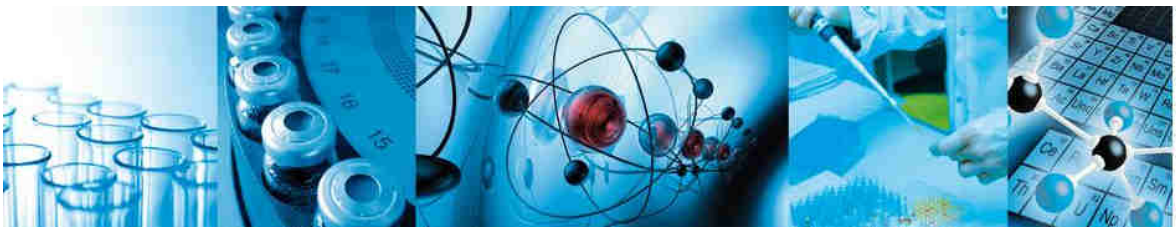


Enantiomeric Separation of Propranolol with Cyclodextrins as Chiral Selector

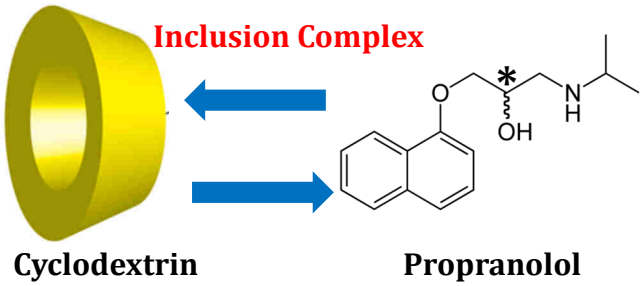
Capillary Electrophoresis is a powerful analytical technique for chiral analysis.

INTRODUCTION

Racemic Propranolol is a medication of the beta-blocker type very useful to treat cardiovascular diseases. The S(-)-enantiomer is approximatively 100 times more active and more slowly metabolized than the R(-)-enantiomer. In this application note, we use the Wyn-CE Capillary Electrophoresis system, for the propranolol chiral separation.

STANDARD AND REAL ANALYSIS
Buffer : Phosphate buffer + ethanolamine + CD, pH 3.0
Capillary : bare-fused silica, L = 35 cm, l = 27 cm, ID = 50 µm
Injection : hydrodynamic, 50 mbar, 5 s
Voltage : +20 kV
Detection : UV, 214 nm
Temperature : 25 °C

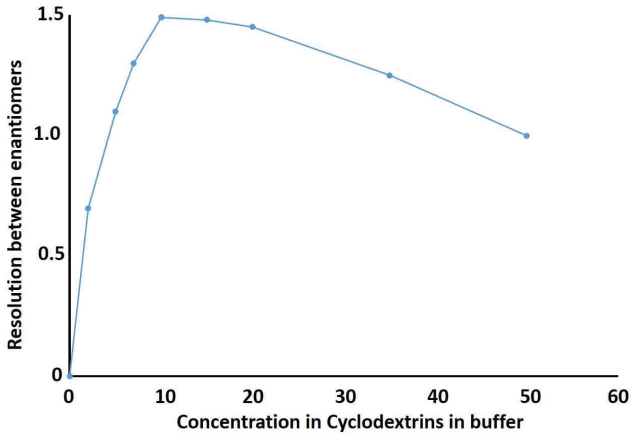
1. Principle

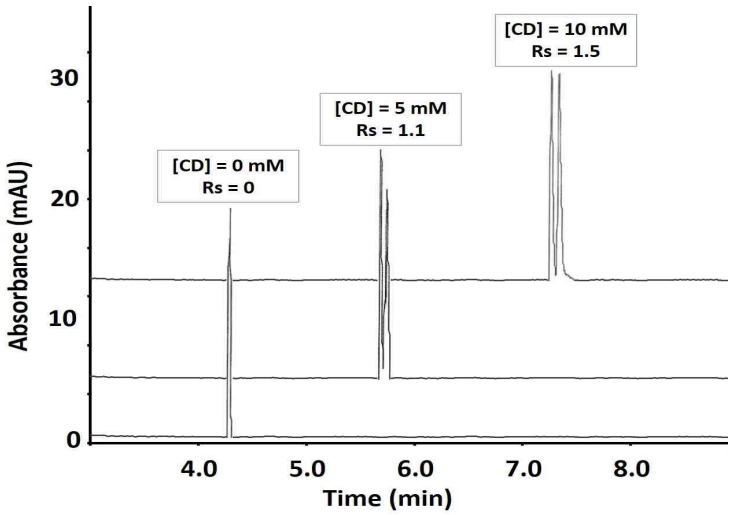


Needs for Chiral Separation :

1) Different complex stabilities for each enantiomer
2) Different mobilities between free and complexed species

2. [CD] optimization





Capillary Electrophoresis Advantages for Chiral Separations

- **Separation rapidly optimized**
- **HPLC-Identical sentivity**
- **Low-Cost of Use**

Prologue 1 ; 815 La Pyrénéenne – 31670 Labège - France
Tel. +33 (0)5 34 31 05 89– www.wynsep.com - Contact labo : csarazin@wynsep.com