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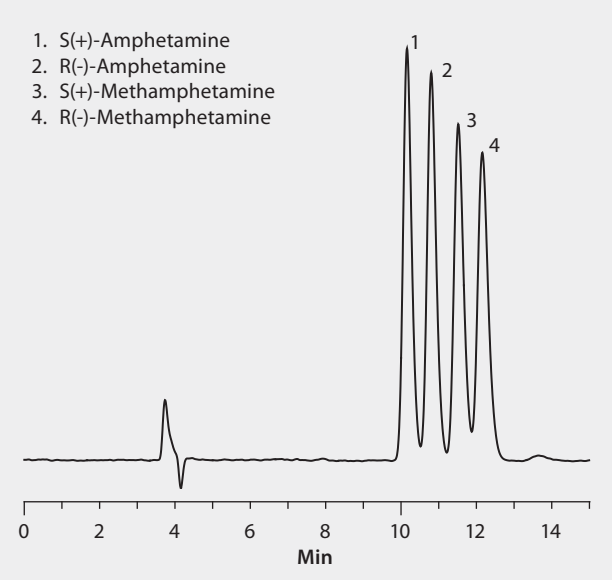
HPLC Analysis of Amphetamine and Methamphetamine Enantiomers on Astec® CHIROBIOTIC® V2

Resolution of the enantiomers of methamphetamine and amphetamine is of clinical interest for two reasons: they exhibit different physiological effects, and it is a means to distinguish between legal and illicit sources of the drugs. Shown here is the rapid and efficient resolution of all four enantiomers on an Astec CHIROBIOTIC V2 column. LC/MS grade solvents were used to supply low background interference and low particulate contaminants for robust, trouble-free operation. Cerilliant CRMs provided reliable identification and quantification.

market focus	Pharmaceutical (small molecule)
column	Astec CHIROBIOTIC V2, 25 cm x 4.6 mm I.D., 5 µm (15024AST)
mobile phase	[A] methanol; [B] water; [C] acetic acid; [D] ammonium hydroxide; (95:5:0.1:0.02, A:B:C:D)
flow rate	1 mL/min
pressure	840 psi (58 bar)
column temp.	40 °C
detector	UV, 205 nm
injection	5 µL
sample	100 µg/mL each enantiomer in methanol
Application No.	G1006443



Related Products

analytical column
Astec® CHIROBIOTIC® V2 Chiral HPLC Column (Supelco 15024AST)

mobile phase component
Acetic acid (Fluka 49199)
Ammonium hydroxide solution (Fluka 44273)
Methanol (Fluka 14262)
Water (Fluka 14263)

standard
(±)-Amphetamine solution (Cerilliant A-007)
S(+)-Amphetamine (dextro-Amphetamine) solution (Cerilliant A-008)
R(-)-Amphetamine (levo-Amphetamine) (Cerilliant A-049)
(±)-Methamphetamine solution (Cerilliant M-009)
R(-)-Methamphetamine solution (Cerilliant M-024)
S(+)-Methamphetamine solution (Cerilliant M-020)