

Purslane (*Portulaca oleracea* L.) seed oil as a valuable source of important phytonutrients: effect of the extraction method on the lipid composition

Journal *Discover Food*

Authors: Sabina Taneva¹ and Svetlana Momchilova^{1,2*}

¹ Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, Acad. George Bonchev Str., bl. 9, 1113 Sofia, BULGARIA

² Center of Competence “Sustainable utilization of bio-resources and waste of medicinal and aromatic plants for innovative bioactive products”, Acad. George Bonchev Str., bl. 9, 1113 Sofia, BULGARIA

*Corresponding author: svetlana.momchilova@orgchm.bas.bg

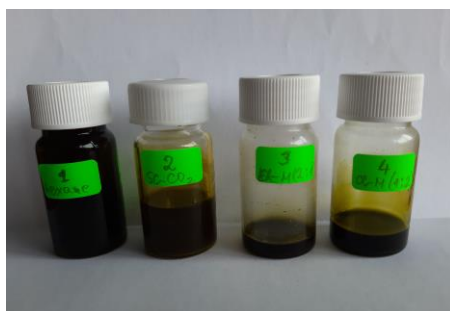
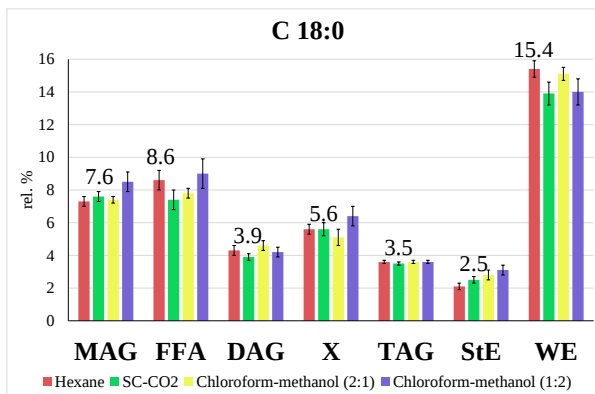
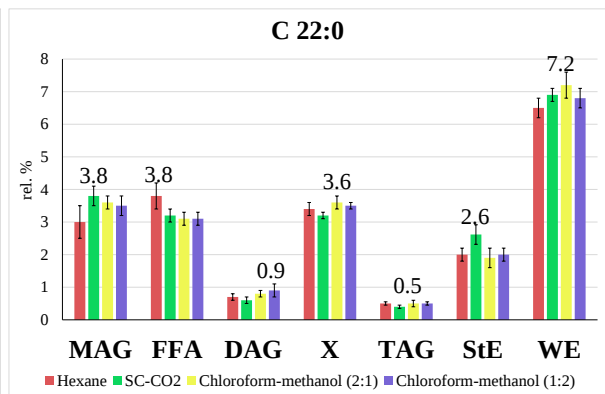


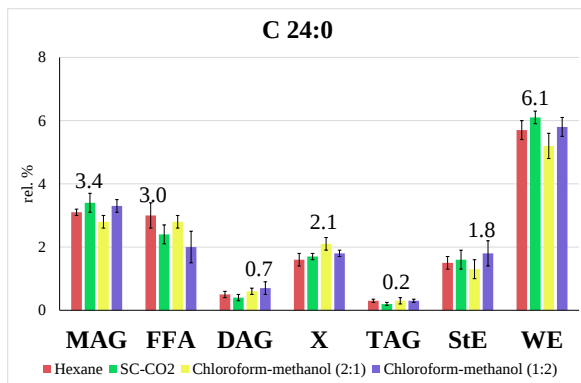
Fig S1 Purslane seed oil extracted by different methods: 1 – Soxhlet extraction with hexane; 2 – Super critical CO₂ extraction; 3 – extraction with chloroform-methanol (2:1, v/v); 4 - extraction with chloroform-methanol (1:2, v/v).



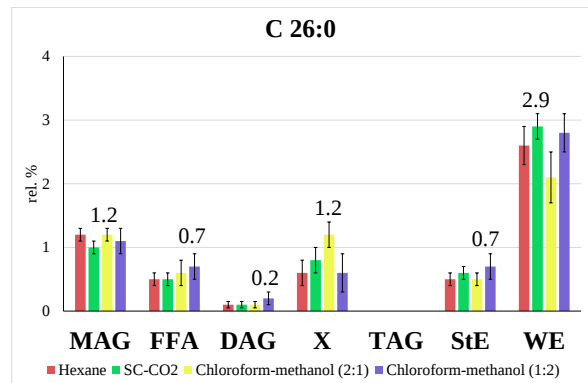
(a)



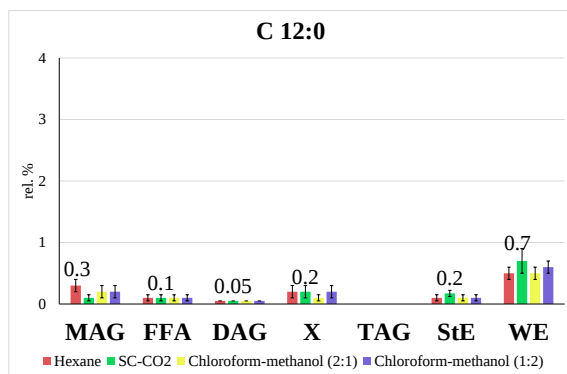
(b)



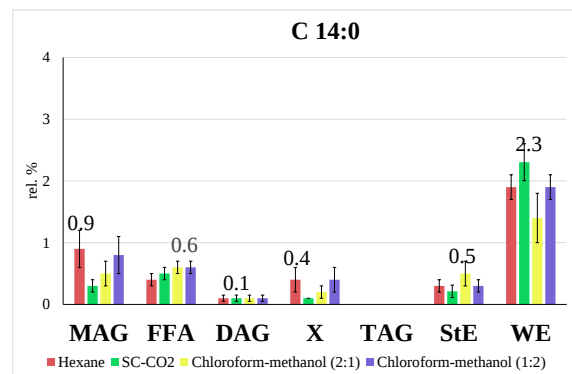
(c)



(d)



(e)



(f)

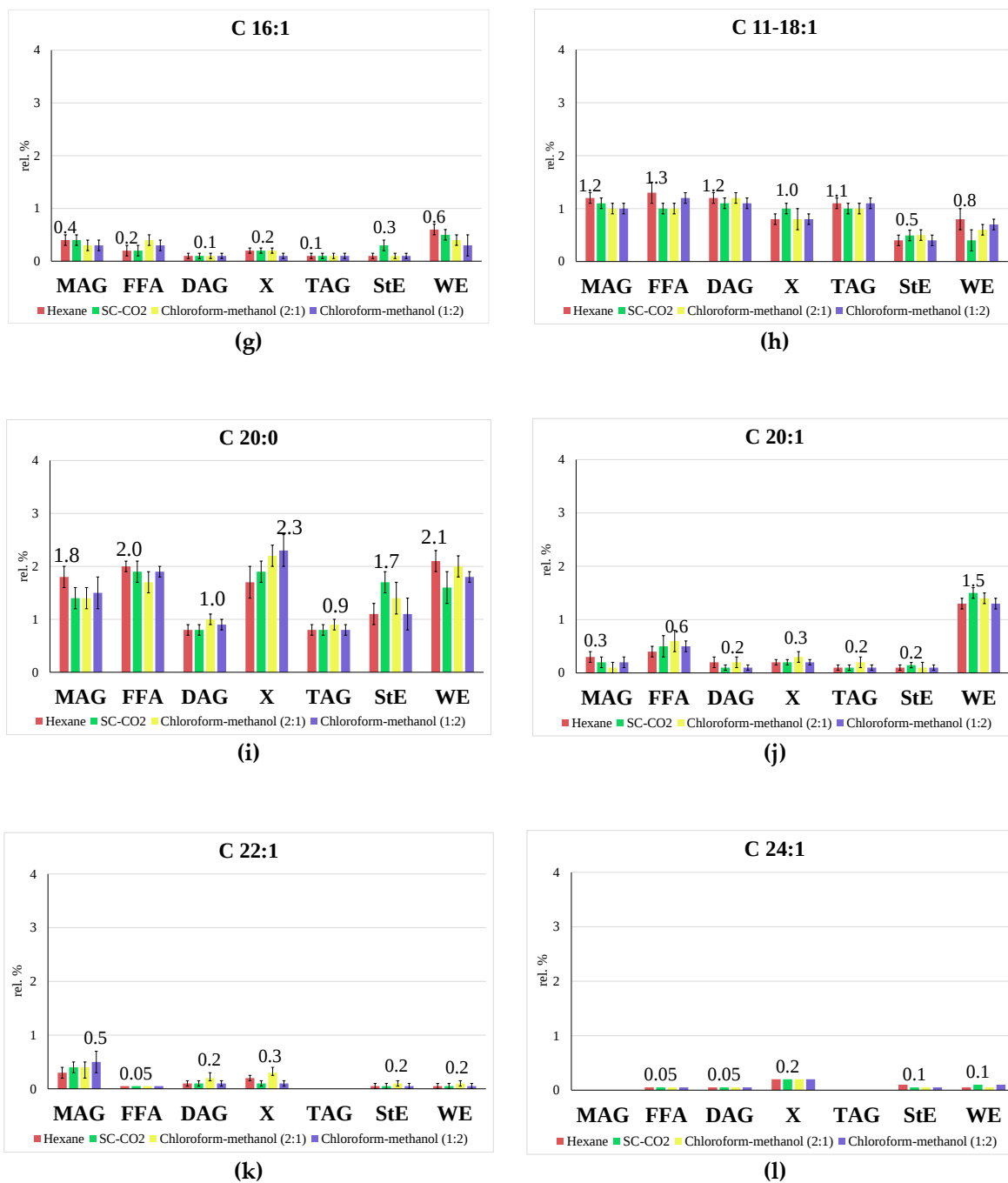
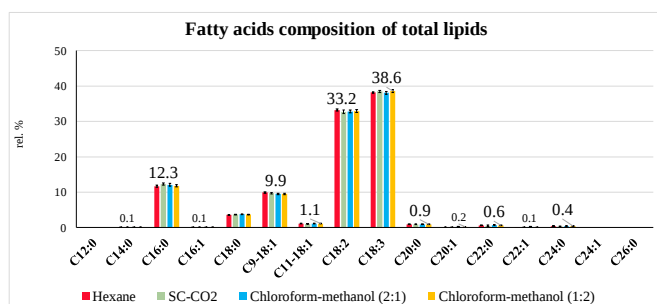
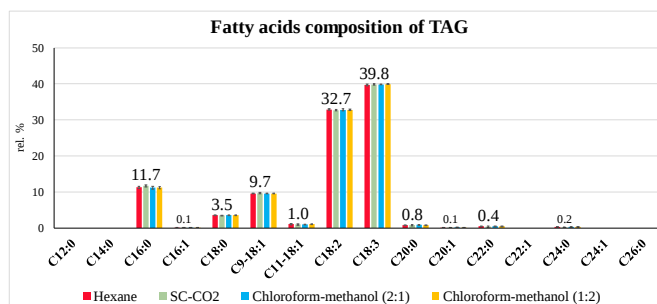


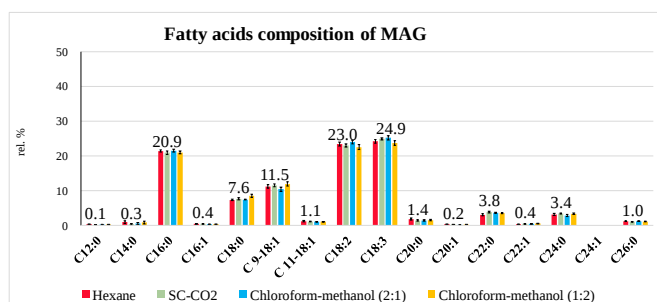
Fig S2 Content of fatty acids in individual lipid classes in purslane seed oil obtained by different extraction methods: (a) 18:0; (b) 22:0; (c) 24:0; (d) 26:0; (e) 12:0; (f) 14:0; (g) 16:1; (h) 11-18:1; (i) 20:0; (j) 20:1; (k) 22:1; (l) 24:1. Abbreviations: MAG – monoacylglycerols, FFA – free fatty acids, DAG – diacylglycerols, X – zone with unidentified compounds, TAG – triacylglycerols, StE – sterol esters, WE – wax esters.



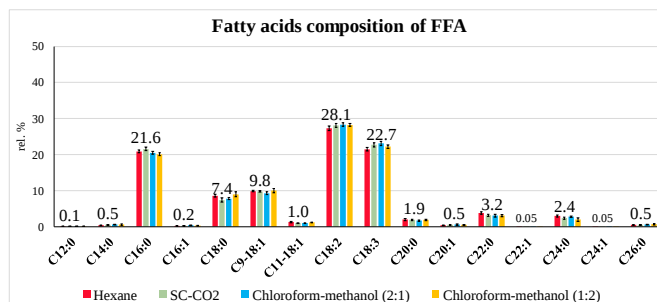
(a)



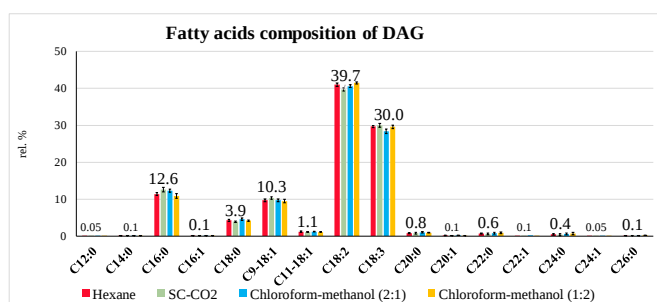
(b)



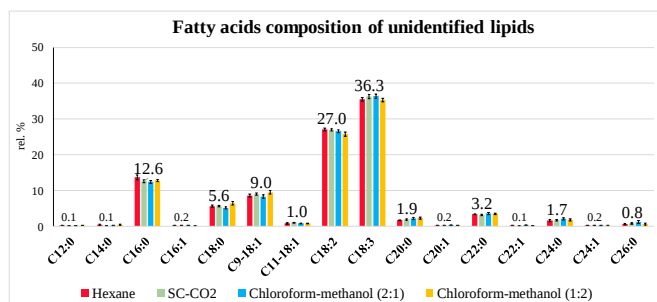
(c)



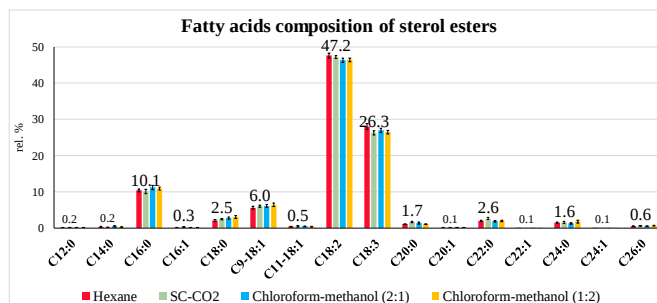
(d)



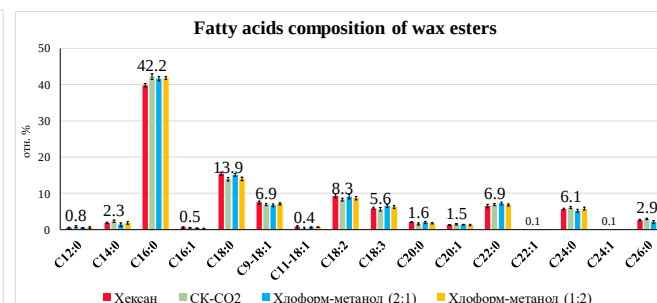
(e)



(f)



(g)



(h)

Fig S3 Content of fatty acids in individual lipid classes in purslane seed oil obtained by different extraction methods: (a) total lipids; (b) triacylglycerols; (c) monoacylglycerols; (d) free fatty acids; (e) diacylglycerols; (f) zone with unidentified compounds; (g) sterol esters; (h) wax esters.