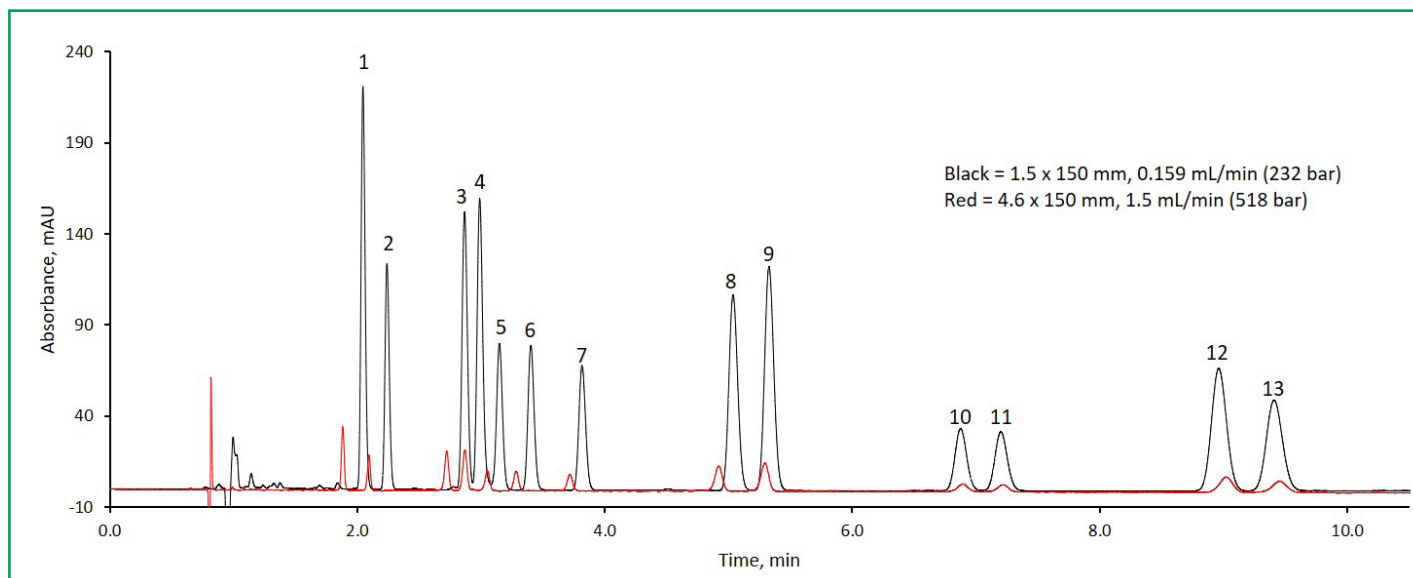




Sensitivity and Solvent Savings using a 1.5 mm ID Column with Cannabinoids

283-CN



PEAK IDENTITIES

- | | | | |
|----------|----------|-----------|----------|
| 1. CBDVA | 5. CBG | 9. CBN | 13. THCA |
| 2. CBDV | 6. CBD | 10. 9-THC | |
| 3. CBDA | 7. THCV | 11. 8-THC | |
| 4. CBGA | 8. THCVA | 12. CBC | |

TEST CONDITIONS:

Column: HALO 90 Å C18, 2.7 µm, 1.5 x 150 mm
Part Number: 9281X-702
Column: HALO 90 Å C18, 2.7 µm, 4.6 x 150mm
Mobile Phase A: Water/ 0.1% Formic Acid
Mobile Phase B: Acetonitrile/ 0.1% Formic Acid
Isocratic: 75% B
Flow Rate: 0.159 mL/min (1.5x150)
Flow Rate: 1.5 mL/min (4.6x150)

Temperature: 30 °C
Detection: UV 228 nm, PDA
Injection Volume: 0.5 µL
Sample Solvent: 75/25 ACN/ Water
Data Rate: 100 Hz
Response Time: 0.025 sec.
Flow Cell: 1 µL
LC System: Shimadzu Nexera X2

A separation of cannabinoids is performed on a HALO 90 Å C18 column. Switching from a 4.6 mm ID to a 1.5 mm ID column diameter increases overall sensitivity along with significantly reducing solvent consumption. The extra column volume has been reduced by optimizing the pre/post-column tubing as well as the flow cell. This makes the 1.5 mm ID column an ideal candidate for increased sensitivity without the investment into a specialized low flow HPLC system.

