



## Steroids

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Waters Corporation



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

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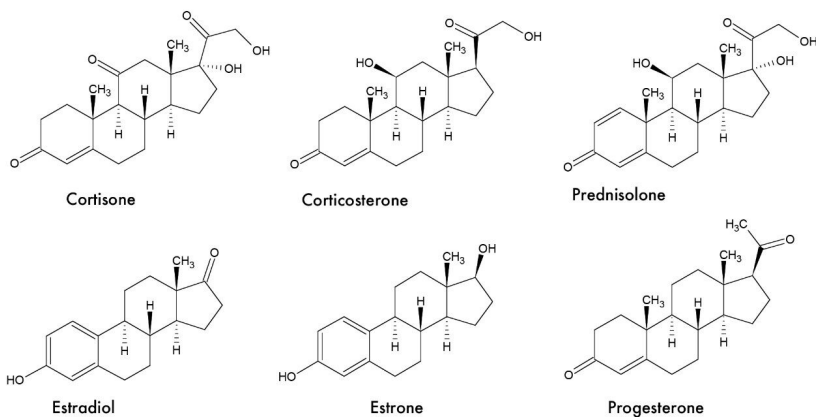
## Abstract

This application brief demonstrates analysis of steroids using Sunfire C<sub>18</sub> and C<sub>8</sub> Columns.

## Introduction

The compounds analysed in this study using Sunfire C<sub>18</sub> Columns are -

| Compounds         | USP tailing |
|-------------------|-------------|
| 1. Prenisolone    | na          |
| 2. Cortisone      | na          |
| 3. Corticosterone | 0.99        |
| 4. Estradiol      | 1.05        |
| 5. Estrone        | 1.04        |
| 6. Progesterone   | 0.97        |



The compounds analysed in this study using Sunfire C<sub>8</sub> Columns are -

| Compounds          | USP tailing |
|--------------------|-------------|
| 1. Prenisolone     | na          |
| 2. Cortisone       | na          |
| 3. Corticosterone* | 0.99        |
| 4. Estradiol*      | 0.96        |
| 5. Estrone         | 0.97        |
| 6. *               | 0.92        |

\*stock solution prepared in acetonitrile

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## Experimental

### Conditions

|                       |  |
|-----------------------|--|
| Column:               | SunFire C <sub>18</sub> 4.6 x 20 mm <i>IS</i> , 3.5 µm |
| Part number:          | 186002549  |
| Mobile phase A:       | Water  |
| Mobile phase B:       | Acetonitrile   |
| Flow rate:            | 3.0 mL/min   |
| Injection volume:     | 10 µL  |
| Sample concentration: | 10 µg/mL in water                                      |
| Temperature:          | 30 °C  |

Detection: UV @ 220 nm

Instrument: Alliance 2695 with 2996 PDA

## Gradient

| Time<br>(min) | Profile |    |
|---------------|---------|----|
|               | %A      | %B |
| 0.0           | 80      | 20 |
| 4.0           | 36      | 64 |

## Conditions

Column: SunFire C<sub>8</sub> 4.6 x 20 mm *IS*, 3.5 µm

Part number: 186002699

Mobile phase A: Water

Mobile phase B: Acetonitrile

Flow rate: 3.0 mL/min

Injection volume: 10 µL

Sample concentration: 10 µg/mL in water

Temperature: 30 °C

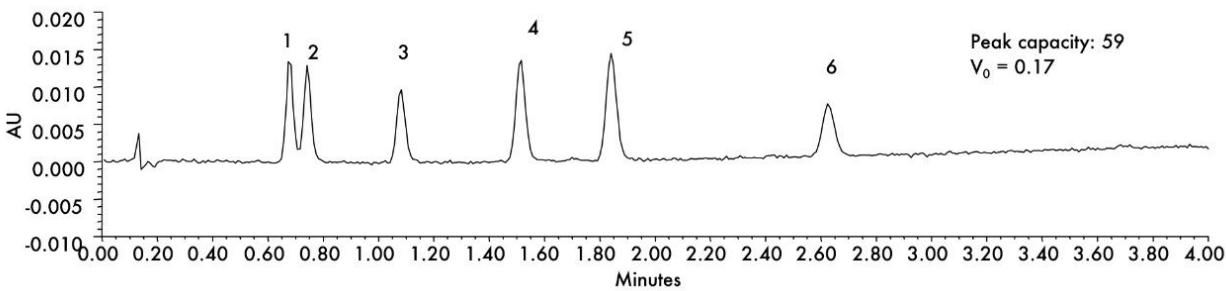
Detection: UV @ 220 nm

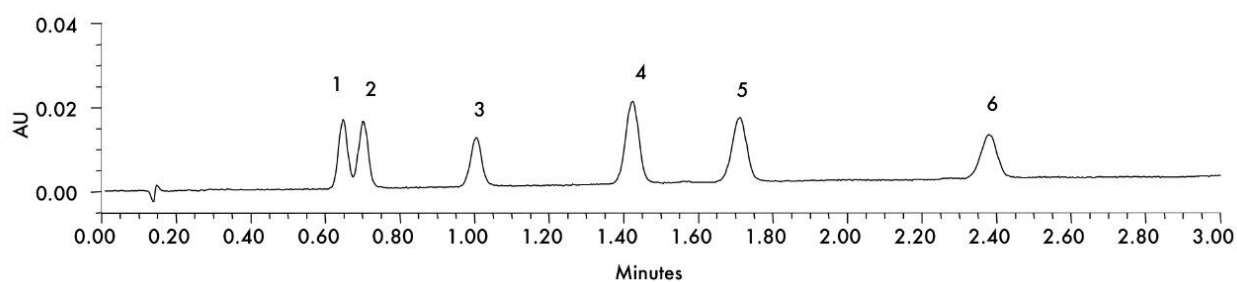
Instrument: Alliance 2695 with 2996 PDA

Gradient

| Time<br>(min) | Profile |    |
|---------------|---------|----|
|               | %A      | %B |
| 0.0           | 80      | 20 |
| 4.0           | 40      | 60 |

Results and Discussion





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

WA41900, March 2005