

CHEM 3590

Nov. 5 2018

**Case studies using
chromatography**

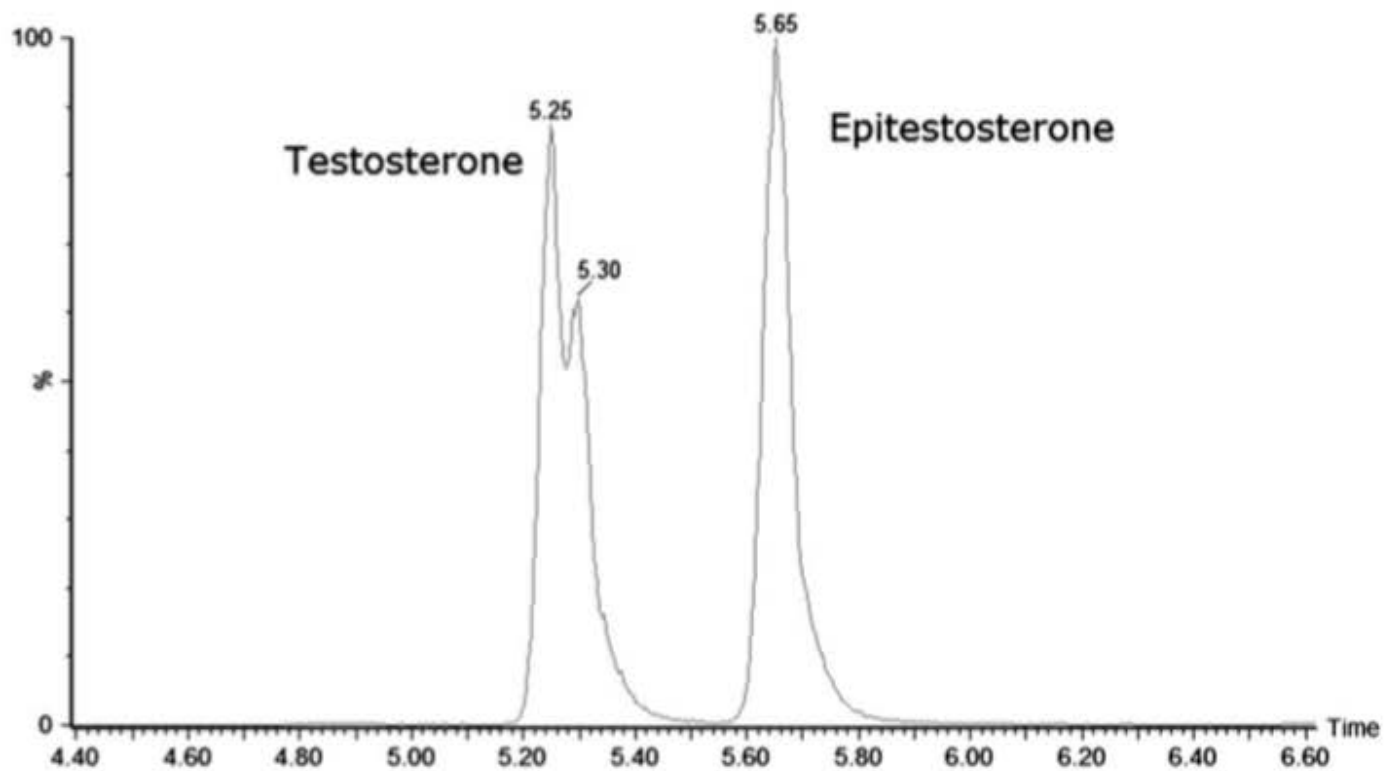
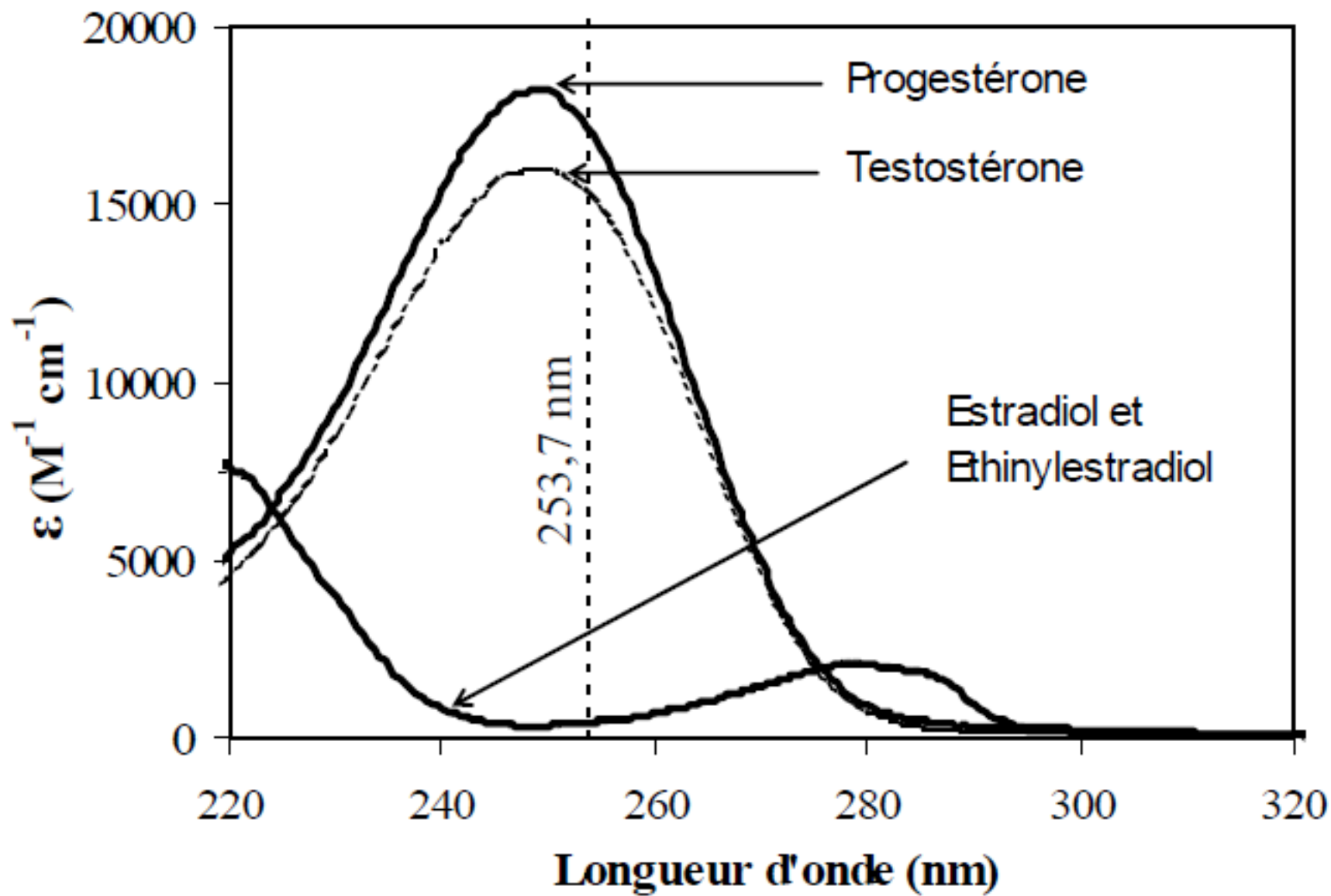


Figure 1. Total ion chromatogram of testosterone-MO and epitestosterone-MO in pooled gelding urine spiked at a concentration of 20 ng/mL.



Specimens of steroid hormones	Studied concentrations ($\mu\text{g/ml}$)	Fluorescence maxima (nm) and their ratio	Relative fluorescence quantum yield
Estradiol	25-100	305	$1,07 \cdot 10^{-1}$
Estriol	25-100	307	$1,16 \cdot 10^{-1}$
Estrone	25-100	311, 426 24:1	$5,2 \cdot 10^{-3}$
Dehydroepiandrosterone	24-167	410	$8,0 \cdot 10^{-6}$
Dehydroepiandrosterone sulphate	24-150	378	$6,0 \cdot 10^{-2}$
Androstenedione	24-111	410	$8,5 \cdot 10^{-6}$
Testosterone	24-70	325	$2,9 \cdot 10^{-6}$
5α -dihydrotestosterone	25-100	330	$3,0 \cdot 10^{-6}$
Progesterone	20-180	380, 475	$\sim 10^{-6}$
17α -hydroxyprogesterone	20-180	16:1	
Cortisol	20-180		
Corticosterone	20-180		
Deoxycorticosterone	20-180		
Aldosterone	40-200	380, 475 16:1	$\sim 10^{-6}$
Cortisone	38-190	405	$\sim 10^{-6}$

RT: 9.95 - 21.01

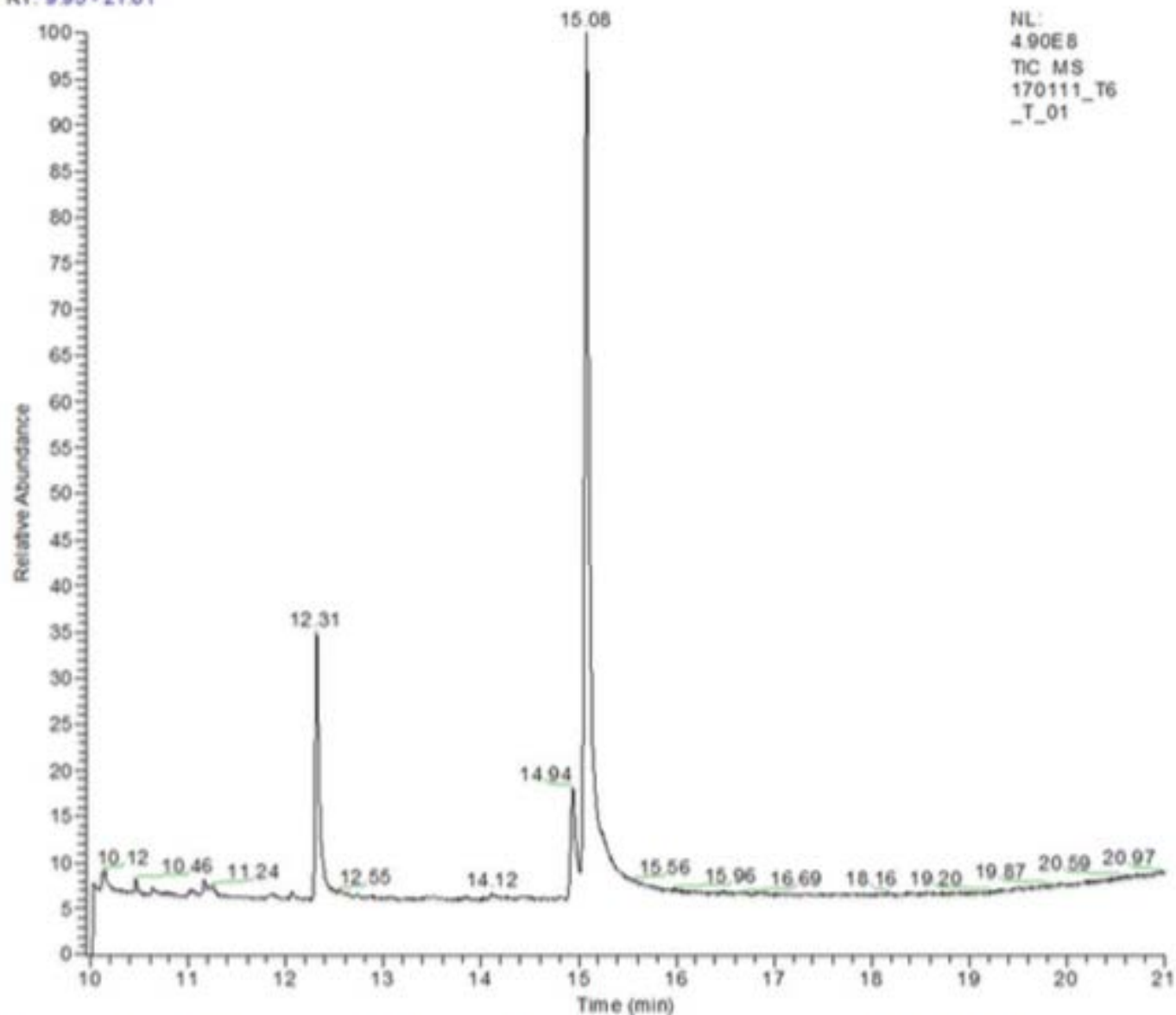


Figure 4b. Q Exactive GC total ion chromatogram of TESTO Fraction (24 hours post-administration).

