Concentrations of rosavins in dried root of *Rhodiola rosea* provided November 13, 2020 by ARRGO (LEE 173-20).

One *Rhodiola rosea* dried root material was provided by ARRGO (LEE 173-20) for analysis.

The sample was extracted (50 mg/mL in 80% methanol, 60°C, 3 hours), clarified by centrifugation and 5 μL of the supernatant was injected onto the LC/DAD apparatus. The sample was run in duplicate.

Signals identified by retention time for salidroside = rhodioloside, rosarin, rosavin, rosin and cinnamyl alcohol were obtained using an gradient HPLC separation coupled to DAD absorbance detection. The amounts of salidroside, rosarin, rosavin and rosin were estimated by comparison with pure standards obtained from ChromaDex, Santa Ana, Ca. The HPLC method is RHODALCD.M and the data is stored on the Phytovox system (20201113DA).

Table 1 presents the amounts obtained for the characteristic chemicals found in the extracts of *Rhodiola rosea*.

Table 1. Values obtained from DAD absorbance (260 and 276 nm) signals for 4 chemicals characteristic of *Rhodiola rosea*.

Sample	Salidroside % dry weight	Rosarin % dry weight	Rosavin % dry weight	Rosin % dry weight	Total Rosavins μg/mg dry weight
LEE-173-20-1	0.258	0.291	0.721	0.46	1.058
LEE-173-20-2	0.260	0.292	0.728	0.47	1.067

Table 2. Values obtained from DAD absorbance (260 nm) signals for 2 additional chemicals characteristic of *Rhodiola rosea*.

Sample	Tyrosol % dry weight	Cinnamyl alcohol % dry weight
LEE-173-20-1	0.003	0.057
LEE-173-20-2	0.003	0.058

Figure 1. Representative chromatographic trace of rhodiola standard 100 ug/mL, 10 uL. Absorbance at 250 nm and 276 nm.

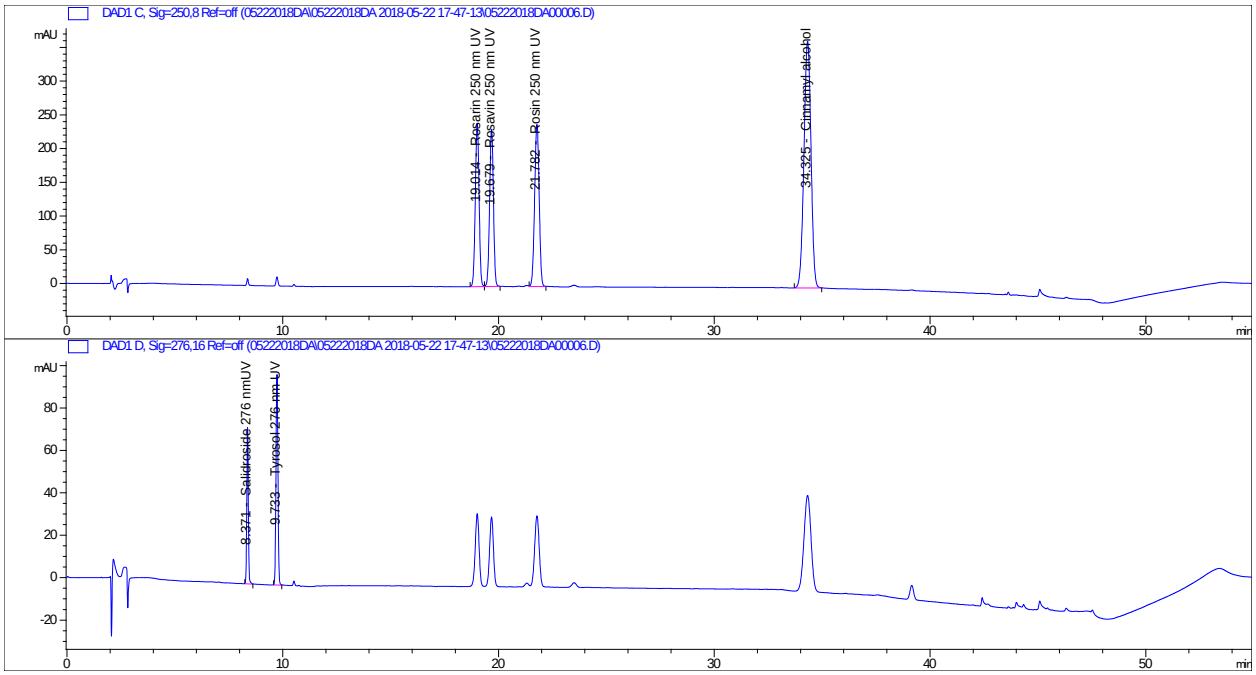
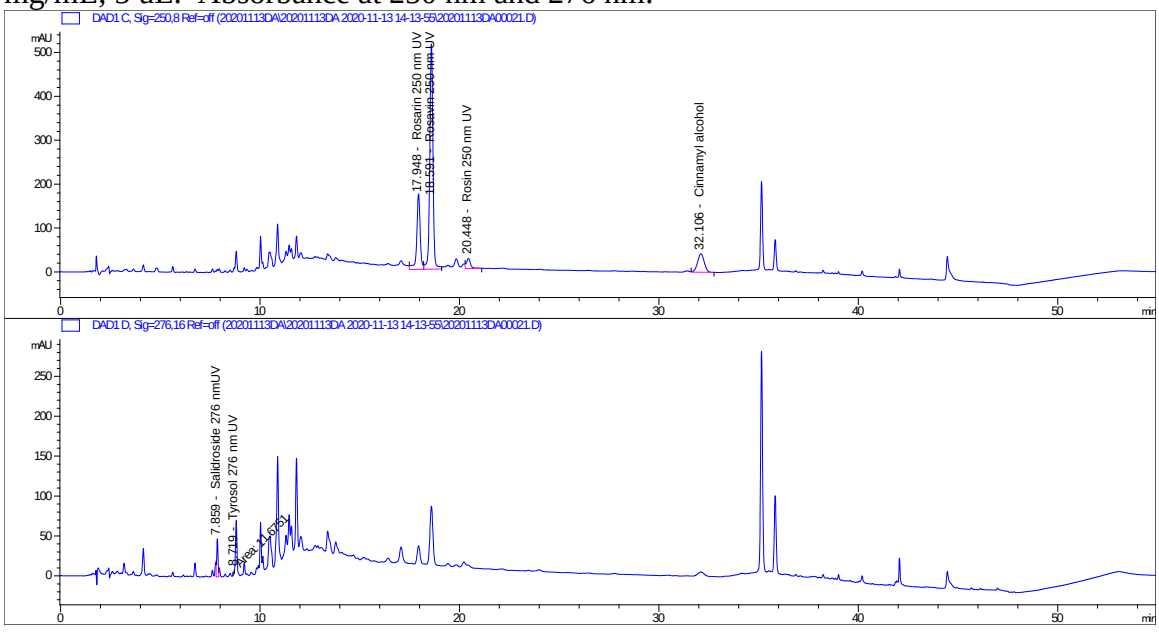


Figure 2. Representative chromatographic trace of LEE-173-20 rhodiola root sample 50 mg/mL, 5 uL. Absorbance at 250 nm and 276 nm.



Conclusions

The sample is a dry root of *Rhodiola rosea*. The values determined are about 1% total rosavins.

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