

ELECTRONIC SUPPLEMENTARY MATERIAL

Determination of eight fungicides in tanned leather by liquid chromatography with mass spectrometry and with diode array spectrophotometric detection

Francisco Javier Acevedo-Aguilar[§], Israel Enciso Donis[§], Kazimierz Wrobel, Alma Rosa Corrales Escobosa, Luis Mario Magaña Maldonado and Katarzyna Wrobel*

Chemistry Department, Division of Natural and Exact Sciences, University of Guanajuato, L. de Retana 5, 36000 Guanajuato, Mexico

[§] Both authors contributed equally to this work

* Corresponding author. E-mail address: katarzyn@ugto.mx (Katarzyna Wrobel)

Fig. 1S. Typical HPLC-DAD chromatograms obtained for (a) mixed standard solution containing BNPD, PCMC, OPP, PRO 16 mg L⁻¹ each; CBZ 5.0 mg L⁻¹; TCMTB, OIT 8.0 mg L⁻¹ each and IS 5.0 mg L⁻¹ and for the extract of sample 11 without standard addition and after three-point standard addition (details given in section 2.4): (b) analytical wavelength 220 nm, (c) 287 nm and (d) 330 nm.

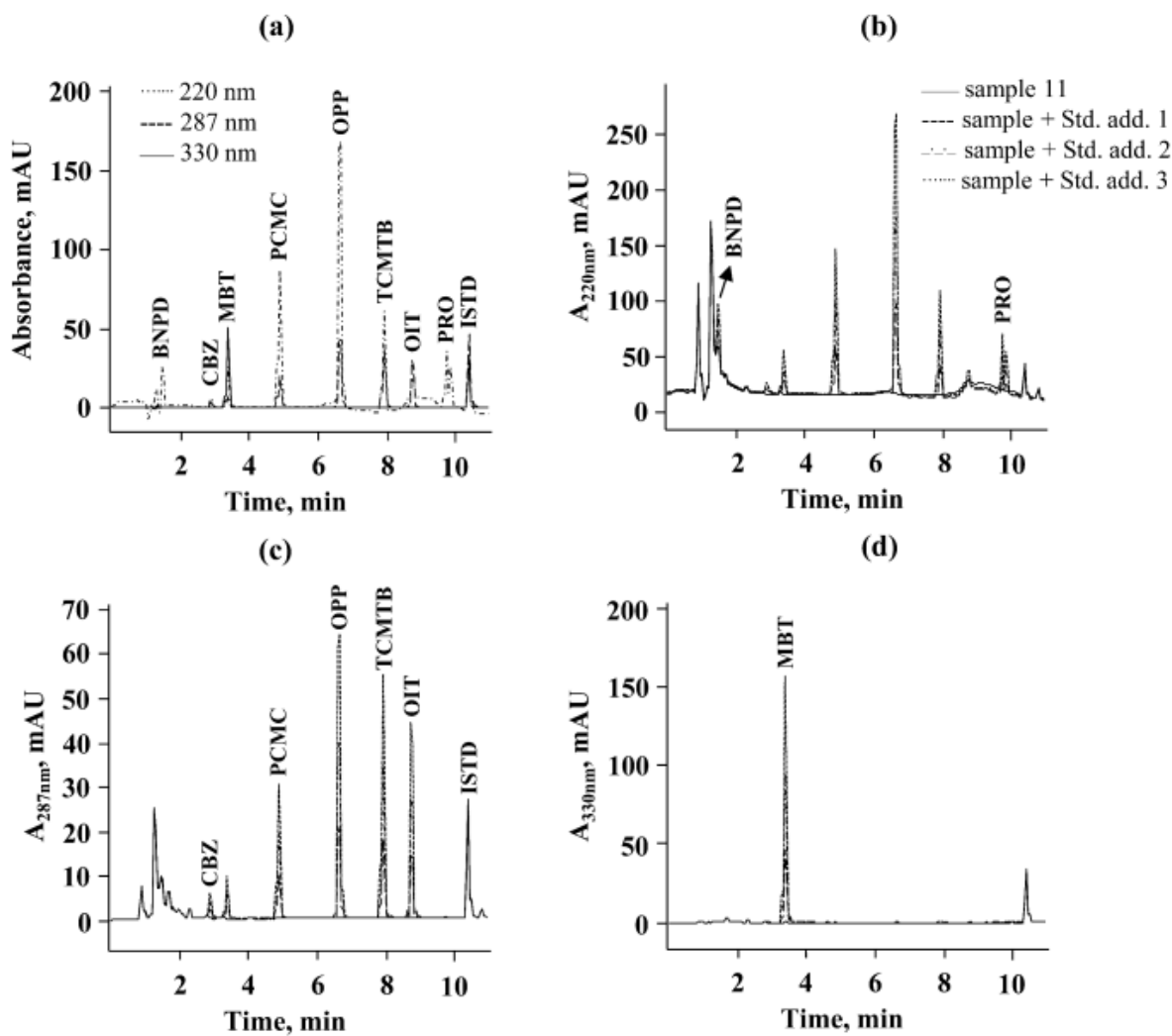


Table 1S. Analytical results obtained for ten random leather samples using two proposed procedures: HPLC-ESI-ITMS and HPLC-DAD. Mean values with respective standard deviations are presented based on three replicates.

sample	Fungicide concentration, mean value \pm SD, $\mu\text{g g}^{-1}$ (n=3)					
	CBZ	MBT	PCMC	OPP	TCMTB	OIT
HPLC-ESI-ITMS						
1	146 \pm 3	< LOQ	< LOQ	< LOQ	< LOQ	< LOQ
2	< LOQ	20.2 \pm 1.9	< LOQ	< LOQ	75.6 \pm 1.8	225 \pm 2
3	< LOQ	< LOQ	< LOQ	< LOQ	< LOQ	526 \pm 8
4	< LOQ	< LOQ	24.5 \pm 1.3	13.6 \pm 1.2	< LOQ	202 \pm 3
5	< LOQ	21.6 \pm 2.2	63.9 \pm 1.2	22.7 \pm 1.1	114 \pm 2	< LOQ
6	< LOQ	< LOQ	120 \pm 1	126 \pm 2	< LOQ	14.9 \pm 0.9
7	< LOQ	< LOQ	38.6 \pm 1.0	< LOQ	41.3 \pm 1.8	385 \pm 4
8	103 \pm 2	< LOQ	< LOQ	< LOQ	< LOQ	34.0 \pm 1.6
9	< LOQ	26.8 \pm 0.9	< LOQ	< LOQ	476 \pm 6	131 \pm 2
10	42.8 \pm 1.3	52.4 \pm 1.2	< LOQ	< LOQ	12.6 \pm 1.1	6.15 \pm 1.1
HPLC-DAD						
1	164 \pm 3	< LOQ	< LOQ	< LOQ	< LOQ	< LOQ
2	< LOQ	26.0 \pm 0.6	< LOQ	< LOQ	78.9 \pm 1.6	205 \pm 3
3	< LOQ	< LOQ	< LOQ	< LOQ	< LOQ	497 \pm 7
4	< LOQ	< LOQ	32.6 \pm 0.2	18.3 \pm 0.3	< LOQ	178 \pm 2
5	< LOQ	21.9 \pm 0.5	65.6 \pm 0.6	39.0 \pm 0.9	140 \pm 0.1	< LOQ
6	< LOQ	< LOQ	132 \pm 2	124 \pm 2	< LOQ	15.5 \pm 0.5
7	< LOQ	< LOQ	41.7 \pm 0.6	< LOQ	49.4 \pm 1.1	337 \pm 7
8	108 \pm 2	< LOQ	< LOQ	< LOQ	< LOQ	29.3 \pm 1.0
9	< LOQ	29.3 \pm 0.6	< LOQ	< LOQ	453 \pm 7	113 \pm 4
10	52.1 \pm 0.5	40.6 \pm 0.5	< LOQ	< LOQ	10.5 \pm 0.2	7.72 \pm 0.12