

**Supplementary Materials**

**Mass Spectrometric Characterization of Epoxidized Vegetable Oils**

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Sándor Kéki\*

**Table of contents**

**FIG. S1.....2**

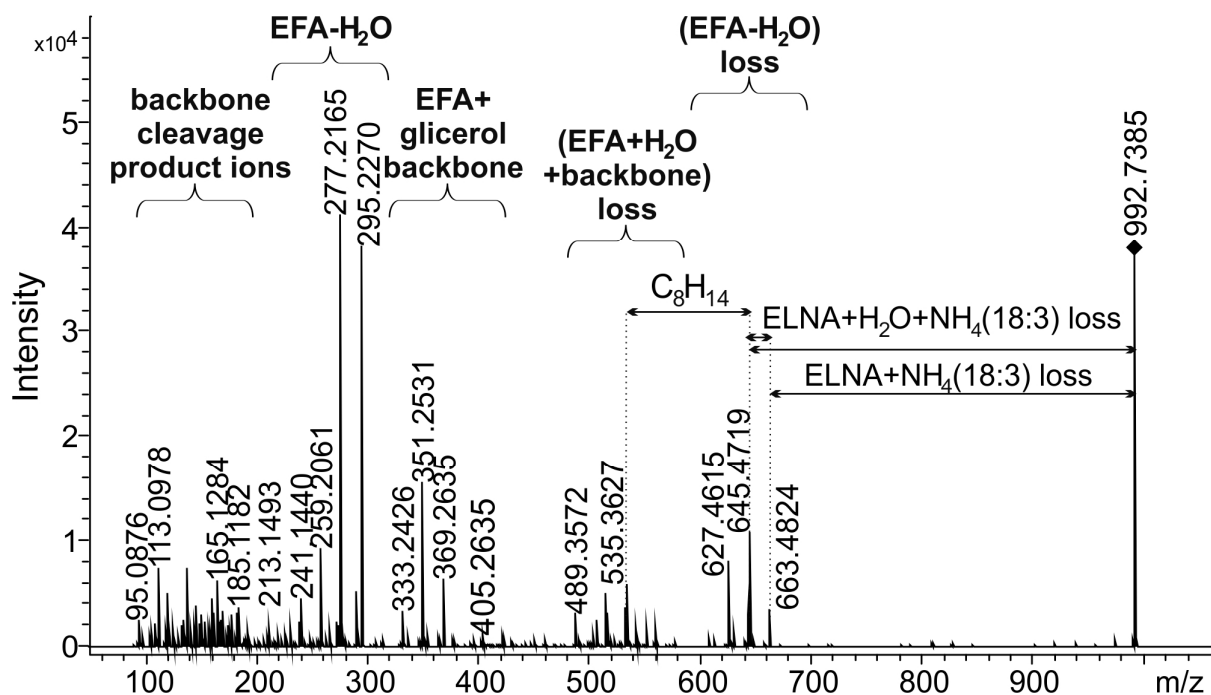
**FIG. S2.....2**

**FIG. S3.....3**

**FIG. S4.....4**

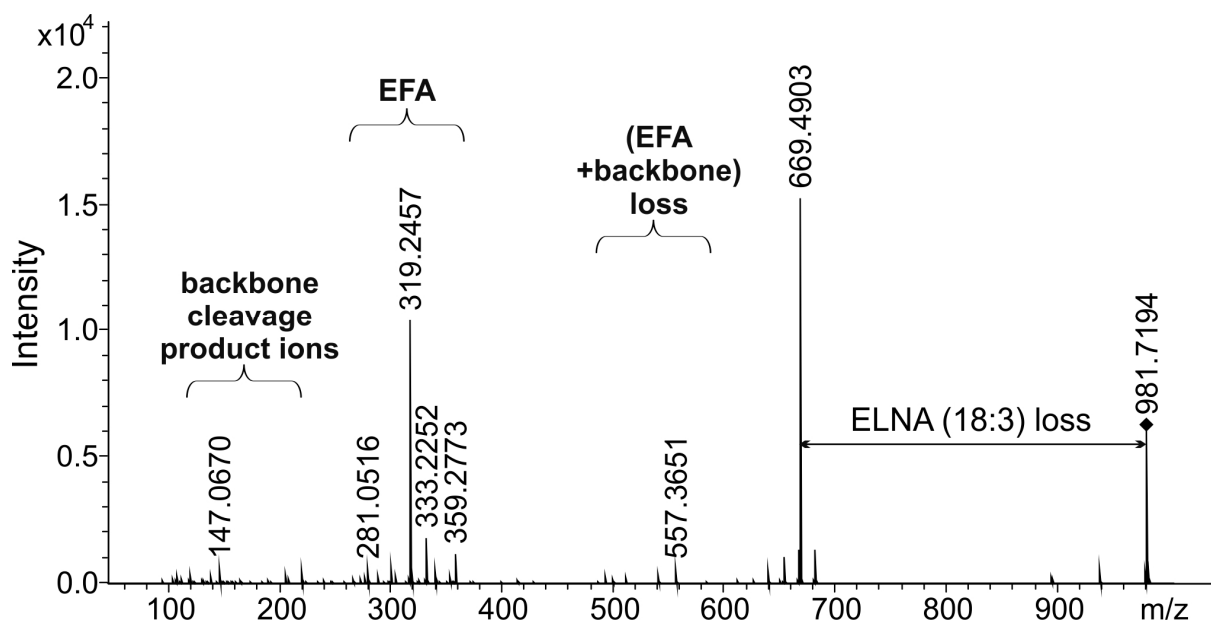
**FIG. S5.....5**

**FIG. S6.....6**



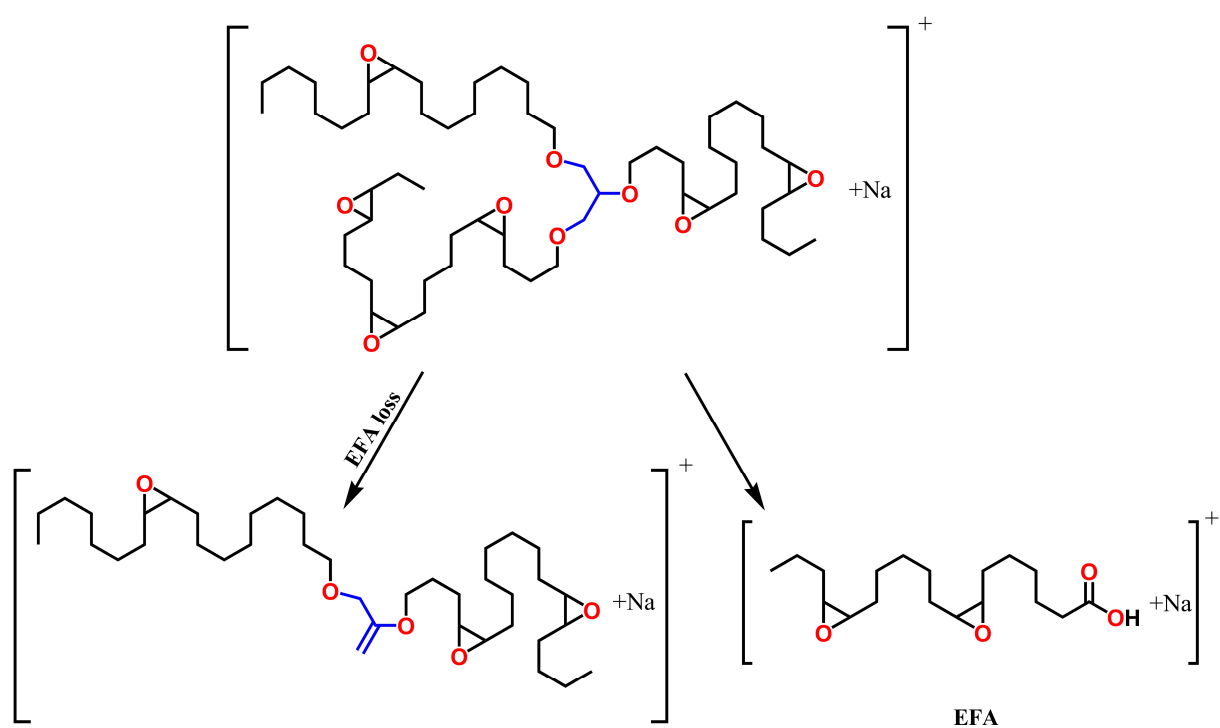
**Figure S1.**

ESI-QTOF MS/MS spectrum of the ammoniated (57:6) ETG adduct at  $m/z$  992 of the soybean oil recorded at a laboratory frame collision energy of 36 eV. Abbreviations: EFA, epoxidized fatty acid; ELNA, epoxidized linolenic acid (18:3).



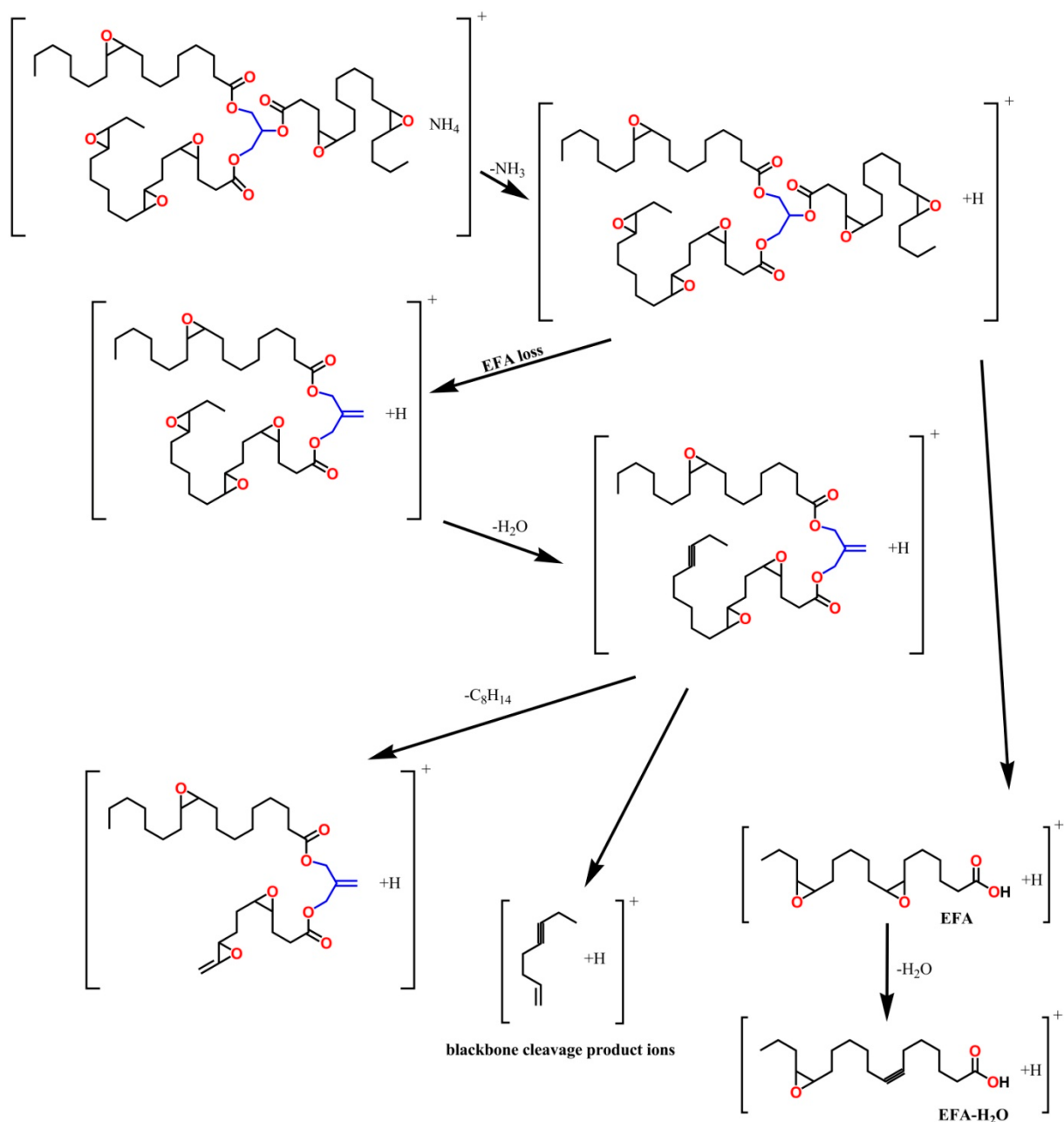
**Figure S2**

ESI-QTOF MS/MS spectrum of the lithiated (57:6) ETG adduct at  $m/z$  981 of the soybean oil recorded at a laboratory frame collision energy of 65 eV. Abbreviations: EFA, epoxidized fatty acid; ELNA, epoxidized linolenic acid (18:3).



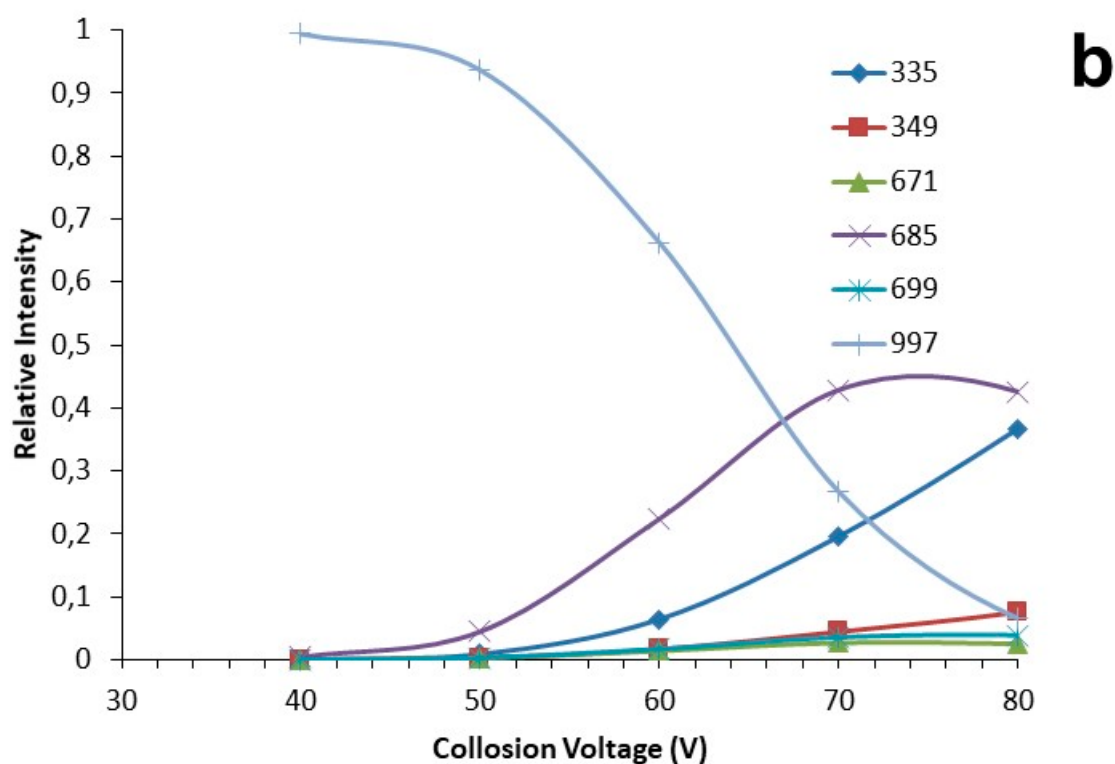
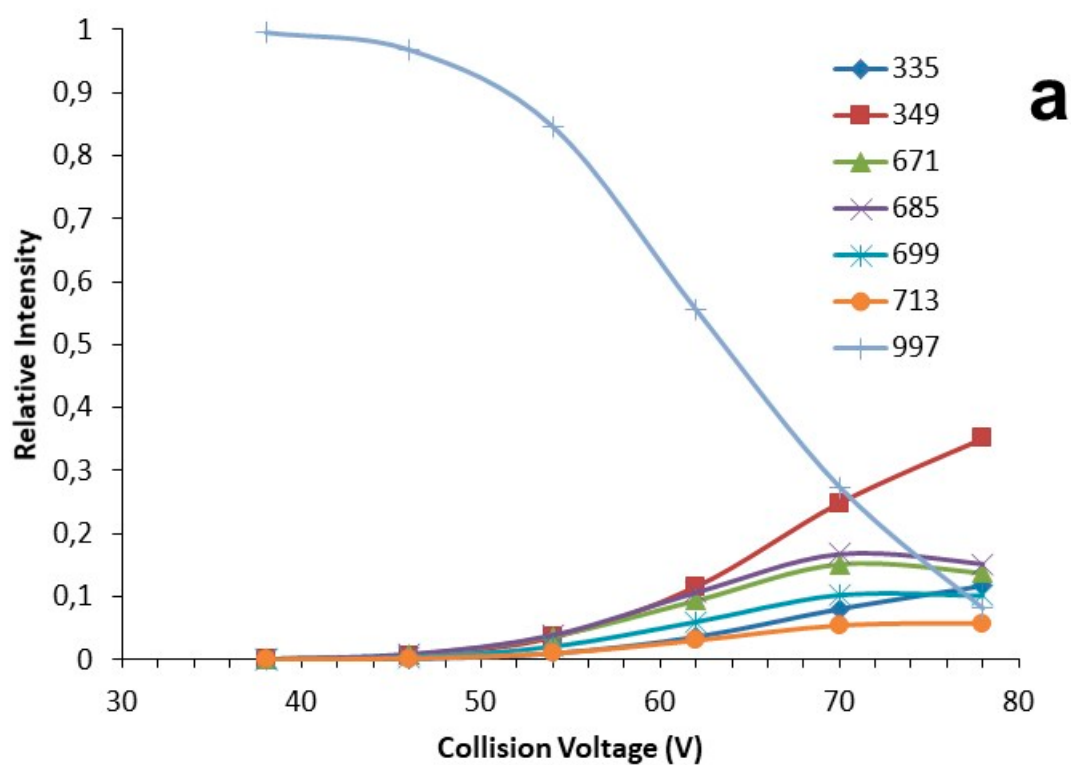
**Figure S3**

Proposed fragmentation pathways of the sodiated epoxidized triglyceride adduct. EFA stands for epoxidized fatty acid.



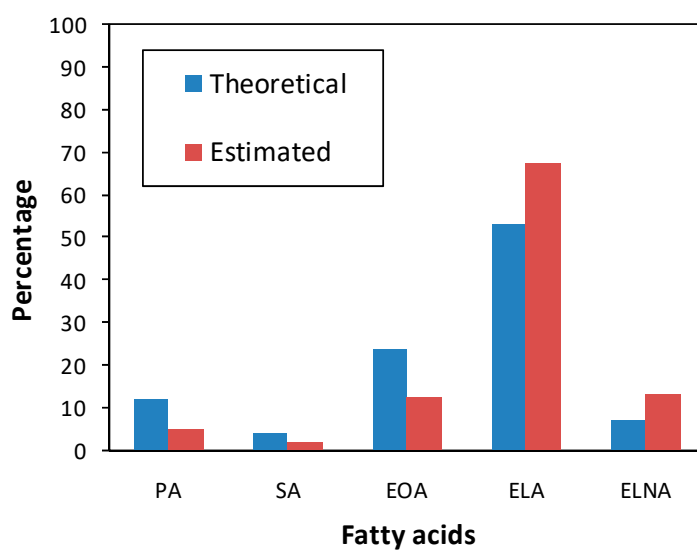
**Figure S4**

Proposed fragmentation pathways of the ammoniated epoxidized triglyceride adduct. EFA stands for epoxidized fatty acid.



**Figure S5**

Breakdown diagrams for the fragment ions  $m/z$  335,  $m/z$  349,  $m/z$  671,  $m/z$  685,  $m/z$  399,  $m/z$  713, and the precursor ion  $m/z$  997 of the sodiated epoxidized triglyceride (57:6) of the (a) linseed oil and (b) soybean oil. Relative intensity was calculated as the ratio of the intensity of a given product ion to that of all the product plus the precursor ions.



**Figure S6**

Epoxidized fatty acid composition of the epoxidized soybean oil calculated by our approach compared to the theoretical values (see in Ref. [1]). Abbreviations: PA, palmitic acid, (16:0); SA, stearic acid (18:0); EOA, epoxidized oleic acid, (18:1); ELA, epoxidized linoleic acid (18:2); ELNA, epoxidized linolenic acid (18:3).

## Reference

1. Güner, F.S.; Yağcı, Y.; Tuncer Erciyes, A. Polymers from triglyceride oils. *Prog. Polym. Sci.* **2006**, *31*, 633–670.