

Article

Identification of Degradation Products and Components in Shellfish Purple by Ultrahigh Performance Liquid Chromatography Coupled with Tandem Mass Spectrometry

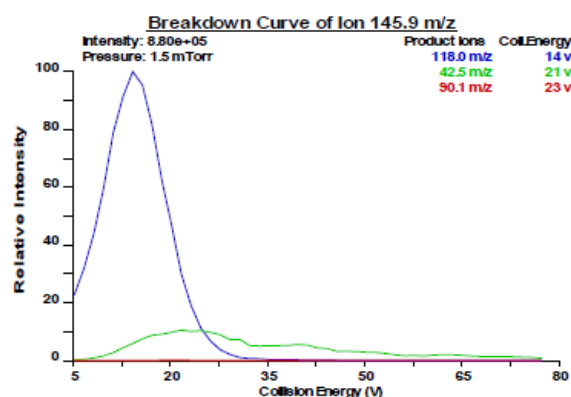
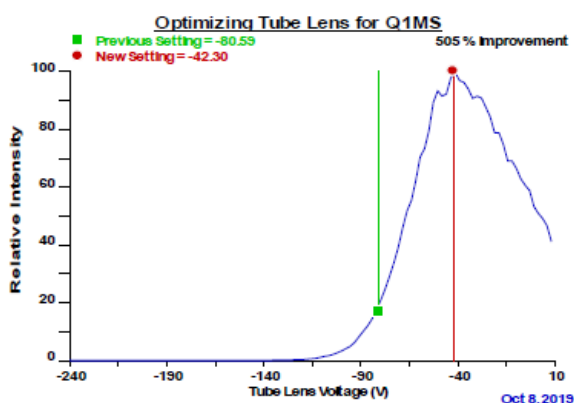
Athina Vasileiadou ¹, Ioannis Sampsonidis ^{2,*}, Georgios Theodoridis ¹, Anastasia Zotou ¹, Ioannis Karapanagiotis ¹ and Stavros Kalogiannis ^{2,*}

¹ Department of Chemistry, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece; ecclesiasticalrelics@gmail.com (A.V.); gtheodor@chem.auth.gr (G.T.); azotou@chem.auth.gr (A.Z.); karapana@chem.auth.gr (I.K.)

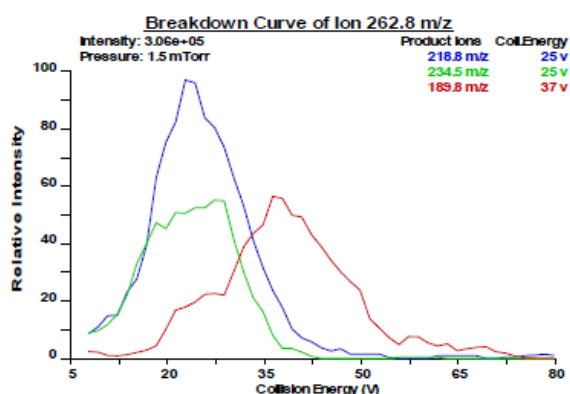
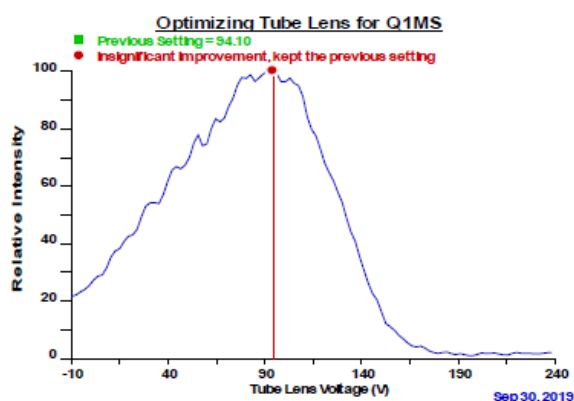
² Department of Nutritional Sciences and Dietetics, International Hellenic University, 57400 Thessaloniki, Greece

* Correspondence: isampson@nutr.teithe.gr (I.S.); kalogian@ihu.gr (S.K.); Tel.: +30-2310-013900 (I.S.); +30-2310-013924 (S.K.)

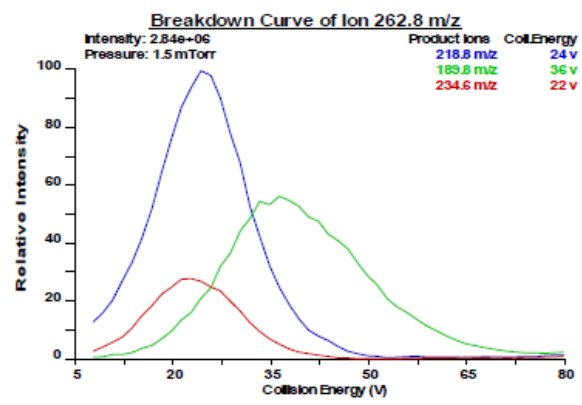
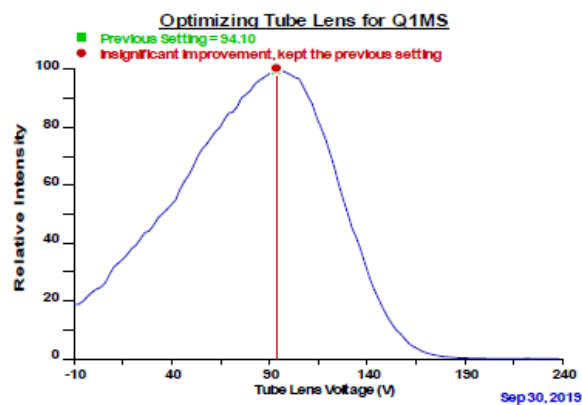
Isatin



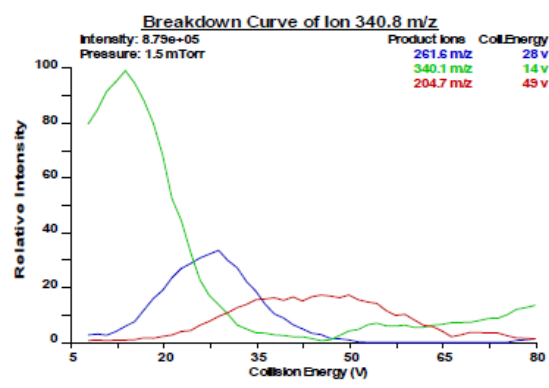
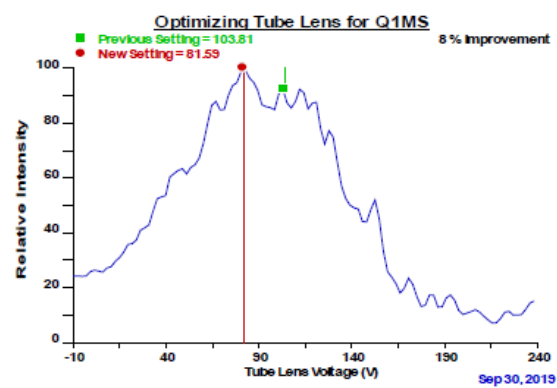
Indigotin



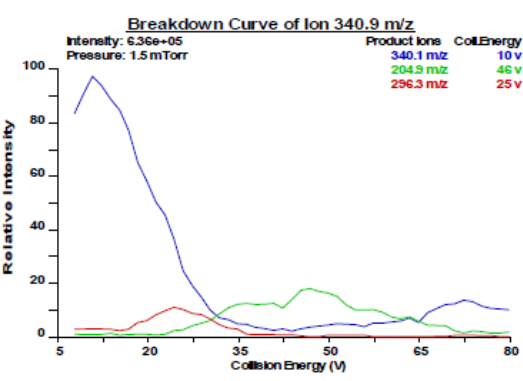
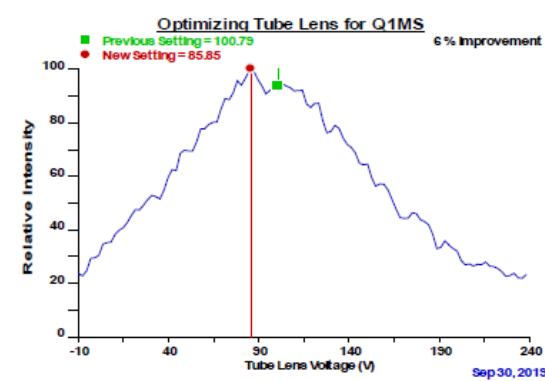
Indiroubin



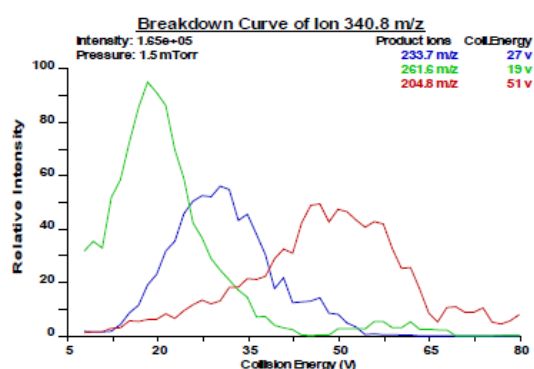
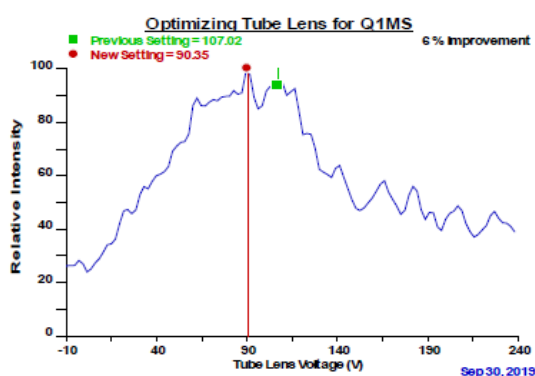
6-bromoindigotin



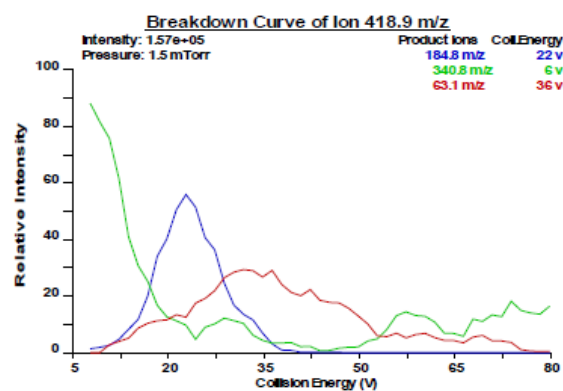
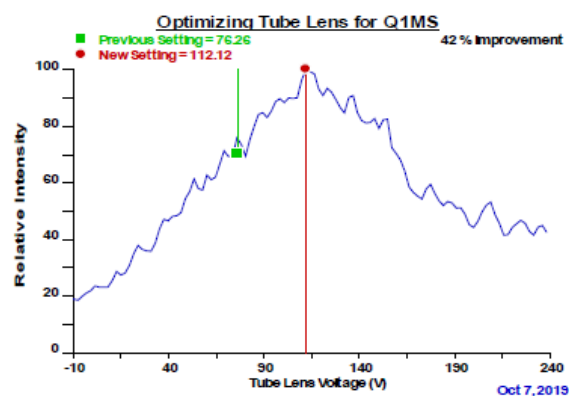
6'-bromoindiroubin



6-bromoindiroubin



6,6'-dibromoindigotin



6,6'-dibromoindiroubin

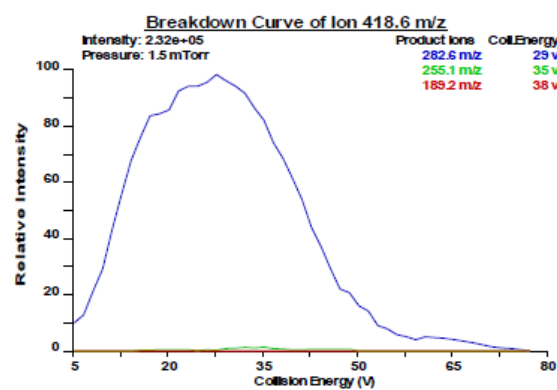
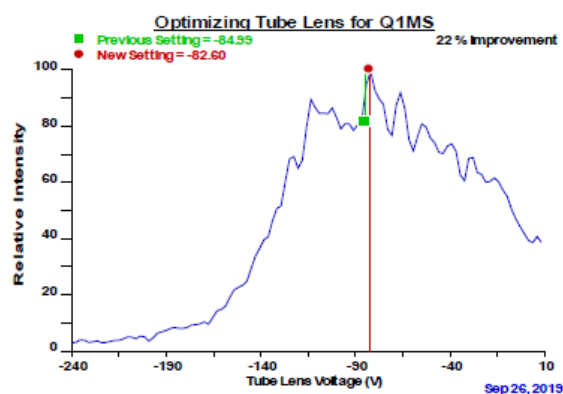
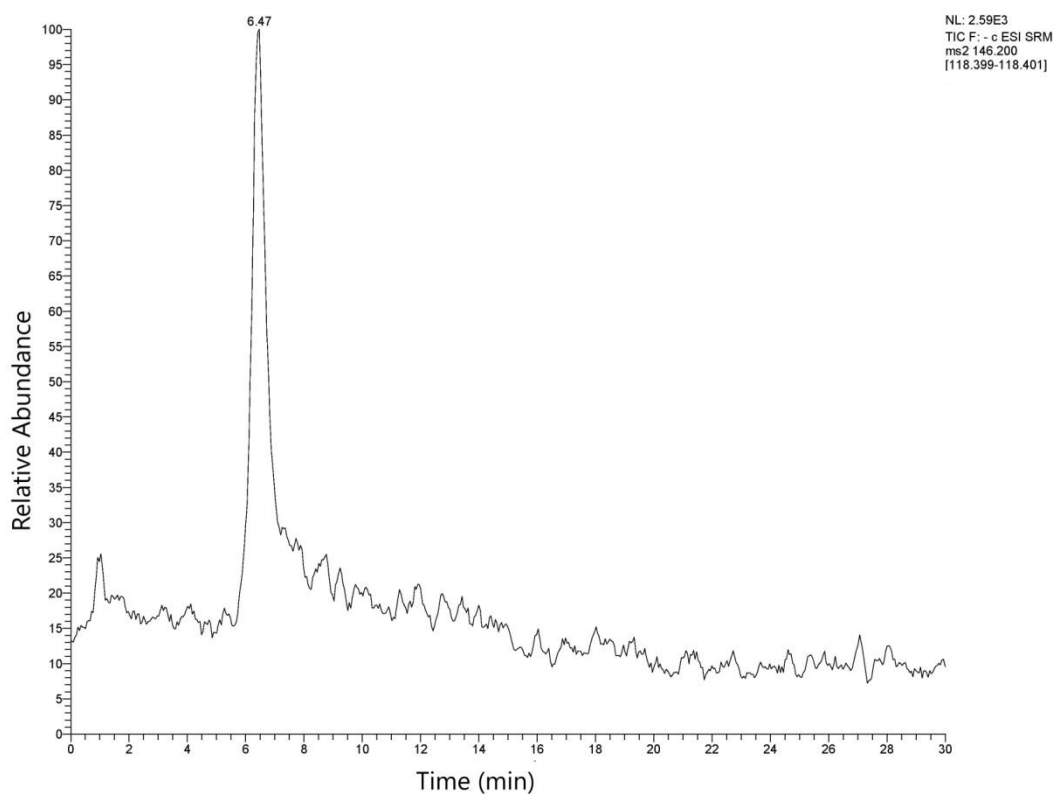
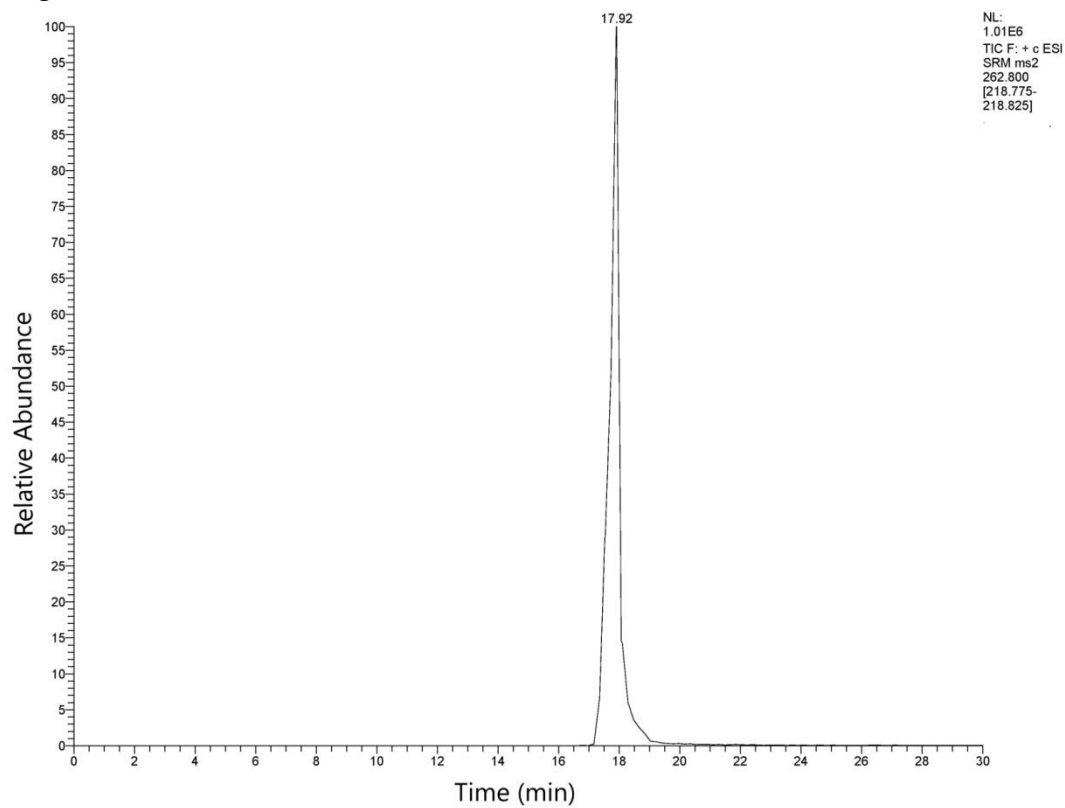


Figure S1. The optimizing tube lens and breakdown curve of ion of isatin, indigotin, indiroubin and their brominated derivatives.

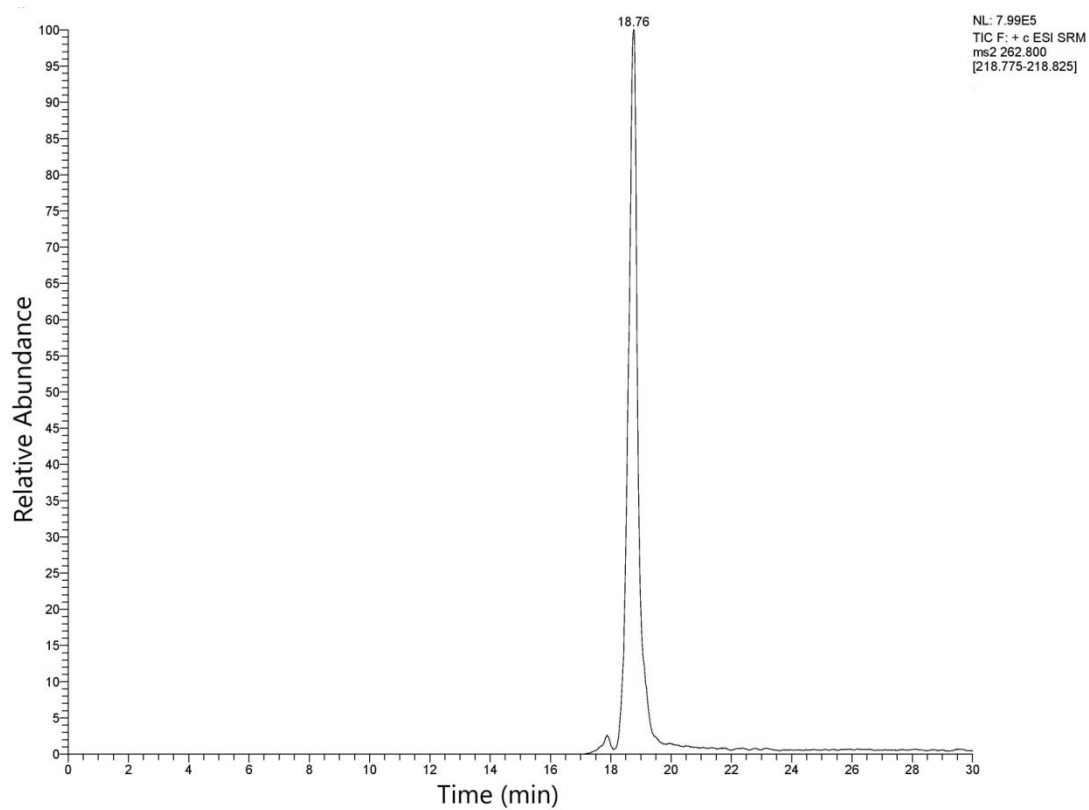
Isatin



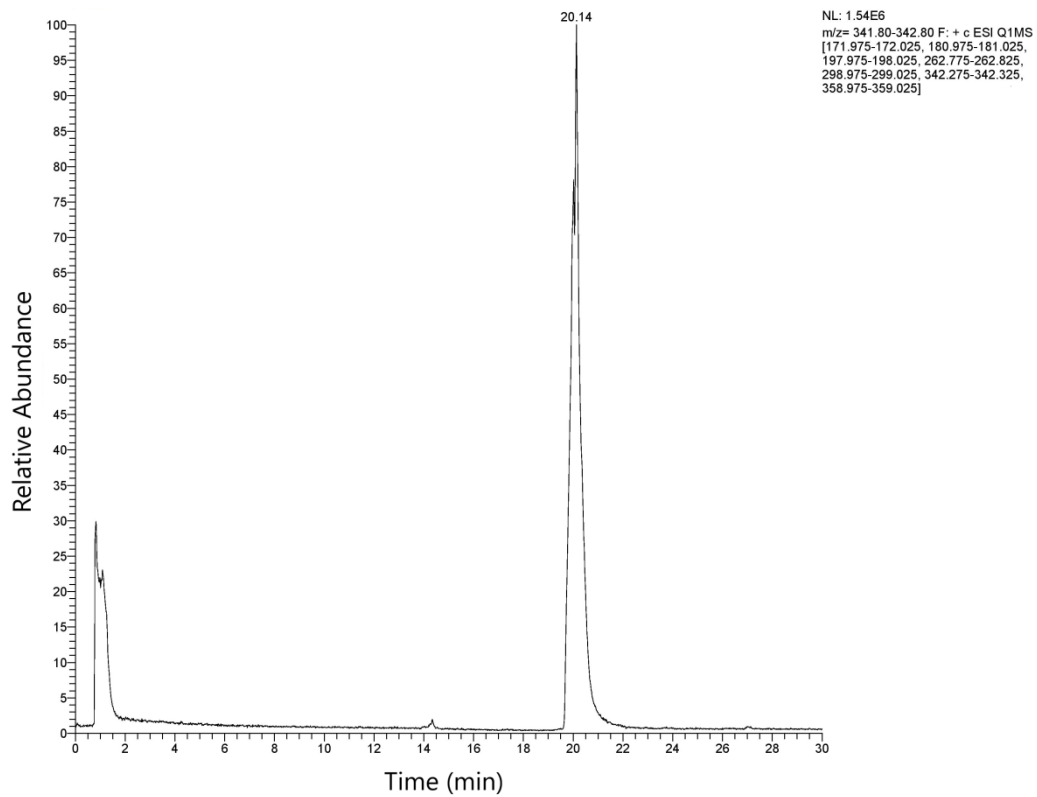
Indigotin



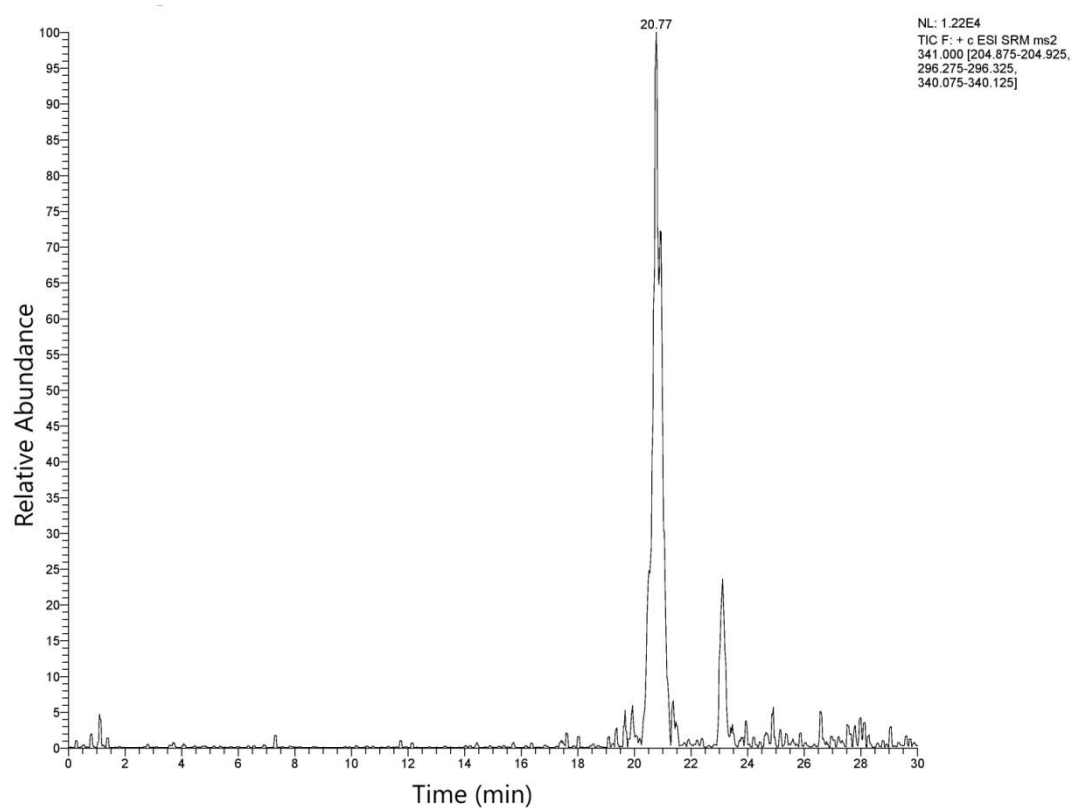
Indiroubin



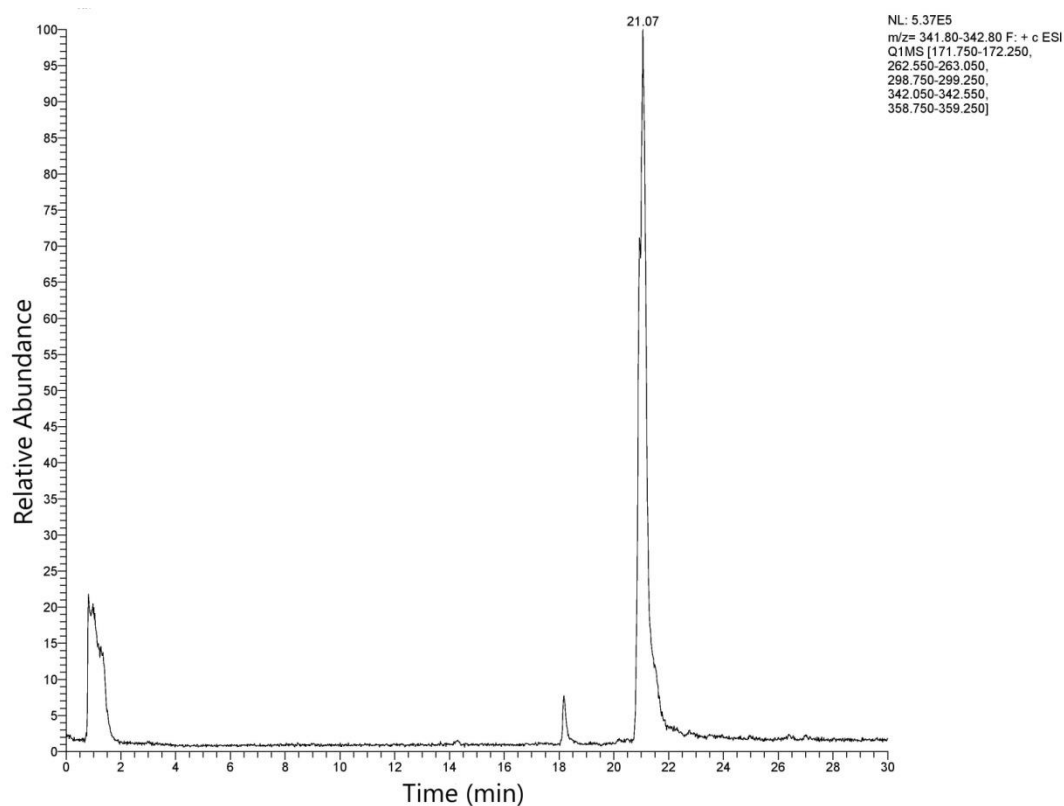
6-bromoindirubin



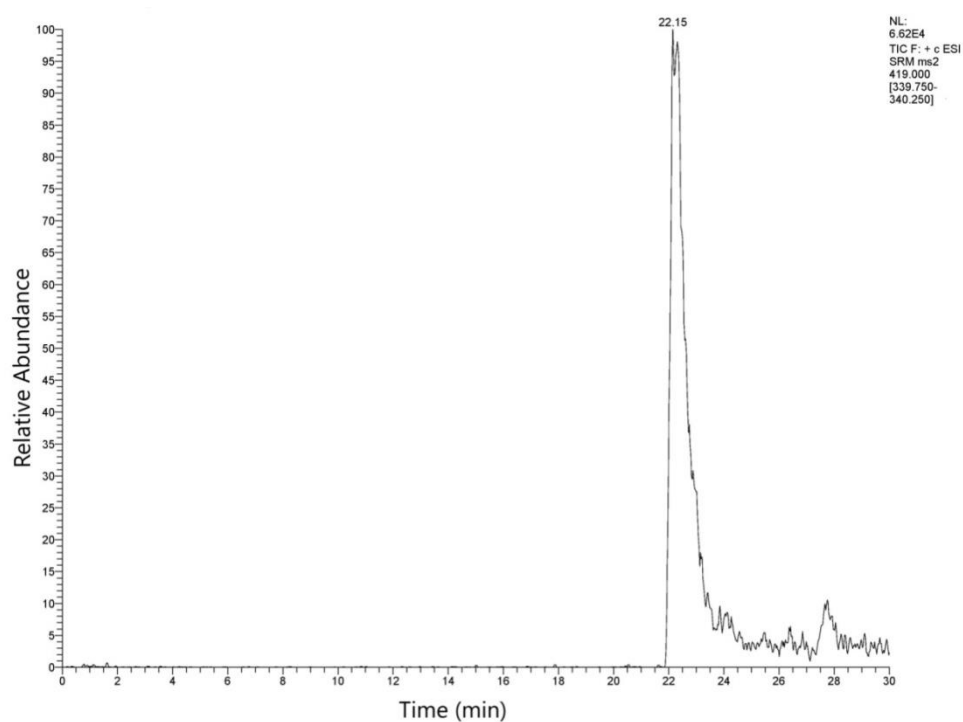
6'-bromoindirubin



6-bromoindirubin



6,6'-dibromoindigotin



6,6'-dibromoindirubin

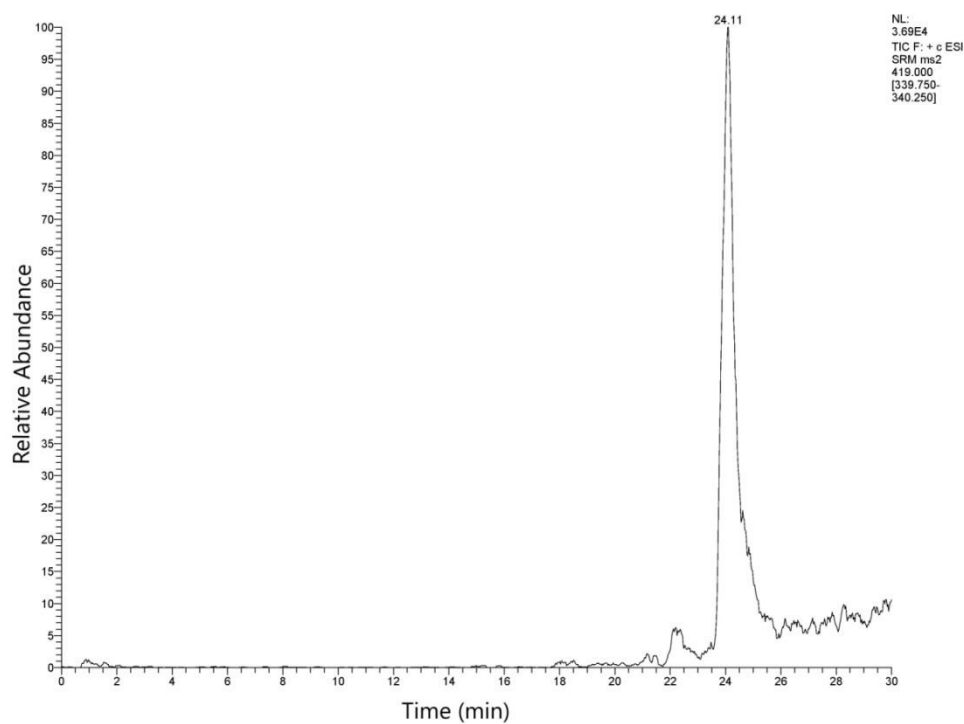


Figure S2. The chromatograms for the components at concentration of 10 $\mu\text{g mL}^{-1}$.

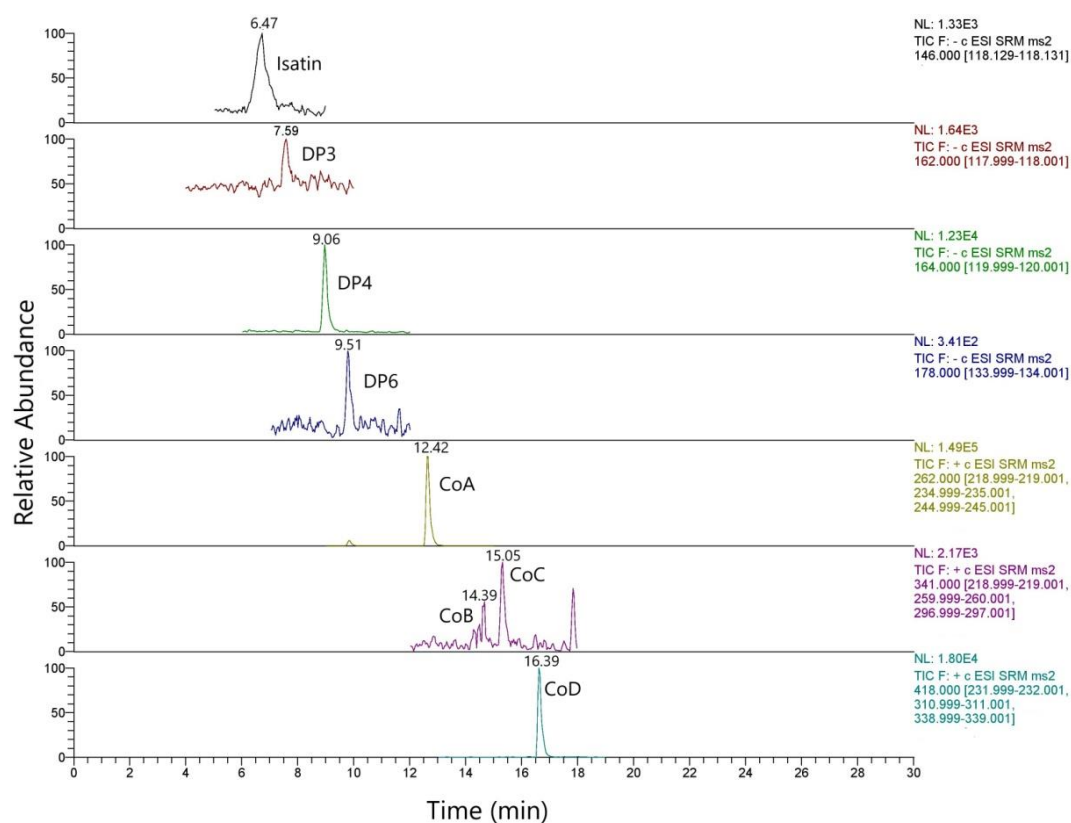
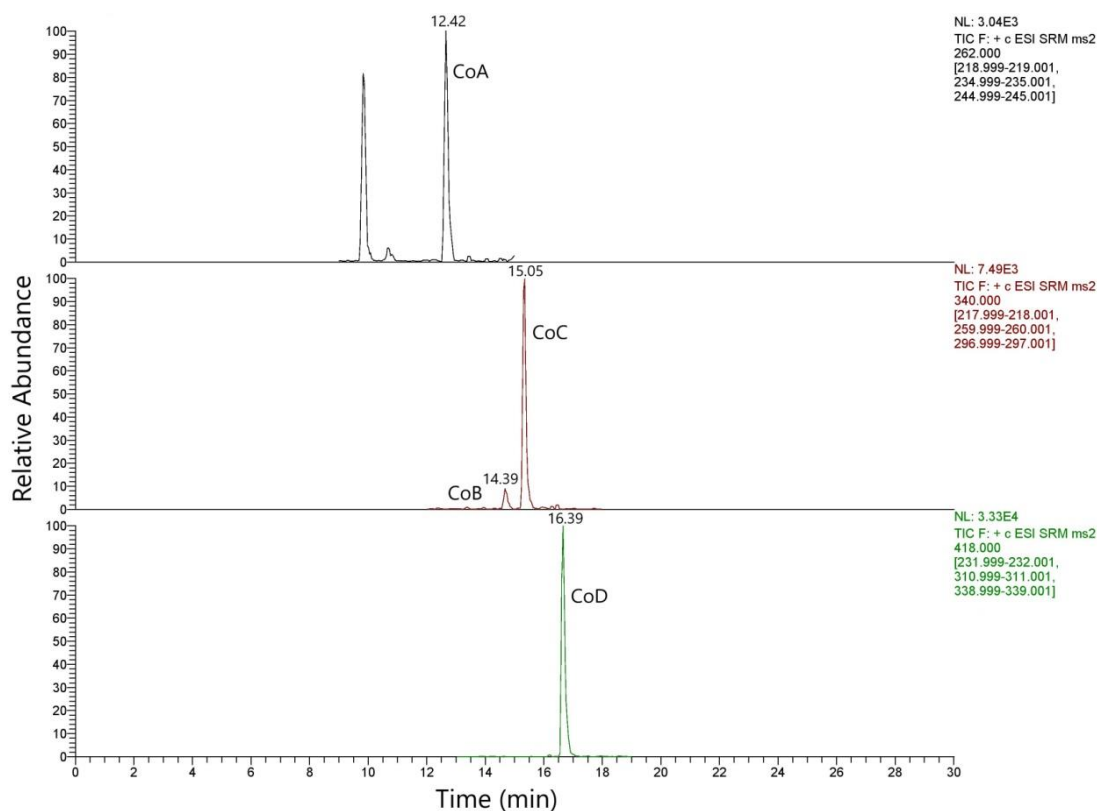
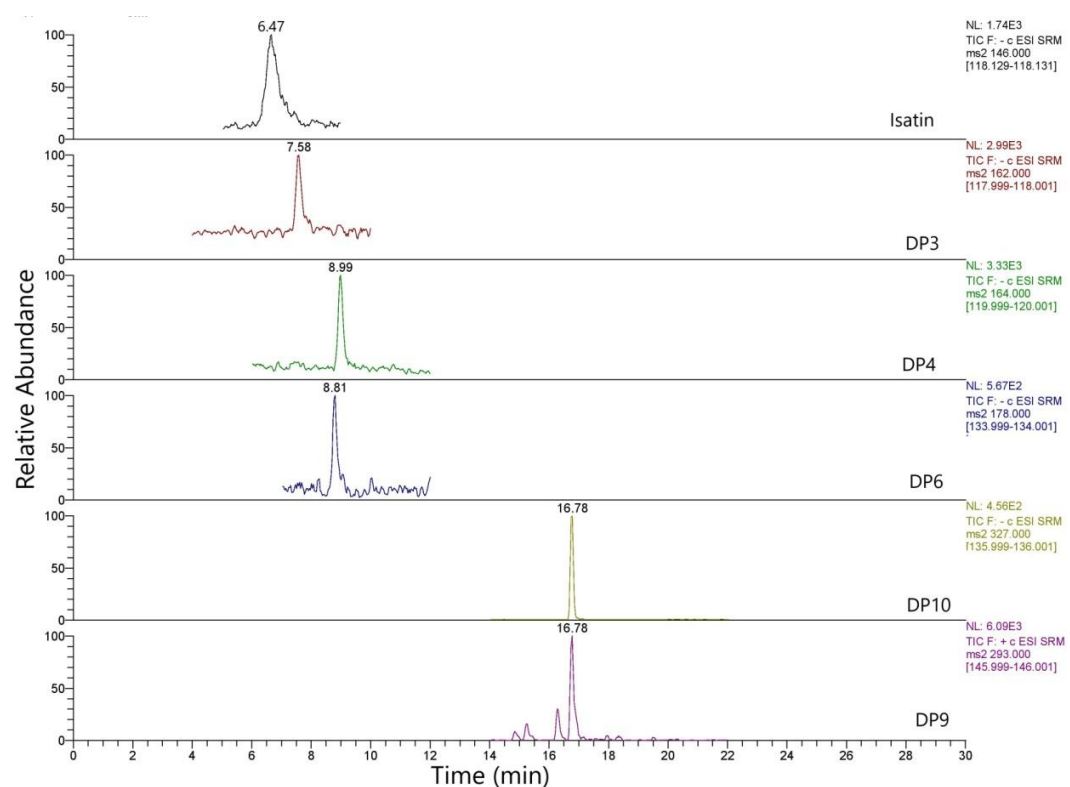


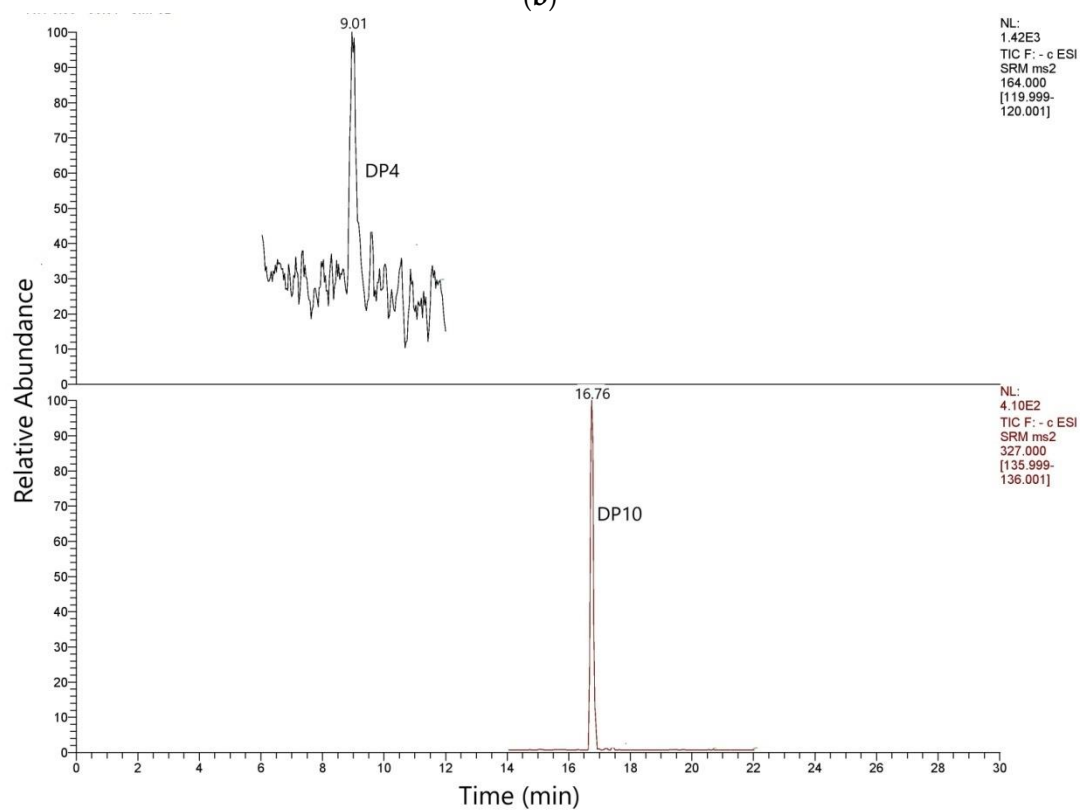
Figure S3. The degradation products and four coloring components of the solution of shellfish purple that left at room temperature for 30 days.



(a)



(b)



(c)

Figure S4. Chromatograms of silk sample dyed with shellfish purple; a) four coloring components, b) degradation products in fresh solution and c) degradation products in the solution after 30 days.