

## Nalidixic Acid Antibiotics by LC-MS

---

Waters Corporation



This is an Application Brief and does not contain a detailed Experimental section.

---

### Abstract

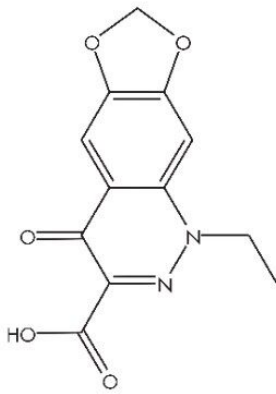
This application brief demonstrates analysis of nalidixic acid antibiotics by LC-MS.

---

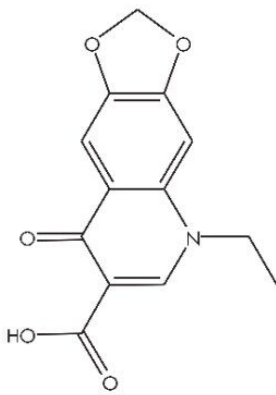
## Introduction

The compounds used in this study are –

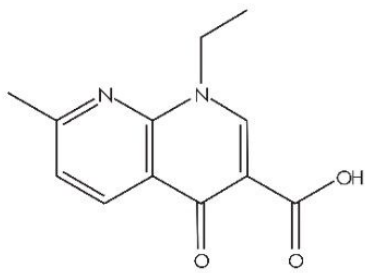
Compound	MW
1. Cinoxacin	262.2
2. Oxolinic Acid	261.2
3. Nalidixic Acid	232.2



Cinoxacin



Oxolinic acid



Nalidixic acid

---

## Experimental

### LC Conditions

Column:	Atlantis dC <sub>18</sub> , 2.1 x 20 mm <i>IS</i> , 3.0 µm, (p/n: 186002058)
Mobile phase A:	Water
Mobile phase B:	Methanol
Mobile phase C:	1% HCOOH in Water
Flow rate:	0.4 mL/min
Injection volume:	2 µL
Sample concentration:	10 µg/mL
Temperature:	30 °C
Instrument:	Alliance 2795 and Waters ZQ

## Gradient

Time (min)	Profile		
	%A	%B	%C
0.0	50	40	10
1.0	30	60	10

## MS Conditions

Waters ZQ

ES+ capillary (kV): 3.5

Waters ZQ

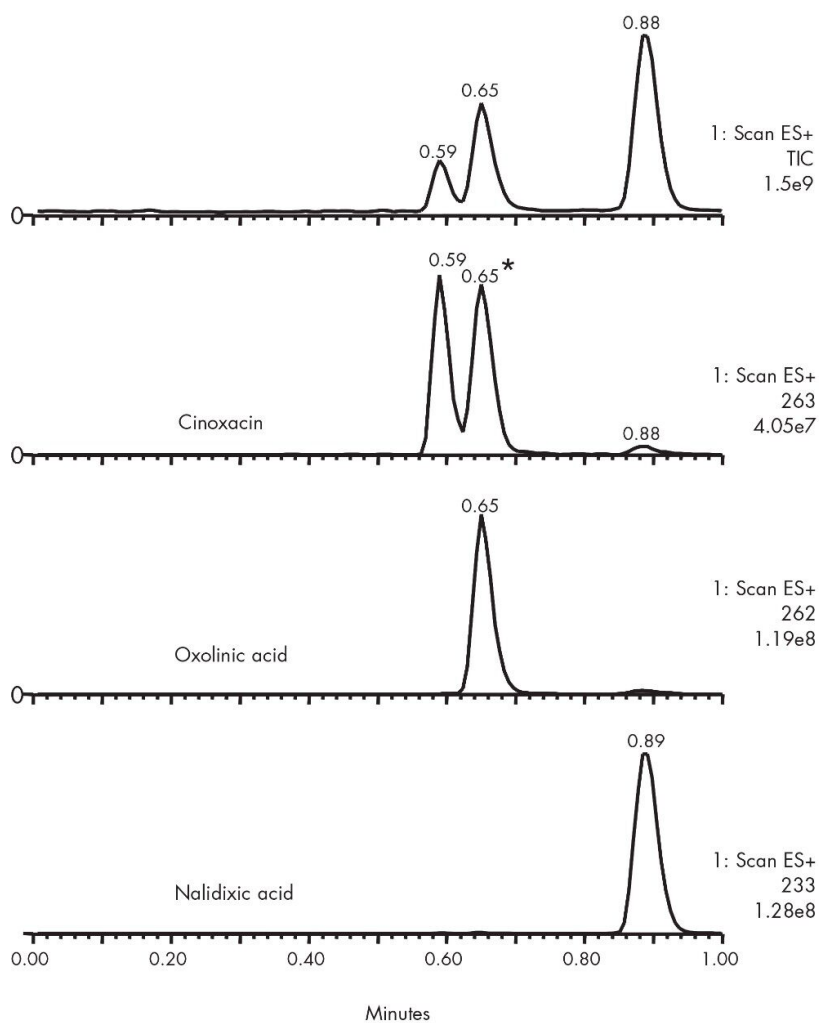
Cone (V):	5
Extractor:	3
RF lens:	0.1
Source temp. (°C):	150
Desolvation temp. (°C):	400
Cone gas flow (L/Hr):	50
Desolvation gas fLow(L/Hr):	500
LM resolution:	15
HM resolution:	15
Ion energy:	0.5
Multiplier (V):	650

---

## Results and Discussion

The top figure is the total ion current, followed by the extracted ion signals for each of the three analytes.

\*The "extra" peak in the cinoxacin panel is the isotope from oxolinic acid.



---

## Featured Products

Alliance HPLC System <<https://www.waters.com/534293>>

WA31787.18, June 2003

