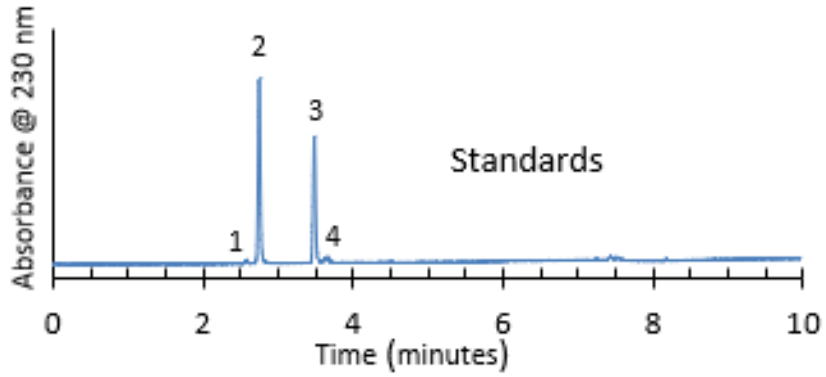
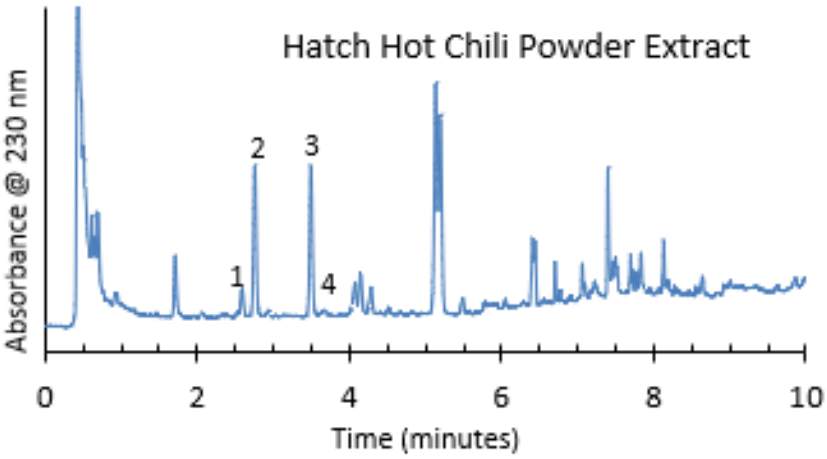
HPLC Analysis of Capsaicins in Chili Powder on Ascentis® Express C18, 2.7 µm





Peak Number	Compound
1	Capsaicin 1
2	Capsaicin 2
3	Dihydrocapsaicin 1
4	Dihydrocapsaicin 2

Conditions:

column: Ascentis® Express C18, 10 cm x 3 mm I.D., 2.7 µm
mobile phase: [A] Water; [B] Acetonitrile
gradient: 40% B to 60% B in 5 min; 60% B to 100% B in 2 min; hold at 100% B for 13 min.
flow rate: 0.8 mL/min
column temp.: 40 °C
detector: VWD, 230 nm
injection: 1 µL
sample: Capsaicins, varied concentration, acetonitrile

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Description:

Capsaicin and dihydrocapsaicin are irritants found in chili peppers. They are present in spices such as chili powder and paprika, which are frequently used in food for the sensation of heat that they provide. Capsaicin also has uses as an analgesic and in pepper spray. The heat from capsaicin is measured in Scoville units, though the Scoville test is subjective and HPLC is increasingly being used as an objective way to quantify capsaicin content in foods. The Ascentis® Express C18 is ideal for such separations, as shown in this application.

Materials:

Product Part Number	Description
53814-U	Ascentis® Express C18, 10 cm x 3 mm I.D., 2.7 µm
270733	Water
34851	Acetonitrile
V9130	Synthetic Capsaicin
M1022	Dihydrocapsaicin