

P-CAPTM Normal Phase CSPs Poly-CyclicAmine Polymer

■	New polymeric chiral stationary phase
■	No solvent limitations
■	Reversible elution order as R,R- and S,S-configurations
■	High capacity for preparative applications
■	Stable covalent chemistry
■	High efficiency
■	Sub and supercritical fluid compatible

P-CAP is a new bonding technology for the normal phase separation of racemic compounds. It is based on the development of a reproducible polymeric chiral ligand to ensure high capacity.

These P-CAP polymeric CSPs have a thin, ordered layer bonded on the silica surface without altering the porous structure of the silica. These stationary phases are both efficient and highly enantioselective. The repeating chiral moiety offers both structural conformation and hydrogen bonding interactions as the driving mechanisms.

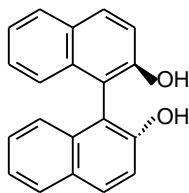
Classes of compounds resolved to date:

Compound Class	Mobile Phase
✓ Benzenesulfonamides	Polar Organic Mode
✓ Binaphthols	Polar Organic Mode, Normal Phase Mode
✓ Benzodiazepins	Polar Organic Mode, Normal Phase Mode
✓ Phosphonic acids	Polar Organic Mode
✓ Bis-Sulfones	Normal Phase Mode
✓ Chromemones	Normal Phase Mode

Preparative separations can be run in a variety of solvents including typical heptane/IPA, pure acetone, methylene chloride/methanol and ethyl acetate/methanol. Capacities are of the order of 1 to 5 mg/gm of CSP.

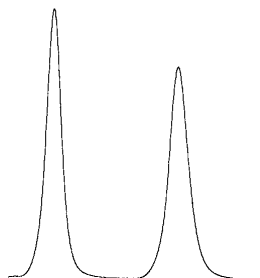
P-CAP Loading Study

Separation of 1,1'-Bi-2-naphthol



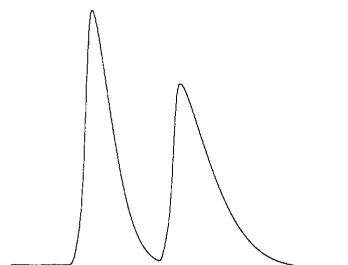
Load – 1 µg

Peak 1 – 9.42 min
Peak 2 – 11.59 min.
= 1.34



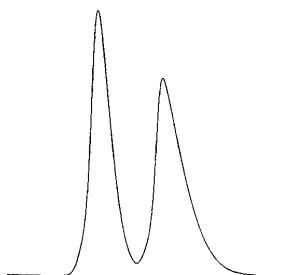
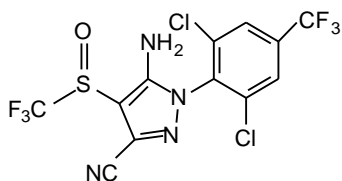
Load – 1 mg

Peak 1 – 8.51 min.
Peak 2 – 10.07 min.



Column: (R,R) P-CAP (250x4.6mm), Mobile Phase: EtOH/Heptane: 50/50, Flow Rate: 1.0 mL/min.,
Detection: UV @ 254 nm, Temperature: 25°C

Separation of Fipronil



Loading 1 mg

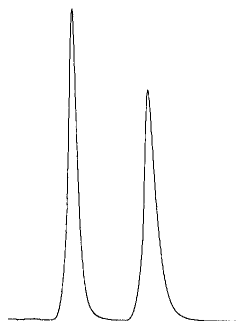
Peak 1 – 8.62 min.
Peak 2 – 9.60 min.

Column: (R,R) P-CAP (250x4.6mm), Mobile Phase: EtOH/Heptane: 20/80, Flow Rate: 1.0 mL/min.
Detection: UV @ 310nm, Temperature: 25°C

Improved Analytical Separation with MS Compatible Composition Mobile Phases

Separation of 1,1'-Bi-2-naphthol

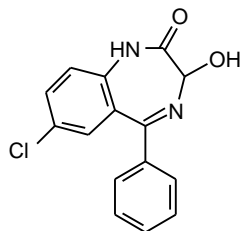
Peak 1 – 7.91 min.
Peak 2 – 9.51 min.



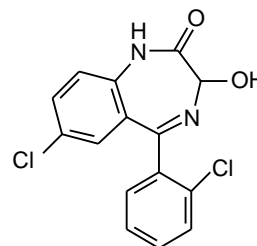
Column: (R,R) P-CAP (250x4.6mm), Mobile Phase: ACN/MeOH/NH₄OAc: 95/5/10 mM, Flow Rate: 1.0 mL/min.
Detection: UV @ 254 nm, Temperature: 25°C

Improved Analytical Separation With MS Compatible Mobile Phase Composition

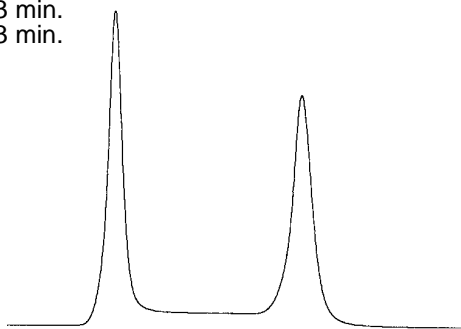
Oxazepam



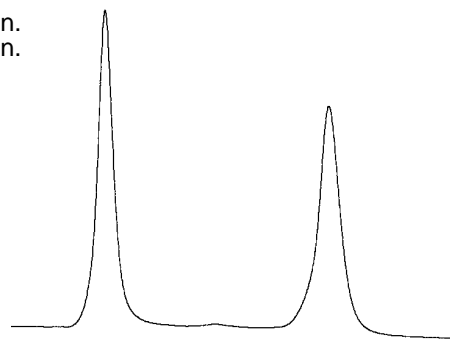
Lorazepam



Peak 1 – 5.93 min.
Peak 2 – 7.73 min.



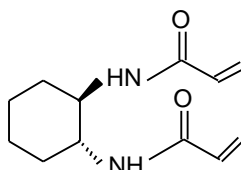
Peak 1 – 5.97 min.
Peak 2 – 8.12 min.



Column: (R,R) P-CAP (250x4.6mm), Mobile Phase: ACN/MeOH/NH₄OAc: 70/30/20 mM, Flow Rate: 1.0 mL/min.
Detection: UV @ 254 nm, Temperature: 25°C

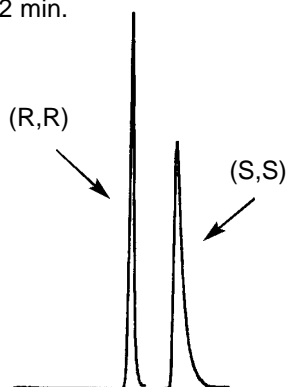
Reversal of Elution Order of (R,R) + (S,S) Diaminocyclohexane-acrylamide

Column:
(R,R) P-CAP (250x4.6mm)

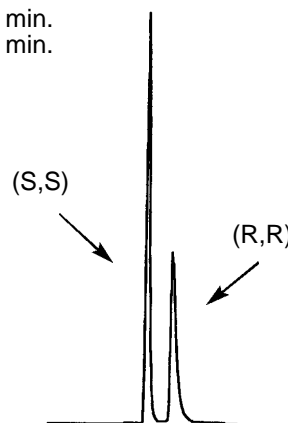


Column:
(S,S) P-CAP (250x4.6mm)

Peak 1 – 4.39 min.
Peak 2 – 6.12 min.



Peak 1 – 3.94 min.
Peak 2 – 4.94 min.



Mobile Phase: ACN/MeOH: 97/3, Flow Rate: 1.0 mL/min., Detection: UV @ 254 nm, Temperature: 25°C

AVAILABILITY

Catalog No.	Description	Dimensions
30021AST	(R,R) P-CAP, 3µm	50x4.6mm
30022AST	(R,R) P-CAP, 3µm	100x4.6mm
30023AST	(R,R) P-CAP, 3µm	150x4.6mm
31018AST	(R,R) P-CAP, 5µm	100x2.0mm
31019AST	(R,R) P-CAP, 5µm	150x2.0mm
31020AST	(R,R) P-CAP, 5µm	250x2.0mm
31021AST	(R,R) P-CAP, 5µm	50x4.6mm
31022AST	(R,R) P-CAP, 5µm	100x4.6mm
31023AST	(R,R) P-CAP, 5µm	150x4.6mm
31024AST	(R,R) P-CAP, 5µm	250x4.6mm
31026AST	(R,R) P-CAP, 5µm	500x4.6mm
31034AST	(R,R) P-CAP, 5µm	250x10.0mm
31036AST	(R,R) P-CAP, 5µm	500x10.0mm
31044AST	(R,R) P-CAP, 5µm	250x22.1mm
31046AST	(R,R) P-CAP, 5µm	500x22.1mm
31100AST	(R,R) P-CAP, Guard	2cmx4.0mm
21150AST	Guard Holder	
32021AST	(S,S) P-CAP, 3µm	50x4.6mm
32022AST	(S,S) P-CAP, 3µm	100x4.6mm
32023AST	(S,S) P-CAP, 3µm	150x4.6mm
33018AST	(S,S) P-CAP, 5µm	100x2.0mm
33019AST	(S,S) P-CAP, 5µm	150x2.0mm
33020AST	(S,S) P-CAP, 5µm	250x2.0mm
33021AST	(S,S) P-CAP, 5µm	50x4.6mm
33022AST	(S,S) P-CAP, 5µm	100x4.6mm
33023AST	(S,S) P-CAP, 5µm	150x4.6mm
33024AST	(S,S) P-CAP, 5µm	250x4.6mm
33026AST	(S,S) P-CAP, 5µm	500x4.6mm
33034AST	(S,S) P-CAP, 5µm	250x10.0mm
33036AST	(S,S) P-CAP, 5µm	500x10.0mm
33044AST	(S,S) P-CAP, 5µm	250x22.1mm
33046AST	(S,S) P-CAP, 5µm	500x22.1mm
33100AST	(S,S) P-CAP, Guard	2cmx4.0mm
21150AST	Guard Holder	

(R,R) P-CAP and (S,S) P-CAP columns are also available in preparative sizes packing with 10µm and 16µm media.
 (R,R) P-CAP and (S,S) P-CAP media is also available in 10µm and 16µm particles.



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