### Waters™



## Diltiazem HCL- Isolation of Impurities, Transfer from Analytical to Prep Columns



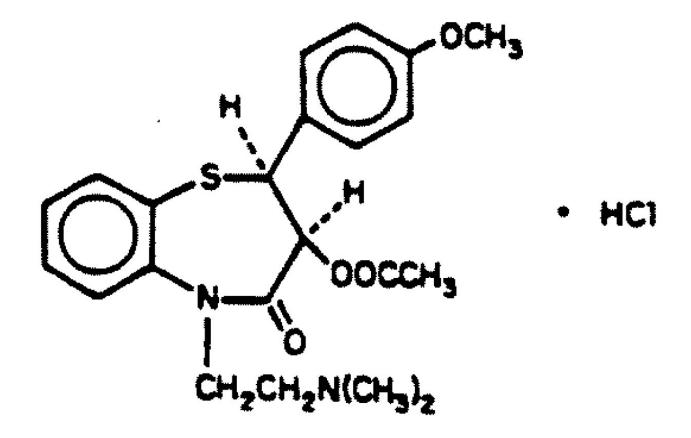
This is an Application Brief and does not contain a detailed Experimental section.

#### Abstract

This application brief demonstrates the analysis of Diltiazem HCL impurities using Symmetry Columns.

#### Introduction

The compound analyzed in this study is diltiazem HCL.



# 1. Diltiazem Hydrochloride

Experimental

**HPLC** Method

Column:

A. Symmetry  $C_{18}$ , 3.9 x 150 mm, 5  $\mu m$ 

B. Symmetry Prep  $C_{18},\,7.8~x\,150$  mm, 7  $\mu m$ 

C. Symmetry Prep  $C_{18}$ , 19 x 150 mm, 7  $\mu m$ 

Part numbers: A. WAT046980

B. WAT066288

C. WAT066240

Mobile phase: Acetonitrile/0.1% TFA in water 30:70

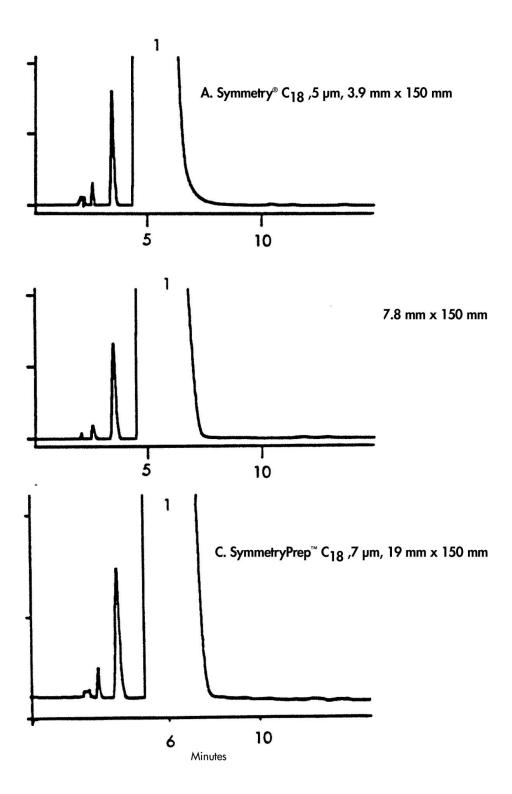
Flow rates:

A. 0.7 mL/min B. 2.8 mL/min C. 16.6 mL/min

Injection volume: Diltiazem: A. 0.5 mg B. 2.0 mg C. 11.9 mg

Detection: UV @ 280 nm

#### Results and Discussion



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