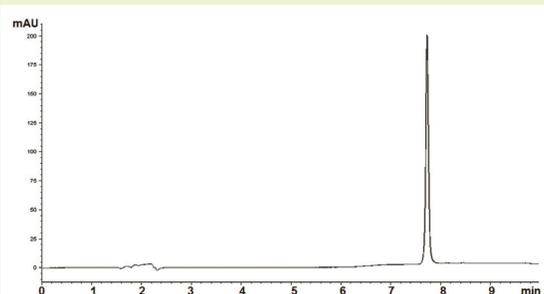
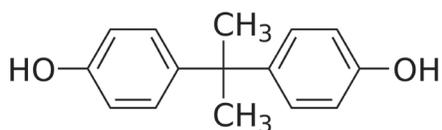


Fast and Precise Bisphenol A (BPA) Method

Toxic substance found in consumer products



Overlay of 5 runs



Note: BPA is a synthetic compound widely used in industry as an epoxy resin, a polycarbonate, and an antioxidant in polyvinyl chloride (PVC) plastics. Epoxy resins are used as inner surface coatings for food and beverage cans. Polycarbonates are used in fabrication of plastic food containers (even infant feeding bottles). PVC is in a variety of products which come in contact with food. Even at low concentrations, chronic exposure to BPA is of toxicological concern. It has estrogen-like effects and causes a variety of adverse symptoms (e.g. genital malformations, testicular abnormalities, impairment in fertility or sexual functions).

Method Conditions

Column: Cogent Bidentate C8™, 4µm, 100Å

Catalog No.: 40008-75P

Dimensions: 4.6 x 75 mm

Mobile Phase: A: DI H₂O / 0.1% formic acid
B: Acetonitrile / 0.1% formic acid

Gradient:	time (min.)	%B
	0	30
	2	30
	6	90
	8	90
	9	30

Injection vol.: 5µL

Flow rate: 0.5 mL/min

Detection: UV 275 nm

Peak: Bisphenol A

t₀: 0.9 min

Discussion

Bisphenol A (BPA) is a challenging compound for analysis by HPLC. Biological monitoring of this environmental and health toxicant is a necessary process for surveillance as well as risk assessment. As can be seen from the accompanying chromatograms, a Cogent Bidentate C8 column was an excellent choice for the analysis of BPA. The peak shape is symmetrical with high efficiency.

The repeatability of the analysis is also remarkable as can be seen in the figure, which shows five overlaid injections of the compound. In addition, the method equilibrates rapidly with only 1 minute post time after the gradient.