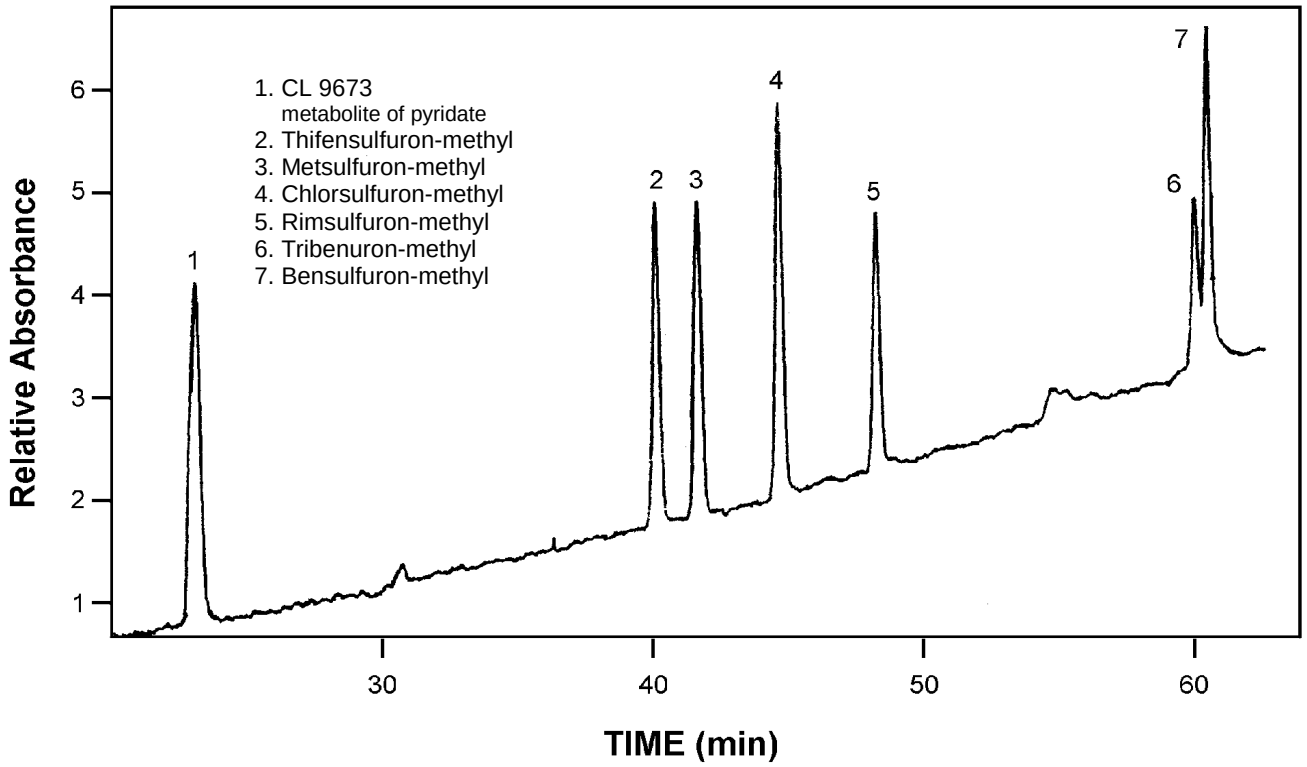
HIGH-RESOLUTION SEPARATION OF SULFONYLUREA PESTICIDES



Courtesy of Dr. rer.nat. Claus Schlett, Gelsenwasser AG

ZORBAX® SB-C18 (3.0 x 250 mm) (P/N: 880975.302)

Mobile Phase: A: 0.01% Acetic Acid in H_20, B: Acetonitrile, 0.01% Acetic Acid

Injection volume 50µl, 0.5 mL/min, 40°C, Detect. UV(230, 270 nm)

Gradient Time	%A	%B
2	90	10
70	55	45
85	55	45
89	10	90
94	10	90
95	90	10
110	90	10

SAMPLE PREPARATION

The sulfonylureas are extracted from water as follows:

1. *The samples (1L) are filtered through a glass-fiber filter and are brought to a pH of 3-4 using hydrochloric acid. Then, 10 ml of methanol are added.*
2. *Solid-phase extraction is carried out using 2 g of sorbent.*
3. *The cartridges are conditioned with 6 bed-volumes of H_2O (adjusted to pH 3-4) followed by 6 bed-volumes of methanol.*
4. *The samples are passed through the cartridge at a rate not exceeding 500 ml/hr.*
5. *The cartridges are dried for 45 min with nitrogen gas at a rate of 90 ml/min.*
6. *The samples are eluted from the extraction column using acetone (3 washes of 3 ml each).*
7. *The acetone is carefully evaporated from the eluted sample, and the sample re-dissolved in 100µl acetonitrile, 400µl H_2O, 0.01% acetic acid.*

HIGHLIGHTS

- *An example of excellent selectivity and peakshape for a new family of pesticides.*
- *Zorbax SB-C18 has a sterically protected, bonded phase that permits reliable results run-after-run.*

ACKNOWLEDGMENT
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