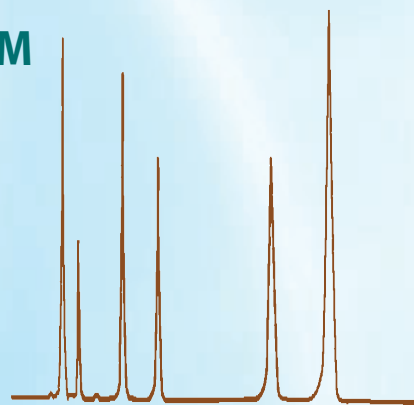


EpitomizeTM

Chiral Stationary Phases



- HPLC
- UHPLC
- PREPARATIVE

Epitomize™ Polysaccharide - based Chiral Stationary Phases (CSP) for UHPLC, HPLC, Preparative, and SMB

CSP	Chiral Phase
CSP-1C	Cellulose tris-(3,5-dimethylphenylcarbamate)
CSP-1A	Amylose tris-(3,5-dimethylphenylcarbamate)
CSP-1Z	Cellulose tris-(3-chloro-4-methylphenylcarbamate)
CSP-1K	Amylose tris-(3-chloro-4-methylphenylcarbamate)

Particle Sizes: 1.7, 3, 5, 10, 20, 50, 100, 300 microns

Normal, Polar and Reverse Phase

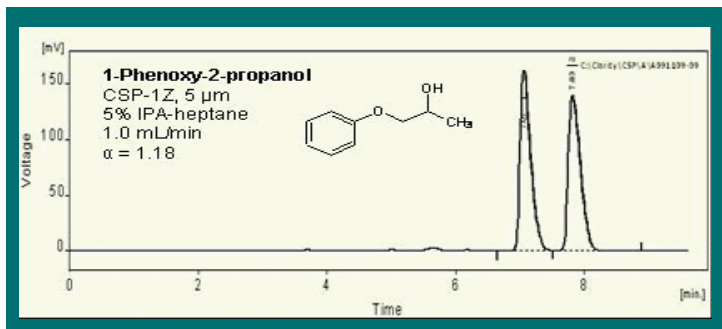
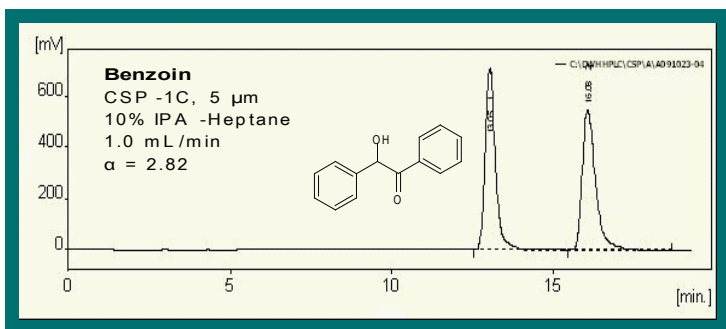
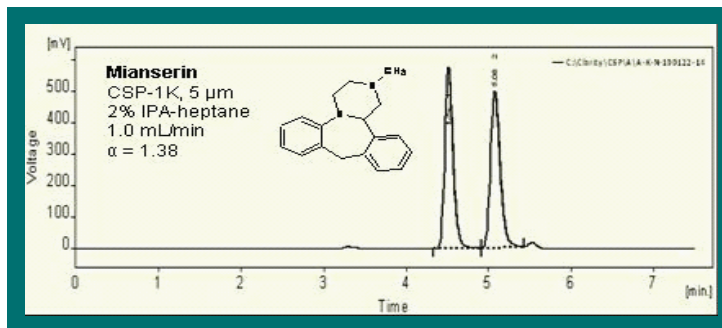
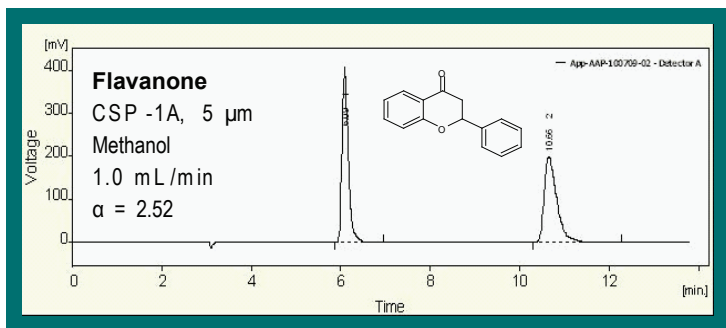
Excellent Pressure Stability

Large Selection of Column Configurations

Applications Library

- *trans*-Stilbene Oxide
- Benzoin
- 1-Phenylethanol
- 1-Indanol
- Flavanone
- Troger's Base
- 1-Phenyl-ethylamine
- 1-Phenoxy-2-propanol
- 1-Phenyl-1,2-ethanediol
- Ketamine
- Mianserin
- Propranolol
- Citalopram
- Ibuprofen
- Metoprolol
- Oxprenolol
- Hydroxyzine
- Alprenolol
- Etodolac
- 1-(1-Naphthyl)ethanol
- Warfarin
- *trans*-2-Phenyl-1-cyclohexanol
- 1,2,3,4-Tetrahydro-1-naphthol
- α -Methyl-2-naphthalenemethanol
- Benzyl (2*S*,3 α R,7 α S)-octahydroindole-2-carboxylate

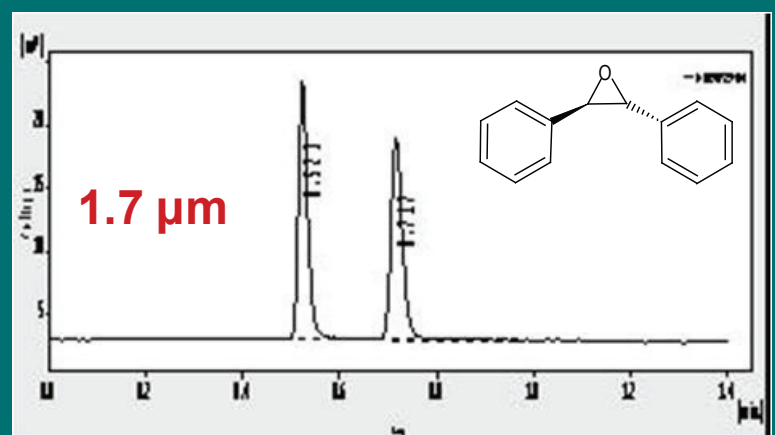
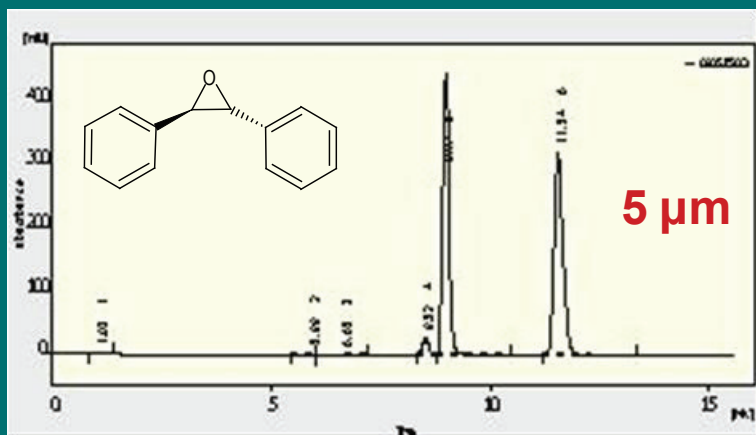
Example Separations Using the Epitomize CSP-1 Series



Epitomize™ CSP-1 Series, 1.7 micron

CSP-1C 1.7µm vs. CSP-1C 5µm using *trans*-Stilbene Oxide

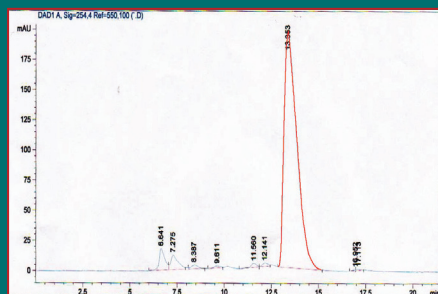
Particle size, µm	5 µm	1.7 µm
Column, mm	4.6 x 250	2.1 x 50
Mobile Phase	10% IPA-heptane	10% IPA-heptane
Flow Rate, mL/min	0.50	0.50
Backpressure, psi	330	3620
Time of Separation, min	12	0.8
Mobile Phase, mL	4.6	0.4



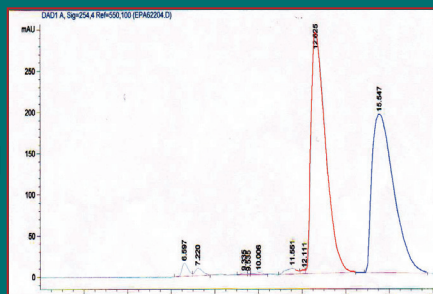
Epitomize 1.7 micron CSPs

- UHPLC
- Fast throughput
- Low solvent consumption
- Quick equilibration
- Inline process monitoring
- LC-MS

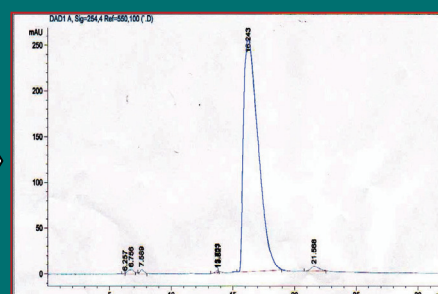
Simulated Moving Bed (SMB) Technology for Chiral Chromatography



Rejected Isomer

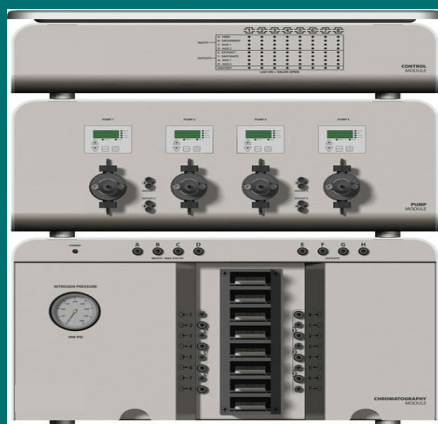


Feed



Extracted Isomer

Contract Purification Services



Lab Scale

For,
API
Sugars
Chiral Racemates
Fatty Acids

In,
Lab Scale (grams)
Pilot Scale (kilograms)
Industrial Scale (tonns)



Pilot Scale

Epitomize™ CSP-2 Series Covalently-bound Chiral Selector

The covalent bonding permits the use of all typical organic solvents including ketones (e.g., acetone), halogenated solvents (e.g., dichloromethane and chloroform), ethyl acetate, THF, MTBE and other aggressive solvents such as DMF and DMA. The CSP-2 series allows the separation of many new racemates that could not be accomplished due to previous mobile phase limitations for coated CSP's.

