DETECT AT ULTRA-TRACE LEVELS

Ultra-trace level detection is essential in liquid chromatography and is made possible with the Model 440 and 441 Absorbance Detectors because of the Taper Cell™ design. Separations may be made, yet go unobserved due to insufficient detector sensitivity.

An example is the observation of 9-cis-retinal as a photochemical reaction product of all-trans-retinal, under a set of reaction conditions in which it previously had not been detected (1).

This observation was possible because of the extraordinary sensitivity of the WATERS™ Model 440 Absorbance Detector.

This Model 440 permits accurate quantitation at low levels, as recently demonstrated by Lawrence in the detection of pesticides at ppb levels (2) shown in the figure below.

The Model 440 combines the industry's highest baseline sensitivity with negligible long-term drift. Its virtually noise-free unattenuated output signal is ideal for detector-to-computer interfacing.

Clearly, the Model 440 is the detector of choice for the analytical laboratory.

Mobam in Corn
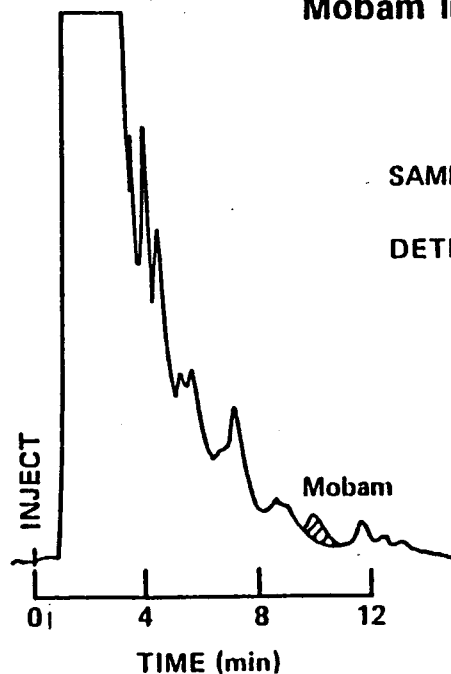
SAMPLE: Corn spiked with 0.004 ppm Mobam

DETECTOR: Model 440, 254 nm, 0.001 AUFS

INJECT

Mobam

0   4   8   12

TIME (min)

(1) Waddell, W. H., Hopkins, D. L., JACS, 99, 6457 (1977). Footnote 15
(2) Lawrence, J. F., J. Ag & Food Chem., 25, 211 (1977)