

Supplementary Information

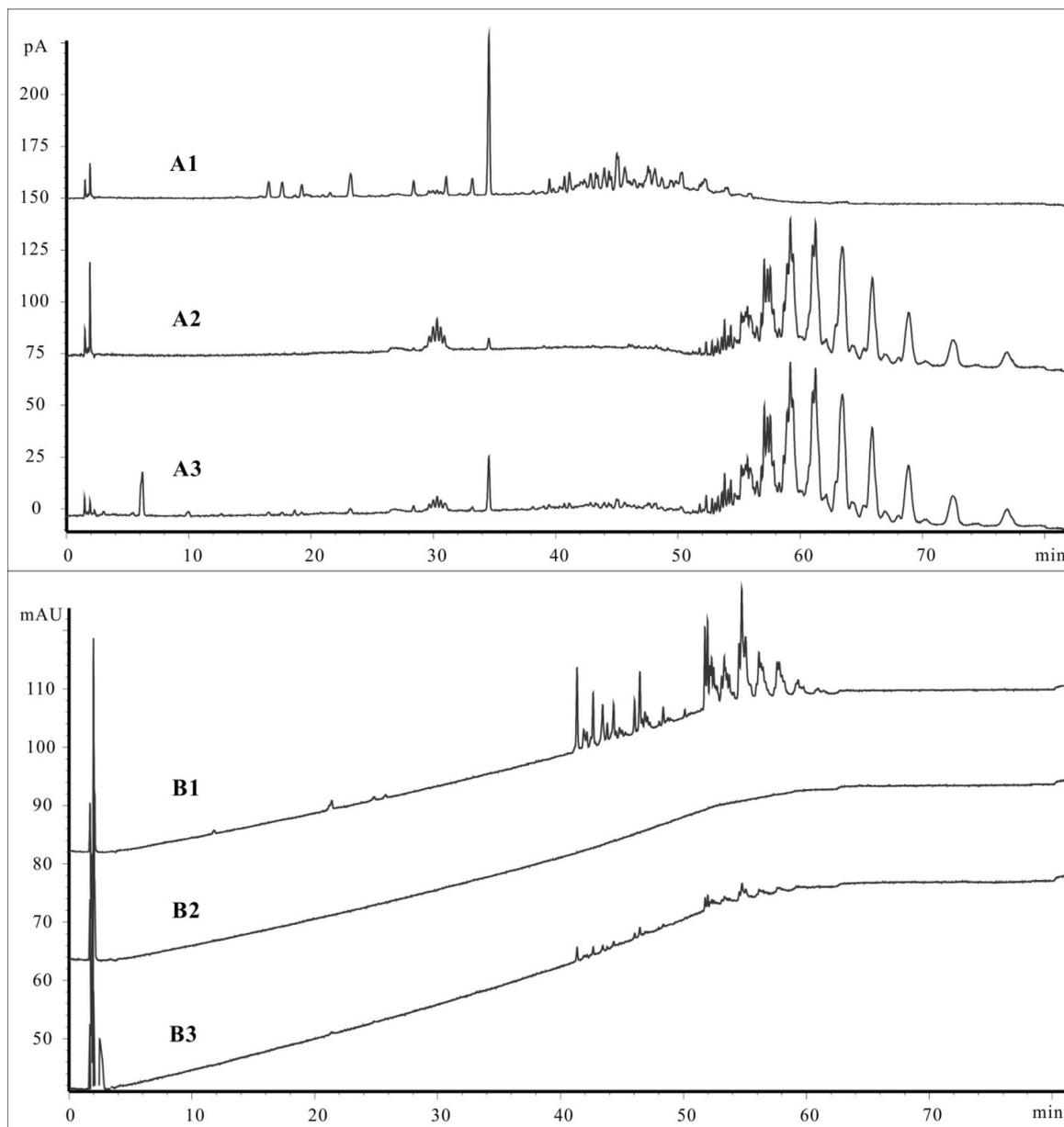


Figure S1. Chromatograms of two fractions of shrimp oil after SPE cleanup, monitored by CAD detector (A) and DAD 476 nm detector (B). HPLC was performed on an HALO C8 column eluted with gradient 1. **A1** and **B1** present astaxanthin rich fraction on CAD and DAD chromatograms, respectively. **A2** and **B2** are those of triacylglycerol rich fraction, whereas **A3** and **B3** are those of shrimp oil. Compared with three CAD chromatograms as shown in **A1**, **A2** and **A3**, triacylglycerol were totally separated from the astaxanthin fraction. It is evident that the DAD chromatogram of triacylglycerol fraction (**B2**) showed no pigment. Taken together, SPE cleanup experiment successfully removed all the triacylglycerol apart from shrimp oil and left astaxanthin rich fraction for MS analysis.