

SUPPLEMENTARY MATERIAL FOR THE MANUSCRIPT

Fast profiling of natural pigments in different *Spirulina (Arthrospira Platensis)* dietary supplements by DI-FT-ICR and evaluation of their antioxidant potential by pre-column DPPH-UHPLC assay.

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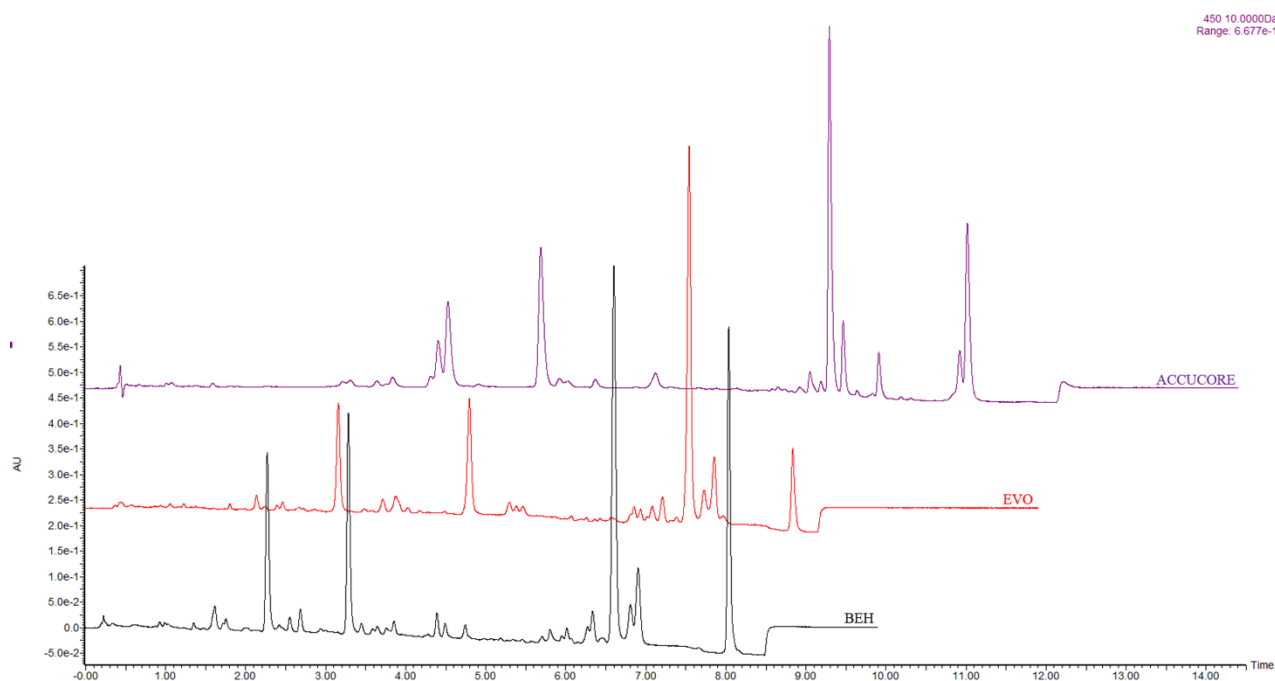


Figure S1: Comparison of UHPLC separation of Spirulina extract with three different columns: **(black)**: BEH C18 50 × 2.1 mm, 1.7 μm, **(red)**: EVO C18 100 × 2.1 mm, 1.7 μm, **(purple)**: C30 100 × 2.1 mm, 2.6 μm

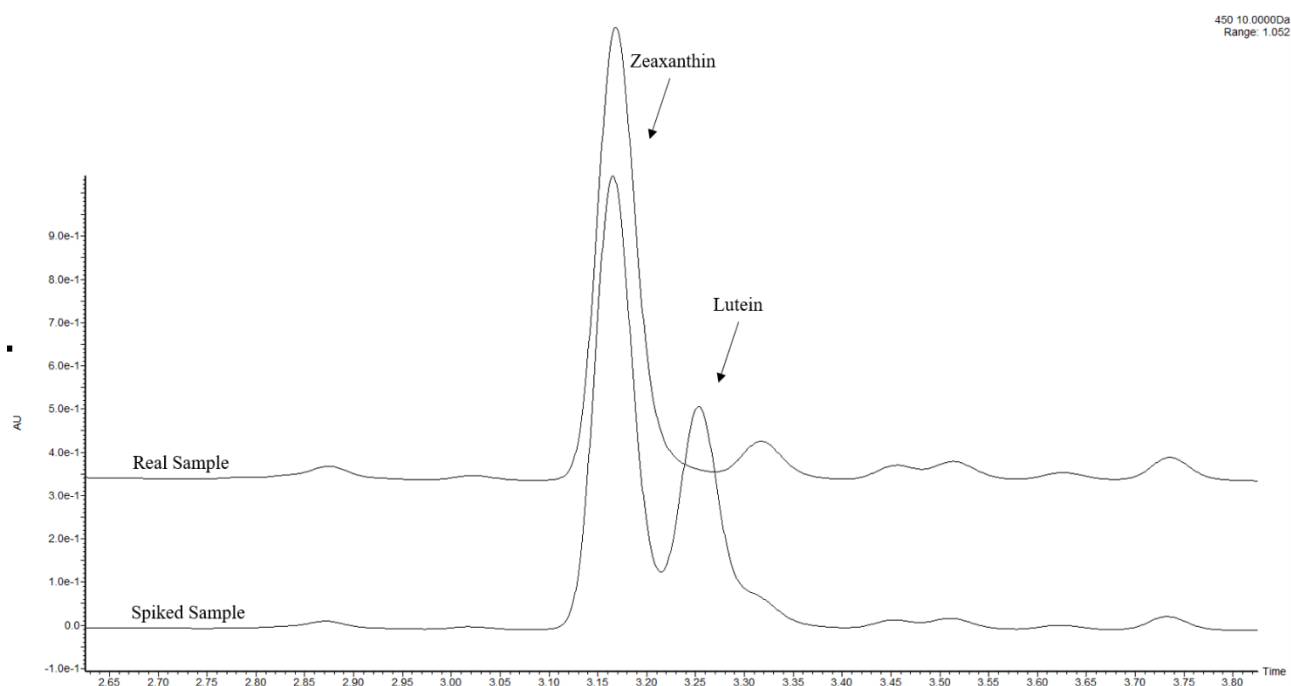
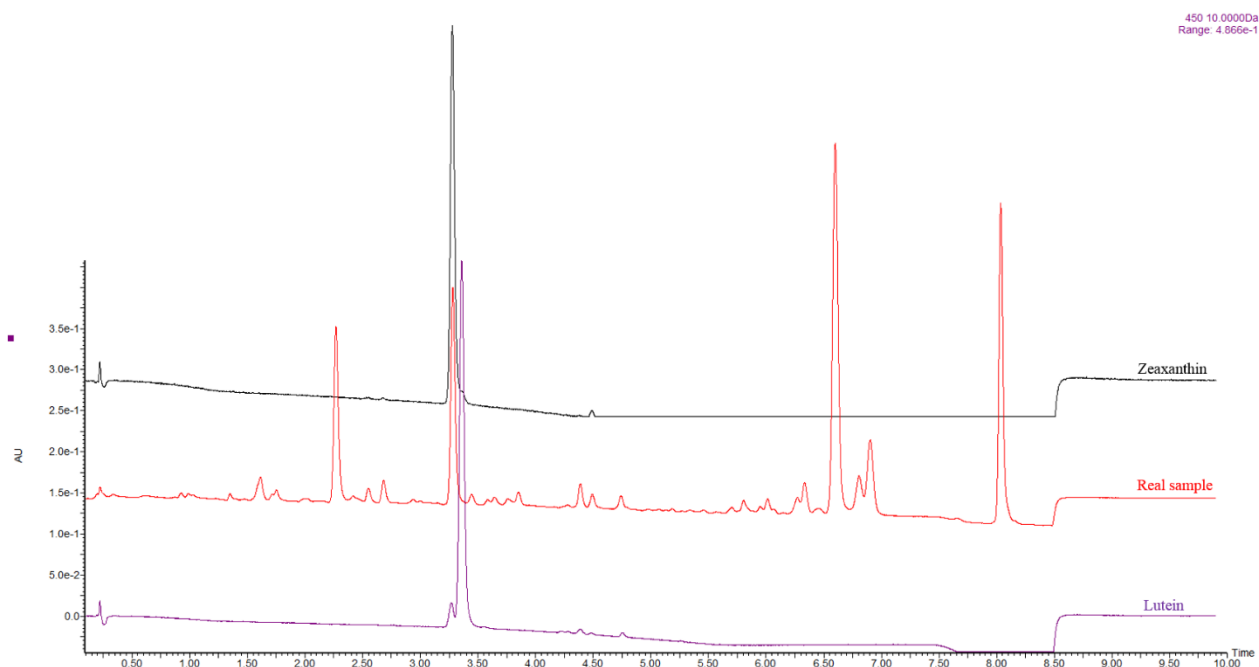


Figure S2: Comparison of real sample and standards of lutein and zeaxanthin

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		INTRADAY		INTERDAY	
Peak	Compounds	CV% Area	CV% Tr	CV% Area	CV% Tr
1	<i>Diadinoxanthin</i>	0.007	0.009	0.150	0.015
2	<i>Canthaxanthin</i>	0.035	0.005	0.124	0.022
3	<i>Diatoxanthin</i>	0.011	0.004	0.045	0.022
4	<i>Antheraxanthin</i>	0.007	0.004	0.155	0.028
5	<i>Zeaxanthin</i>	0.002	0.003	0.068	0.027
6	<i>Echinone</i>	0.014	0.002	0.047	0.024
7	<i>Chlorophyll b</i>	0.011	0.002	0.315	0.026
8	<i>Hydroxychlorophyll a</i>	0.008	0.001	0.361	0.026
9	<i>Chlorophyll a</i>	0.004	0.002	0.006	0.031
10	<i>Chlorophyll a isomer</i>	0.006	0.001	0.051	0.034
11	<i>Beta carotene</i>	0.006	0.001	0.019	0.019

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Table S1: Repeatability values for the UHPLC-PDA method

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Peak	Compounds	Dietary supplement powder		Lab made powder		Dietary supplement tablet	
		LOD µg/g	LOQ µg/g	LOD µg/g	LOQ µg/g	LOD µg/g	LOQ µg/g
1	<i>Diadinoxanthin</i>	2.96	9.85	5.33	17.77	1.51	5.02
2	<i>Canthaxanthin</i>	1.14	3.81	4.52	15.07	0.75	2.49
3	<i>Diatoxanthin</i>	8.05	26.84	42.57	141.90	12.40	41.33
4	<i>Antheraxanthin</i>	0.58	1.92	6.06	20.22	4.65	15.49
5	<i>Zeaxanthin</i>	11.03	36.76	34.76	115.87	8.53	28.45
6	<i>Echinone</i>	5.47	18.22	2.22	7.40	5.38	17.93
7	<i>Beta carotene</i>	44.72	149.08	10.75	35.85	15.23	50.77

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Table S2: LOD and LOQ values UHPLC-PDA method

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