

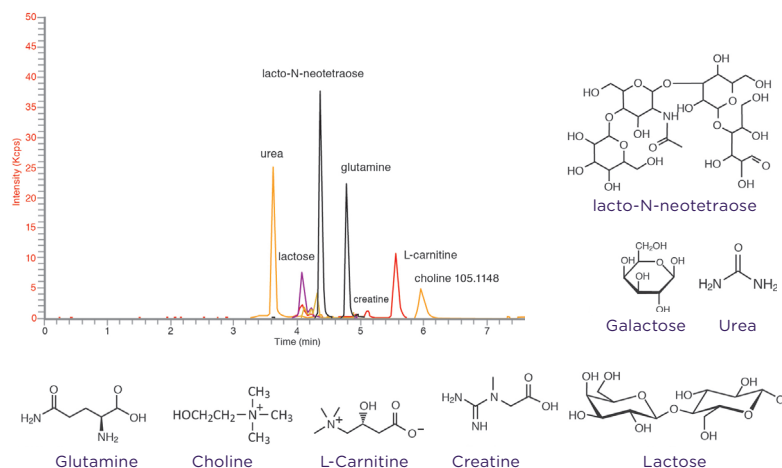
# Applications of Cogent TYPE-C™ Columns

## Food and Beverage Applications continued

For many other Food and Beverage applications go to [www.mtc-usa.com](http://www.mtc-usa.com) and click on Knowledge Base.

### Milk Extract using ANP

Figure 55.



#### Method Conditions

Column: **Cogent Diamond Hydride™**, 4µm, 100Å  
Catalog No.: 70000-15P-2

Dimensions: 2.1 x 150mm

Mobile Phase: A: DI H<sub>2</sub>O / 0.1% formic acid

B: Acetonitrile/ 0.1% formic acid

Gradient:	time (min.)	%B
	0	90
	1	90
	7	20
	11	20
	12	90

Post Time: 3 min

Injection vol.: 1µL

Flow rate:

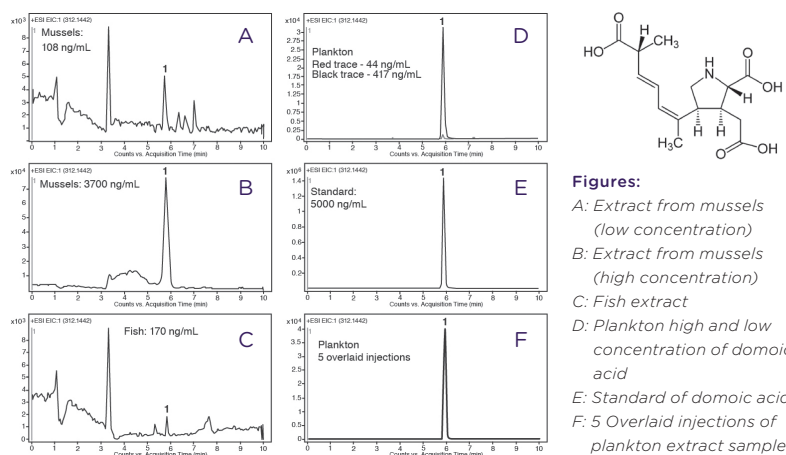
0.4mL/min

Detection: ESI - Pos - Perkin Elmer, Flexar SQ 300 mass spectrometer

Sample: Milk extract reconstituted in 65µL of 80% acetonitrile

### Domoic Acid in Seafood Samples by ANP

Figure 56.



#### Method Conditions

Column: **Cogent Diamond Hydride™**, 4µm, 100Å  
Catalog No.: 70000-15P-2

Dimensions: 2.1 x 150mm

Mobile Phase:

A: 50% MeOH/ 50% DI H<sub>2</sub>O/ 0.1% formic acid

B: Acetonitrile/ 0.1% formic acid

Gradient:	time (min.)	%B
	0	95
	7	30
	8	30
	10	95

Post Time: 5 min

Injection vol.: 1µL

Flow rate:

0.4mL/min

Detection: ESI - POS - Agilent

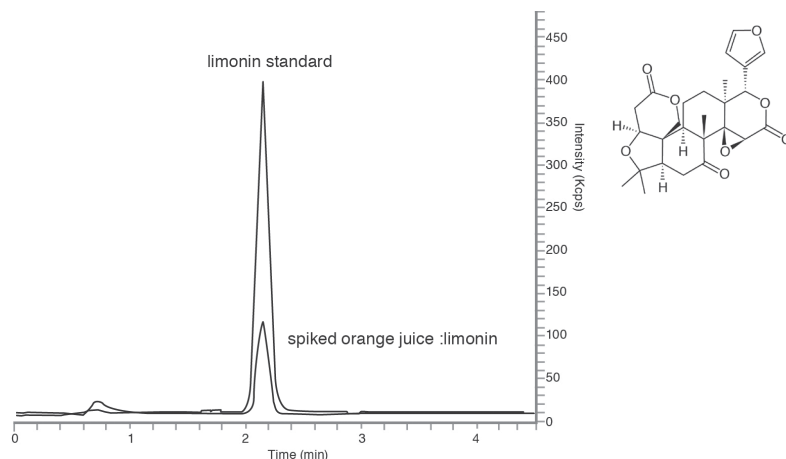
6210 MSD TOF MS

Samples: Samples from Dr. R.Kudela, Univ. of Calif., Santa Cruz, Dept. of Marine Sciences. Samples were injected as received

Peak: Domoic acid 312.1442m/z (M + H)<sup>+</sup>

### Limonin in Orange Juice by RP

Figure 57.



#### Method Conditions

Column: **Cogent Bidentate C18™**, 4µm, 100Å  
Catalog No.: 40018-15P-2

Dimensions: 2.1 x 150mm

Mobile Phase: 50% A: DI H<sub>2</sub>O / 0.1% formic acid

50% B: Acetonitrile/ 0.1% formic acid

Temperature: 25°C

Injection vol.: 1µL

Flow rate: 0.5mL/min

Detection: ESI - Pos - Perkin Elmer, Flexar SQ 300 mass spectrometer

Samples: Standard: 5ppm of limonin in 20% DI water +0.1% formic acid/40% acetonitrile/ 40% methanol. Spiked orange juice preparation: Orange juice was spiked with 2.5ppm limonin, filtered, and injected.

Peaks: 1. Limonin standard, 471.2m/z [M+H]<sup>+</sup>

2. Spiked orange juice: limonin, 471.2m/z [M+H]<sup>+</sup>