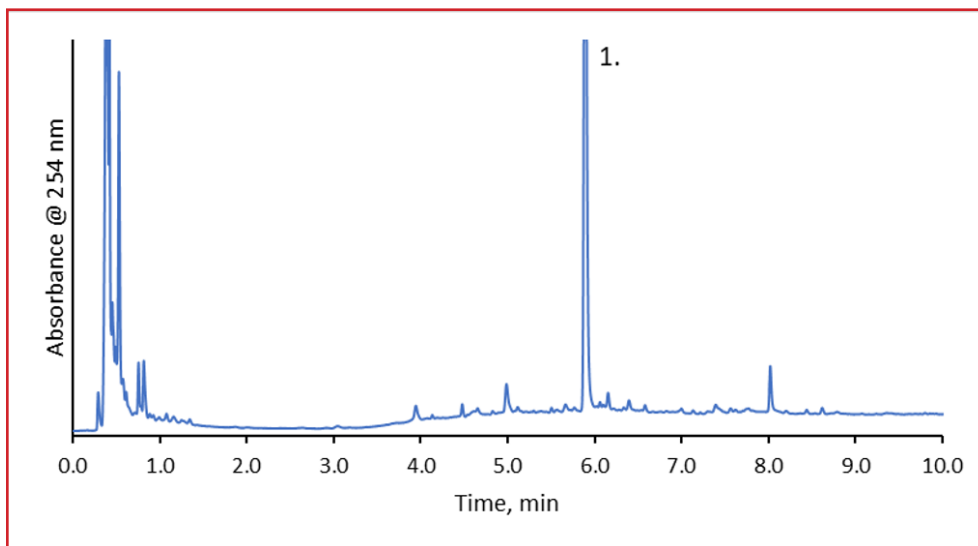




## Nicotine Analysis Using HALO® Elevate C18

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### PEAK IDENTITIES

1. Nicotine

### TEST CONDITIONS:

**Column:** HALO 120 Å Elevate C18, 2.7  $\mu\text{m}$ , 2.1 x 100 mm

**Part Number:** 92272-602

**Mobile Phase A:** Ammonium Hydroxide, pH: 10.15

**Mobile Phase B:** Acetonitrile

Gradient:	Time	%B
	0.0	5
	2.0	5
	10.0	45
	11.0	45
	12.0	5

**Flow Rate:** 0.4 mL/min

**Back Pressure:** 256 bar

**Temperature:** 30 °C

**Injection:** 0.5  $\mu\text{L}$

**Sample Solvent:** 95/5 Water/ ACN

**Wavelength:** PDA, 254 nm

**Flow Cell:** 1  $\mu\text{L}$

**Data Rate:** 100 Hz

**Response Time:** 0.05 sec.

**LC System:** Shimadzu Nexera X2

Nicotine is a naturally produced alkaloid found in several plants including tobacco. This analyte is highly addictive and can come in the form of a cigarette, patch, chewing tobacco, and even vaping oils. High pH mobile phases are ideal for analyzing nicotine due to the increase in retention and improved peak shape. (compared to low pH conditions) A cigarette is analyzed using a HALO® Elevate column under high pH conditions. Excellent peak shape and retention is achieved using a combination of ammonium hydroxide and acetonitrile.

