Separating the enantiomers of the antidepressant citalopram

Citalopram is one of the group of drugs known as selective serotonin reuptake inhibitors (SSRI) and is mostly used in the treatment of depression.
It is a racemic mixture of the enantiomers formed during the synthesis. Both the racemate and the eutomer (active enantiomer) escitalopram are used for treatment.

Using CHIRAL ART Cellulose-C, a separation with a resolution of 2.2 is achieved in 3 minutes!

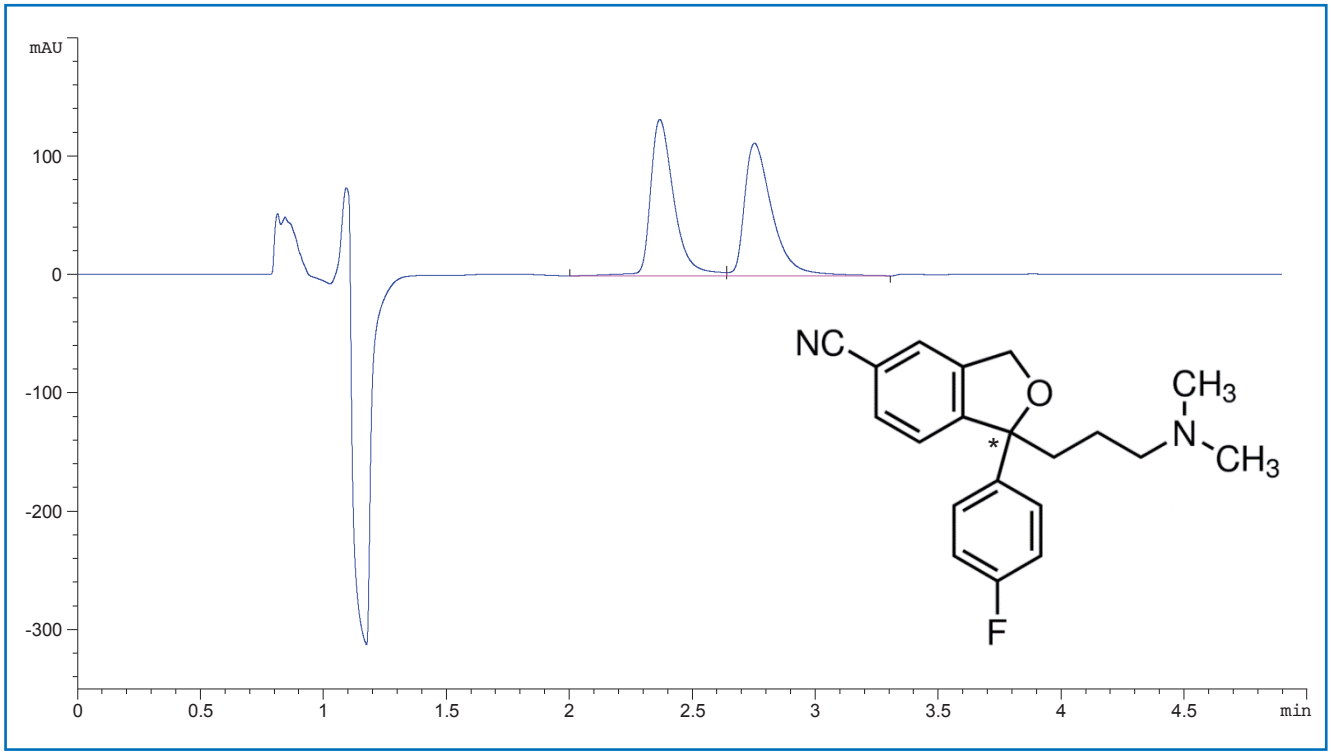

Figure 1: Separation of citalopram enantiomers using CHIRAL ART Cellulose-C

Table 1: Chromatographic conditions

Column:	CHIRAL ART Cellulose-C (3 µm) 150 x 3.0 mm ID
Part No.:	KCN99S03-1503WT
Eluent:	*n*-hexane / 2-propanol / diethylamine (90/10/0.1)
Flow rate:	1 mL/min
Temperature:	10 °C
Detection:	UV at 220 nm
Injection:	5 µL (0.5 mg/mL)

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