

1 **Table S1:** Reference standards used to develop a separation and quantification method

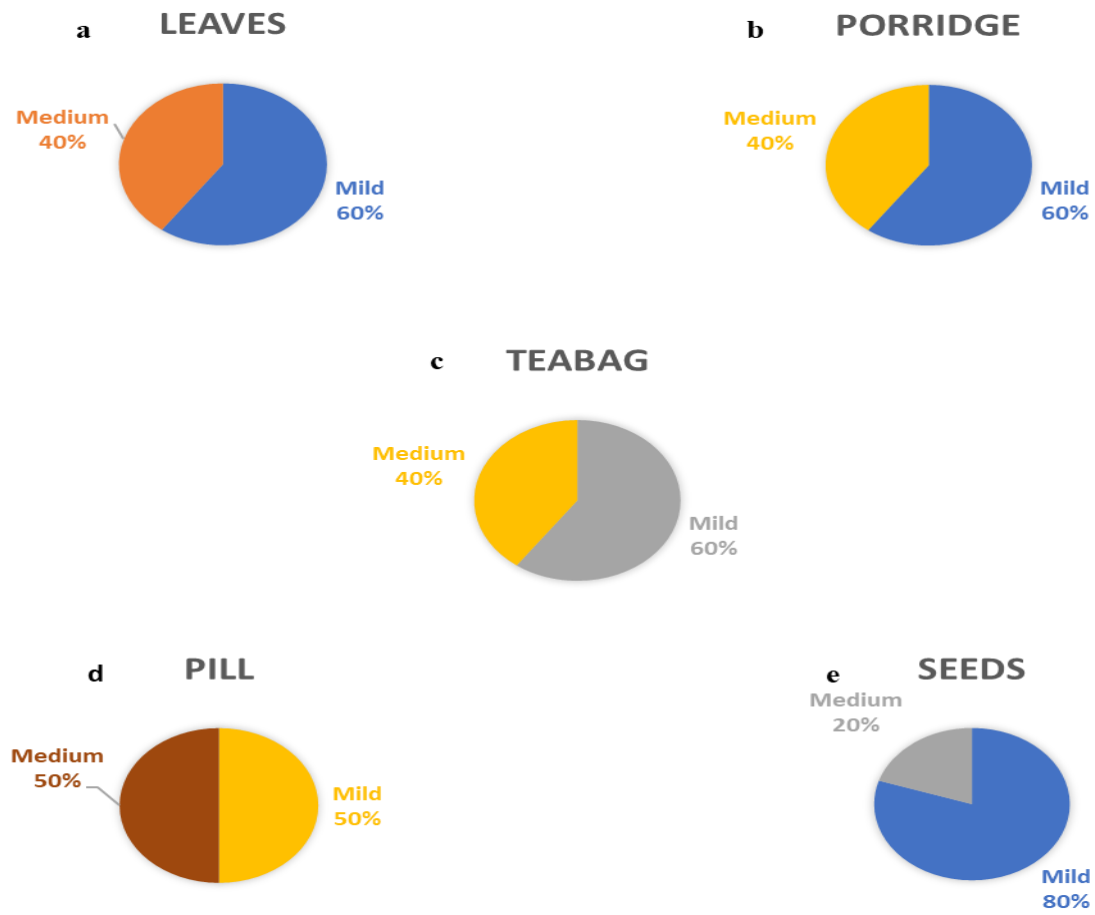
2

Compound name	Compound number	CAS number	Molecular mass	Supplier
3,4,5-trihydroxybenzoic acid	1	149-91-7	170.12 g mol <sup>-1</sup>	Sigma-Aldrich
3-caffeoylquinic acid	2	N/A	355.1019 g mol <sup>-1</sup>	Sigma- Aldrich
4-hydroxy-3-methoxybenzaldehyde	3	121-33-5	152.15 g mol <sup>-1</sup>	Sigma-Aldrich
2,3,7,8-tetrahydroxychromen [5,4,3-cde]chromen-5,10-dion	4	476-66-4	302.19 g mol <sup>-1</sup>	Sigma-Aldrich

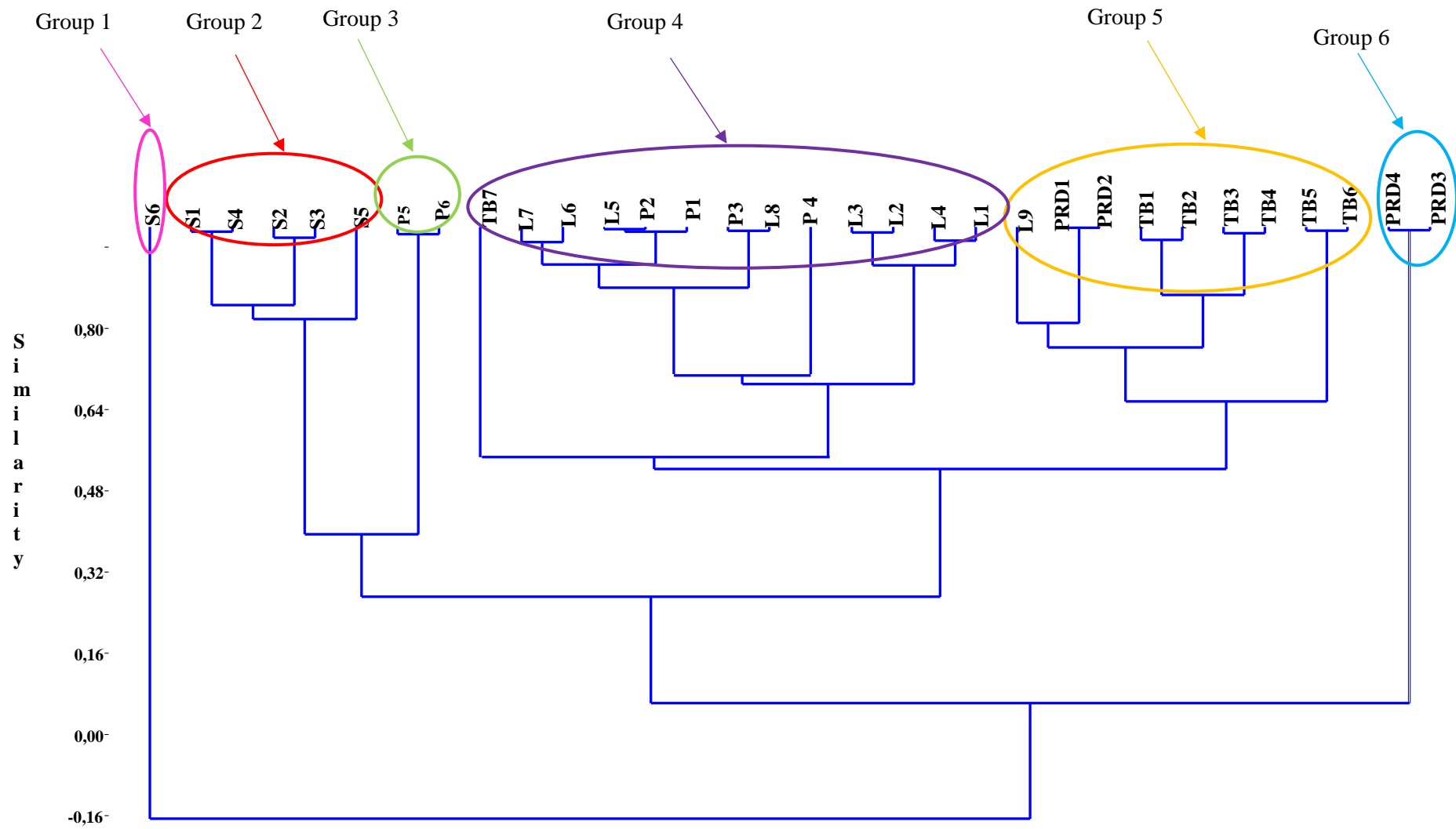
(E)-3-(4-hydroxy-3-methoxyphenyl)prop-2-enoic acid	5	537-98-4	194.18 g mol <sup>-1</sup>	Sigma-Aldrich
O-ethyl-[4-( $\alpha$ -L-rhamnosyloxy) benzyl] thiocarbamate	6		358.1401 g mol <sup>-1</sup>	Isolated
(4- $\alpha$ -L-rhamnosyloxy)-benzyl isothiocyanate	7	N/A	334.0797 g mol <sup>-1</sup>	Isolated
2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxychromen-4-one	8	117-39-5	302.24 g mol <sup>-1</sup>	Sigma-Aldrich
O-butyl-[4-( $\alpha$ -L-rhamnosyloxy) benzyl] thiocarbamate	9	N/A	386.1719 g mol <sup>-1</sup>	Isolated

3,5,7-trihydroxy-2-(4-hydroxyphenyl)chromen-4-one	10	520-18-3	286.24 g mol <sup>-1</sup>	Sigma-Aldrich
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3



**Figure S1:** Composition of mild and medium matrix effect in the different products



**Figure S2:** Hierarchical clustering of the samples

**Table S2:** Samples information

<b>Sample</b>	<b>Country</b>	<b>Region/ company name</b>	<b>GPS coordinates</b>	<b>Month collected</b>	<b>Voucher species#</b>
L1	South Africa	Mpumalanga	25.1112°S, 28.5583°E	April	267
L2	South Africa	Mpumalanga	19.6633°S, 22.1937°E	April	268
L3	South Africa	Mpumalanga	25.0104°S, 28.8014°E	April	269
L4	South Africa	Mpumalanga	25.0259°S, 28.7023°E	May	270
L5	South Africa	Limpopo	23.8962°S, 29.4486°E	May	271
L6	South Africa	Limpopo	24.3110°S, 29.4753°E	May	272
L7	South Africa	Limpopo	24.8844°S, 28.3287°E	May	273
L8	South Africa	Limpopo	23.8477°S, 29.3933°E	May	274
L9	Ethiopia	Arbaminch	6.0205°N, 37.5641°e	Unknown	275
S1	South Africa	Mpumalanga	25.1112°S, 28.5583°E	April	276
S2	South Africa	Mpumalanga	19.6633°S, 22.1937°E	April	278
S3	South Africa	Mpumalanga	25.0104°S, 28.8014°E	April	279
S4	South Africa	Limpopo	23.8477°S, 29.3933°E	May	280
S5	South Africa	Limpopo	24.3110°S, 29.4753°E	May	281
S6	Zambia	Unknown	Unknown	Unknown	282

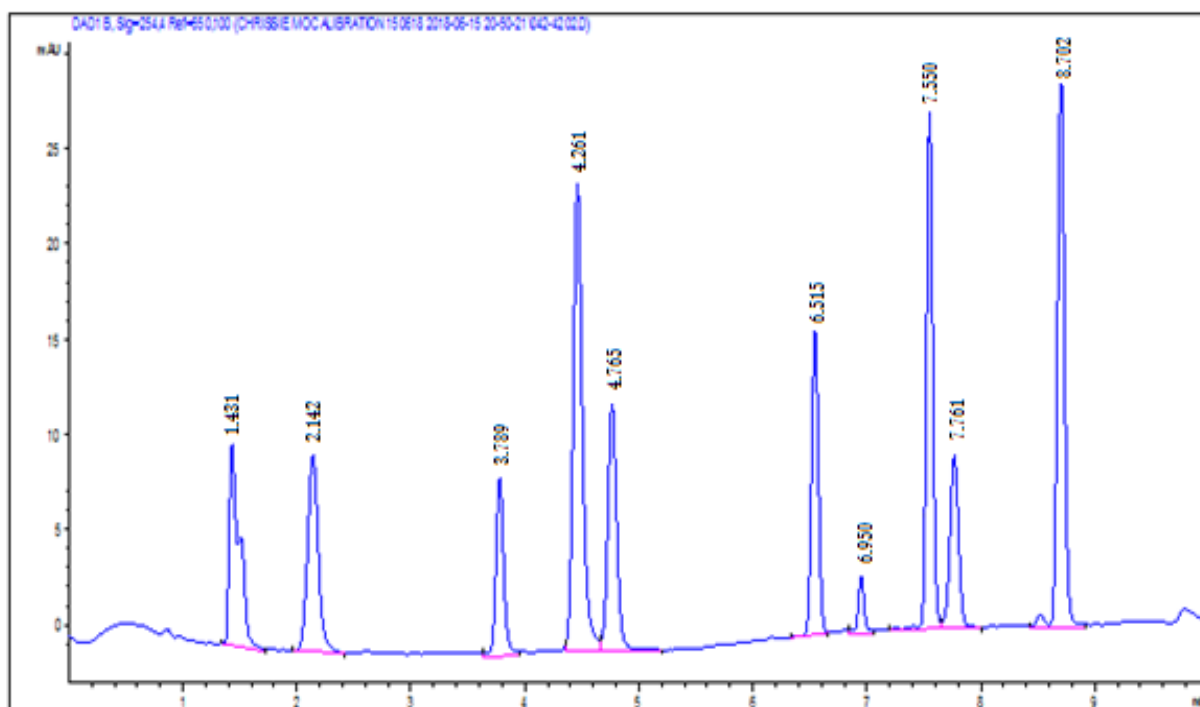
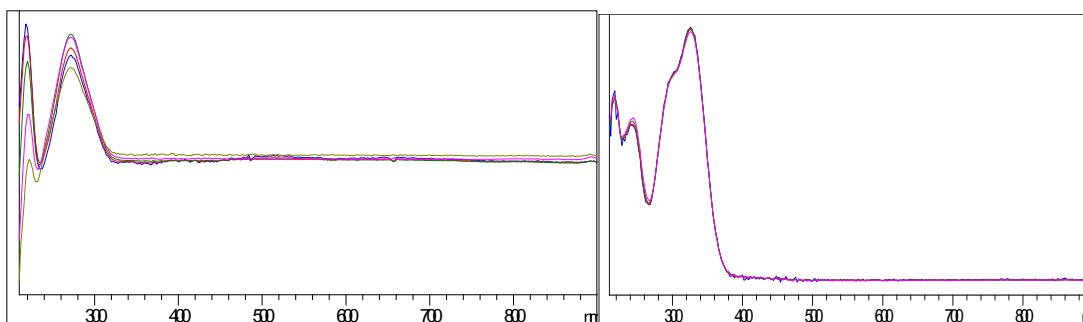


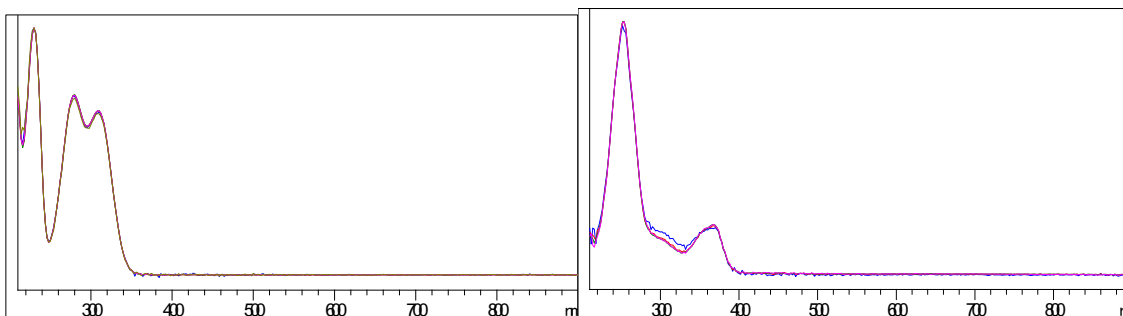
Figure S3: Chromatogram for the standards at 10 mg/L in the solvent

UV- Vis Spectra for the compound 1 – 10 in the solvent



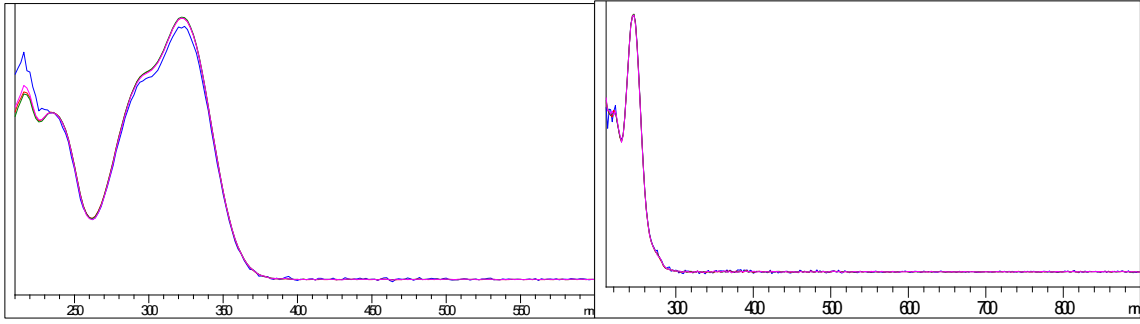
Compound 1

Compound 2



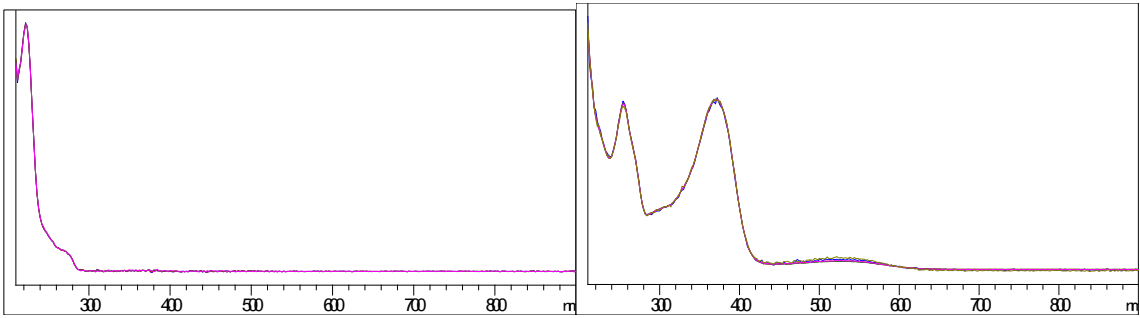
Compound 3

Compound 4



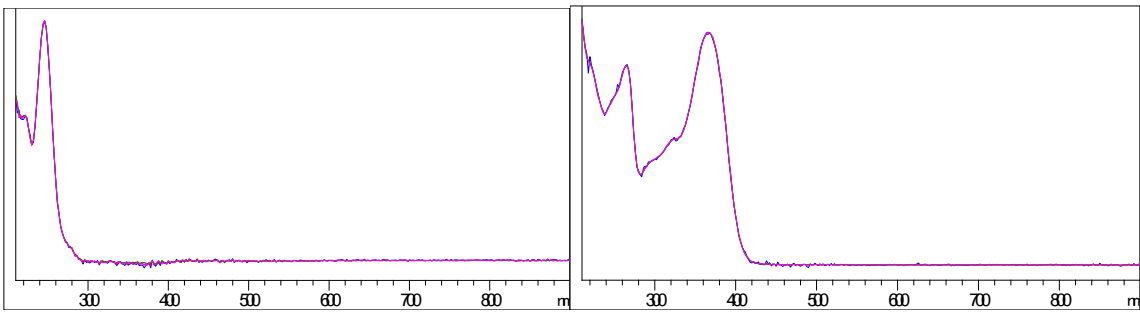
Compound 5

Compound 6



Compound 7

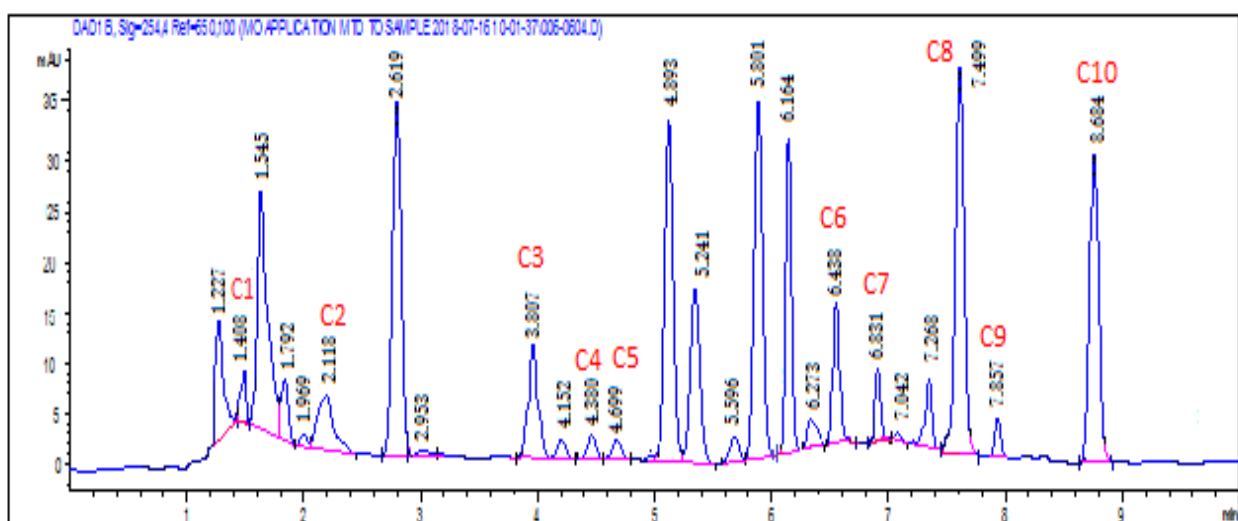
Compound 8



Compound 9

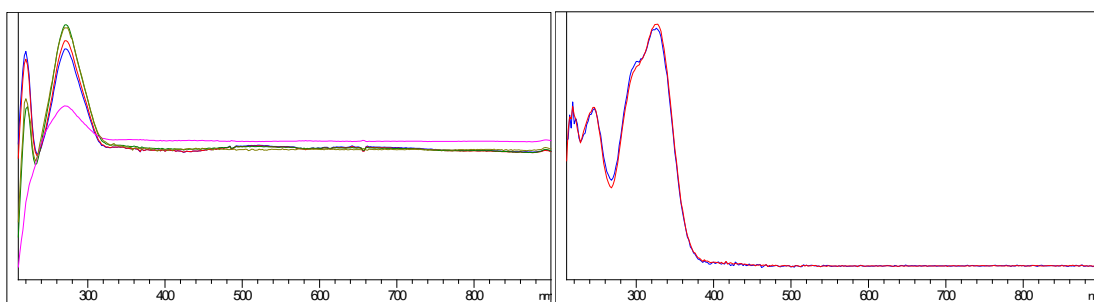
Compound 10





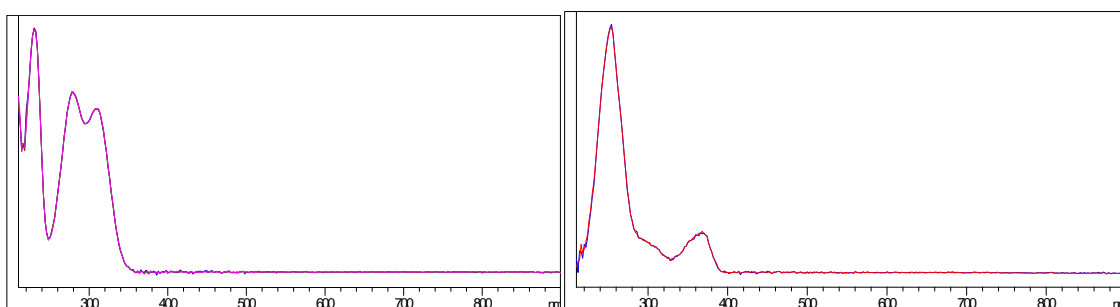
**Figure S4: Chromatogram representing L4 separated using the validated method**

**UV- Vis Spectra of the compounds of interest identified in L4**



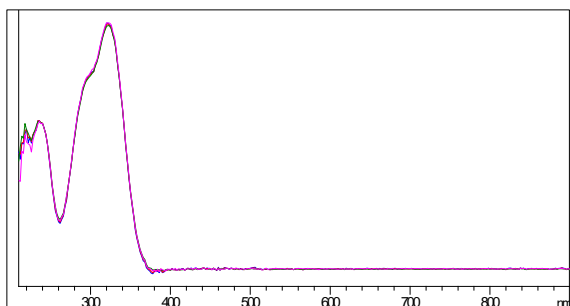
Compound 1

Compound 2

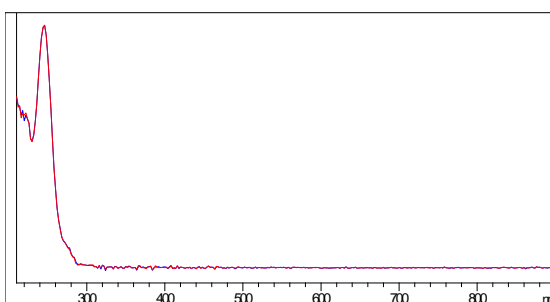


Compound 3

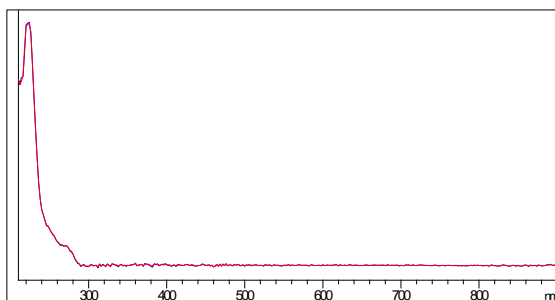
Compound 4



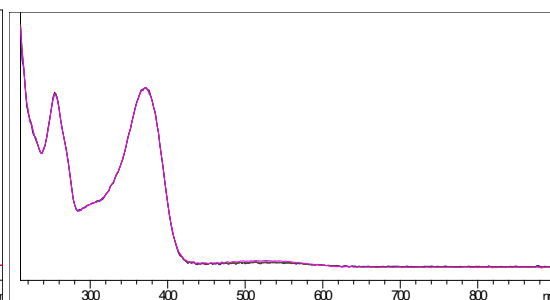
Compound 5



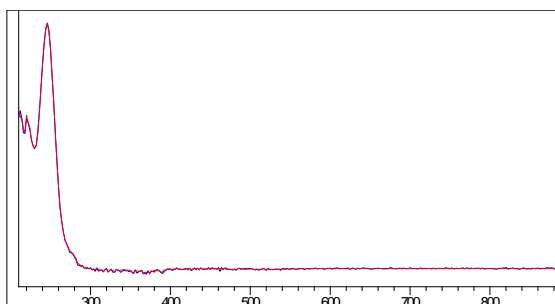
Compound 6



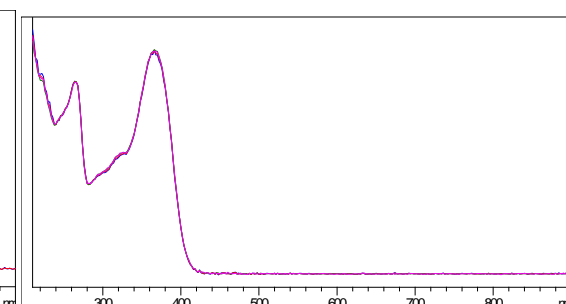
Compound 7



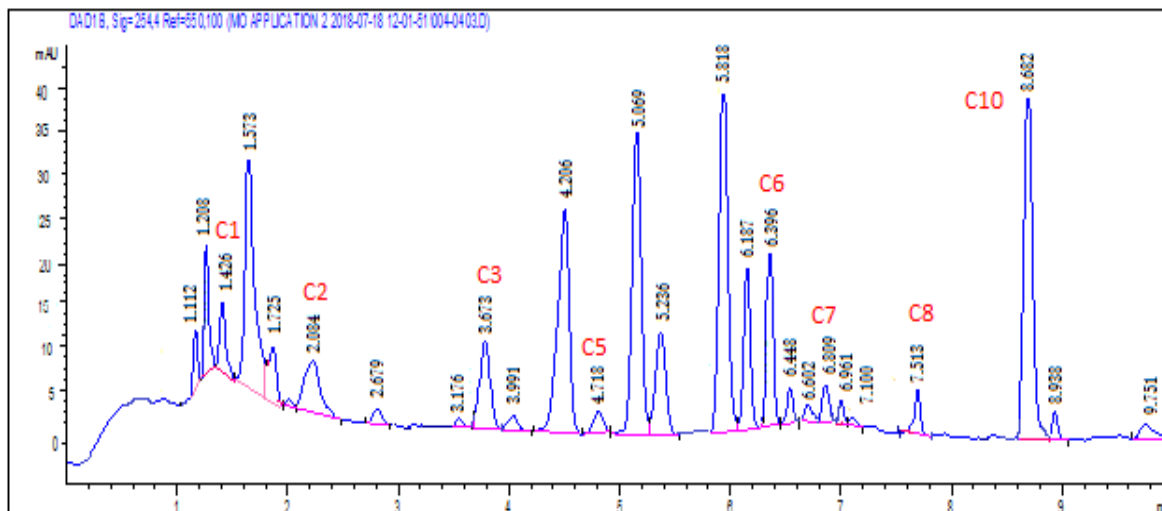
Compound 8



Compound 9

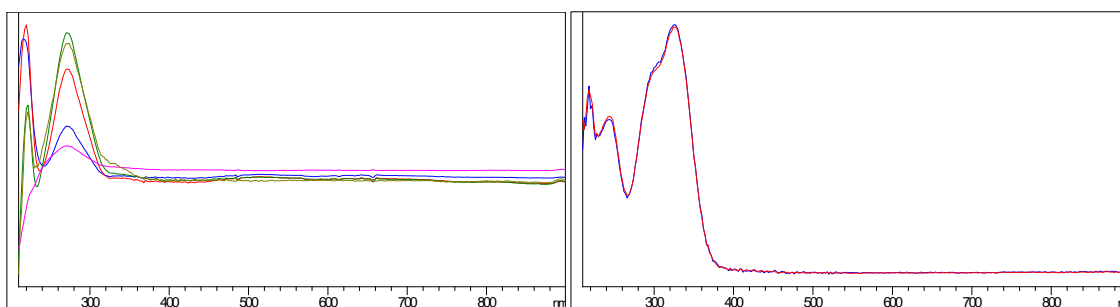


Compound 10



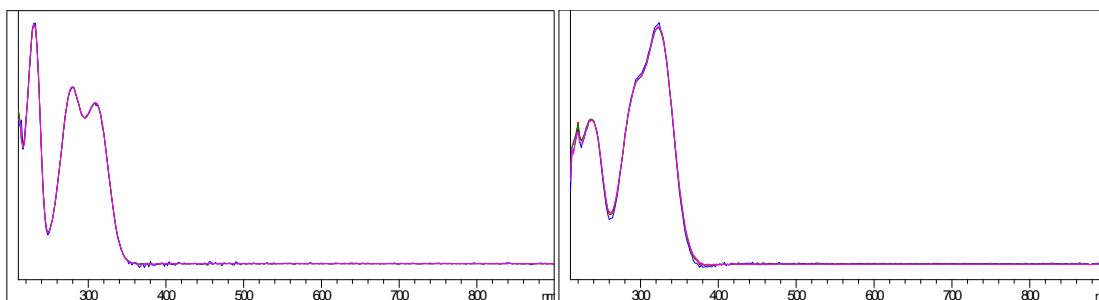
**Figure S5: Chromatogram representing P4 separated using the validated method**

**UV- Vis Spectra of the compounds of interest identified in P4**



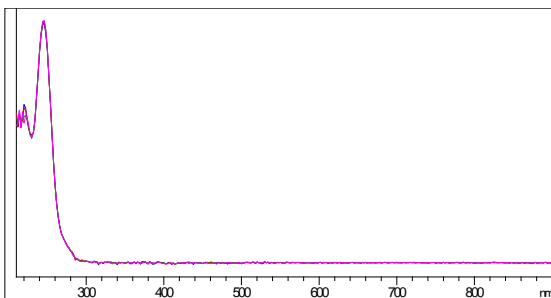
Compound 1

Compound 2

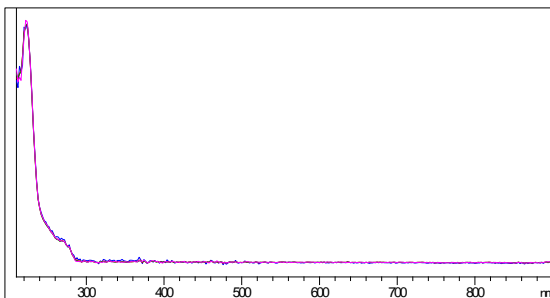


Compound 3

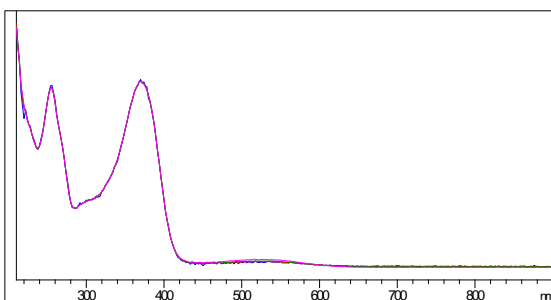
Compound 5



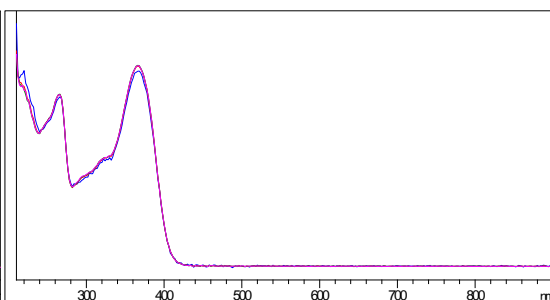
Compound 6



Compound 7



Compound 8



Compound 10

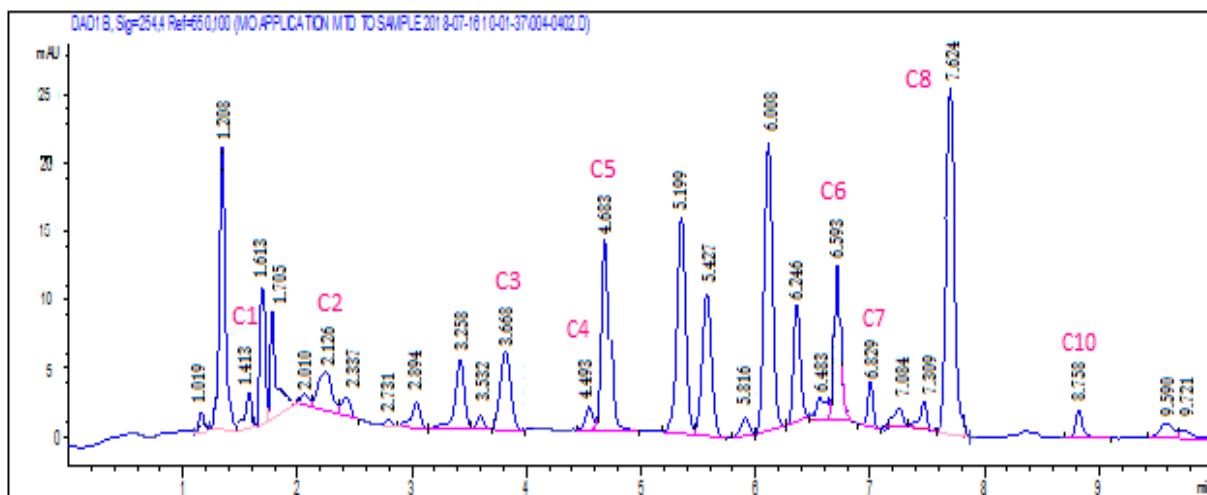
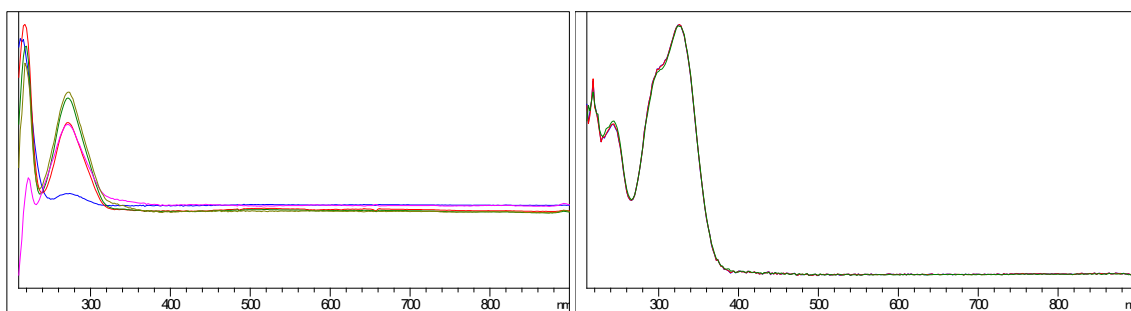


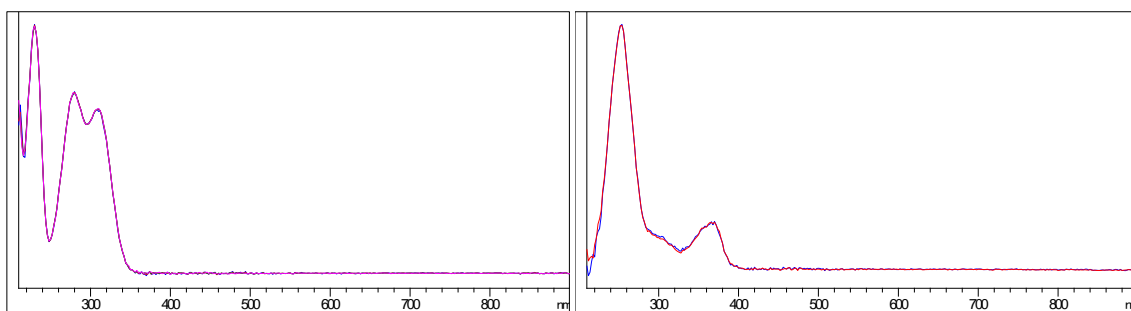
Figure S6: Chromatogram representing PRD1 separated using the validated method

UV-Vis Spectra of the compounds of interest identified in PRD1



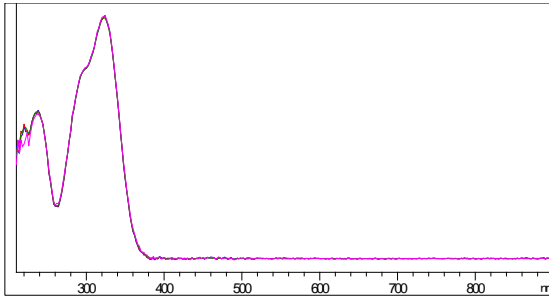
Compound 1

Compound 2

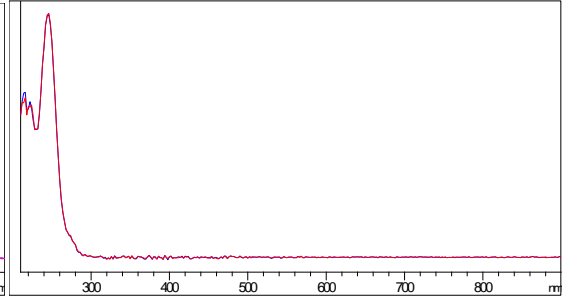


Compound 3

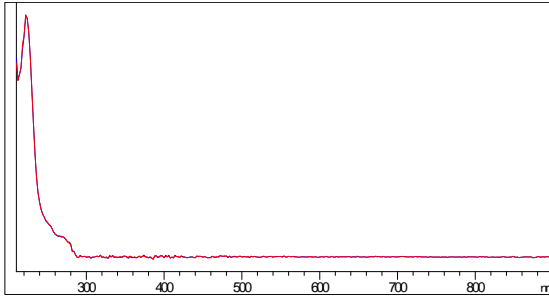
Compound 4



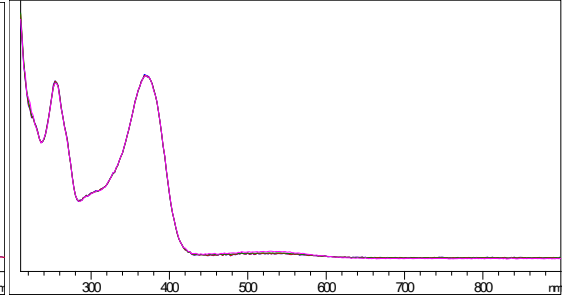
Compound 5



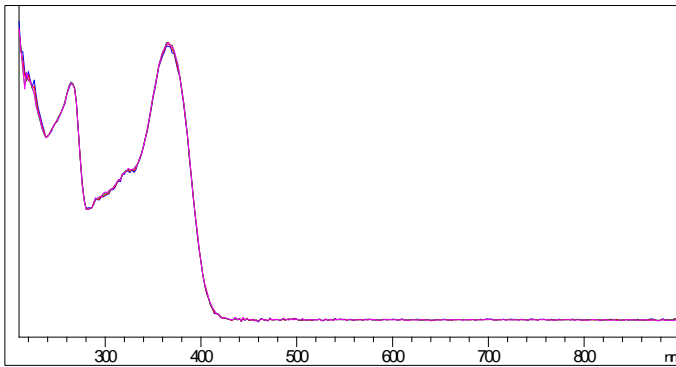
Compound 6



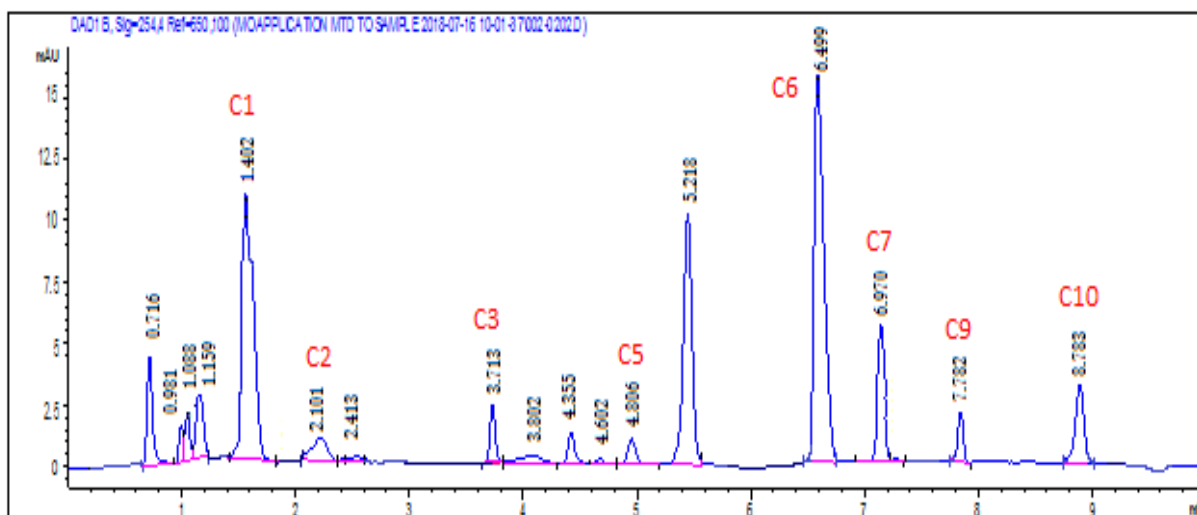
Compound 7



Compound 8

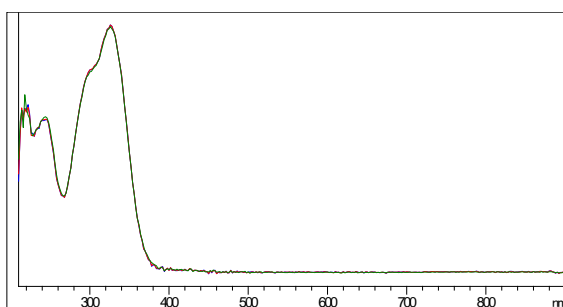


Compound 10

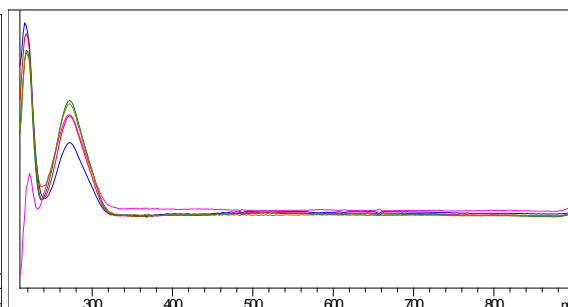


**Figure S7: Chromatogram representing S2 separated using the validated method**

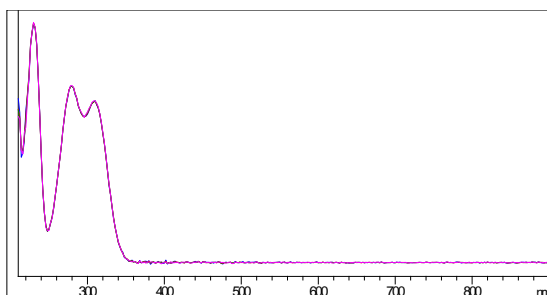
**UV- Vis Spectra of the compounds of interest identified in S2**



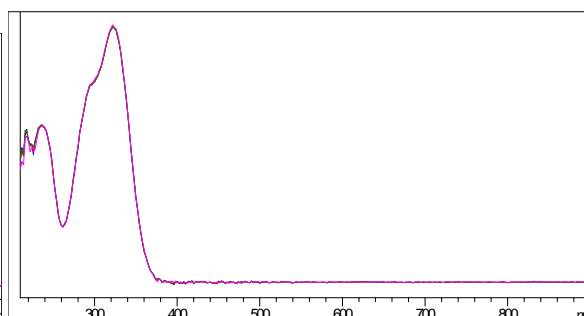
Compound 1



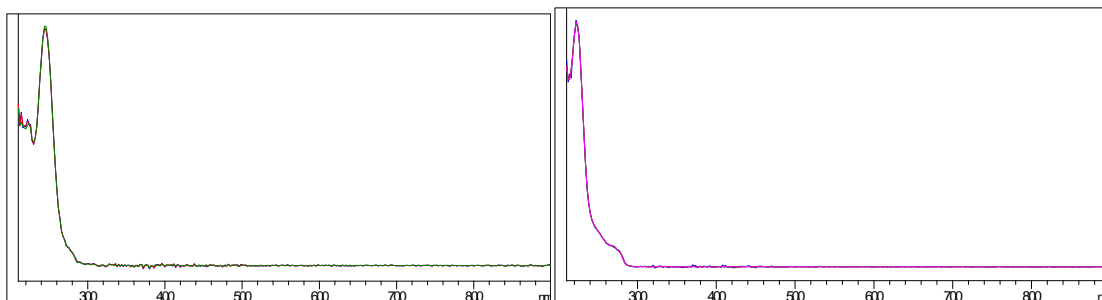
Compound 2



Compound 3

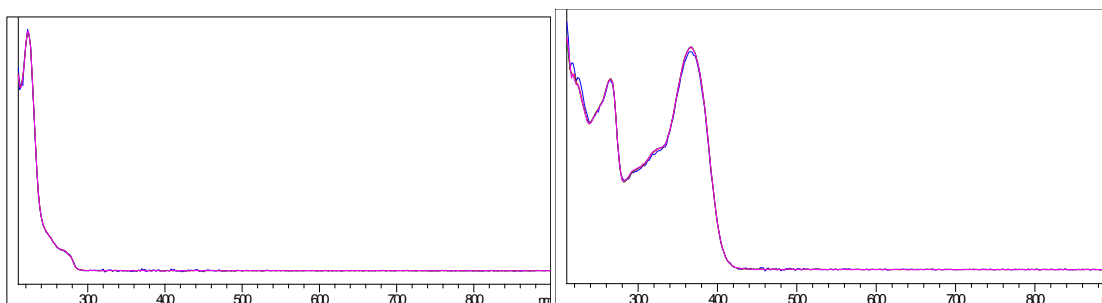


Compound 5



Compound 6

Compound 7



Compound 9

Compound 10

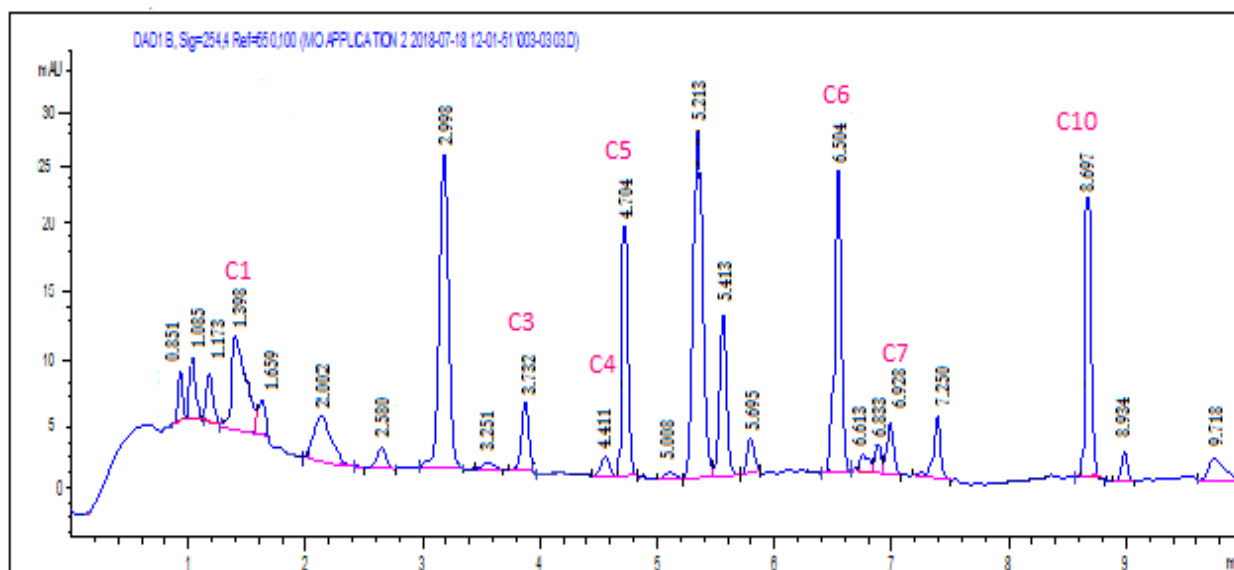
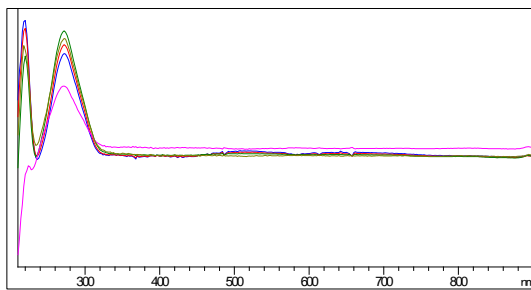


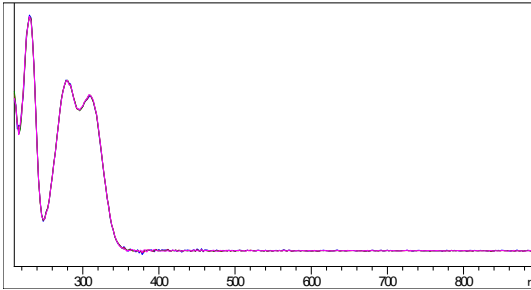
Figure S8: Chromatogram representing TB 7 separated using the validated method

UV- Vis Spectra of the compounds of interest identified in TB 7

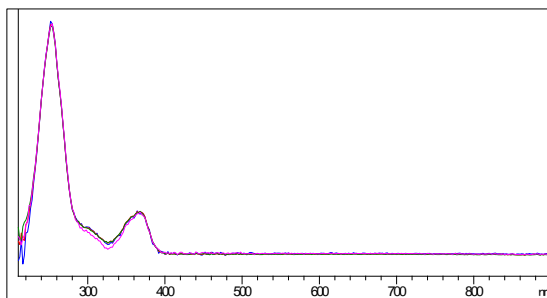




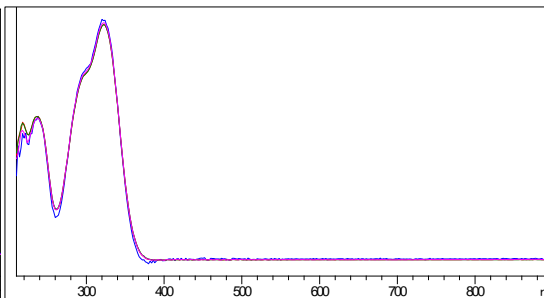
Compound 1



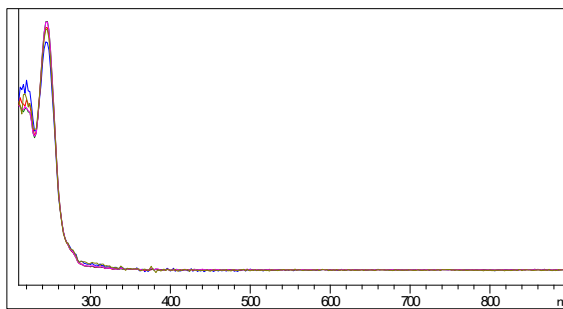
Compound 3



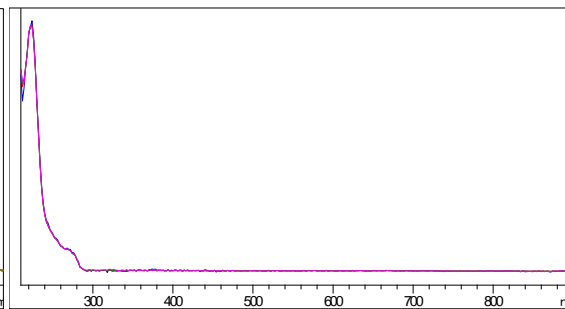
Compound 4



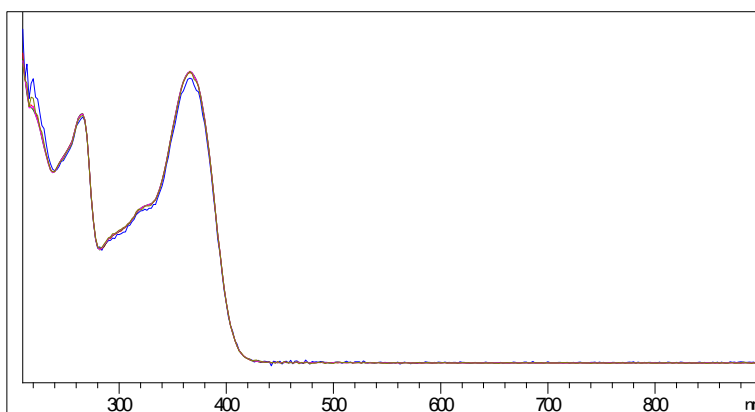
Compound 5



Compound 6



Compound 7



Compound 10