction and methylation of the lipids by gas chromatography (Model: Shimadzo-14 Japan) was performed. The results showed, that the amounts of unsaturated fatty acids in fresh and frozen samples were 88.95% and 79.63% respectively. In fresh tissues the percentage of the Oleic, Linoleic, Alpha-Linolenic, Icosapentanoic and Docosahexanoic were 45.11%, 3.59%, 2.80%, 4.75% and 2.21% accordingly. Among these unsaturated fatty acids the amount of Omega-3 was 11.04% after twelve month of cold storage, there was a general reduction in lipid content in both fresh and frozen samples. This reduction also can be seen in some of the fatty acids such as oleic and alphalinolenic acid. These fatty acids decreased from 45.11 to 40.27 and 2.80 to 1.65% respectively. Also in the fresh samples the between omega-3 to omega-6 fatty acids found to be 1.64. These results were subjected to the test of Tukay and variance analysis. The results were significant at a level of 95%. Thus one can conclude that the cold storage of Persian sturgeon should not exceed 12 months.

Keywords: Fatty Acids, Freezing, Persian sturgeon

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