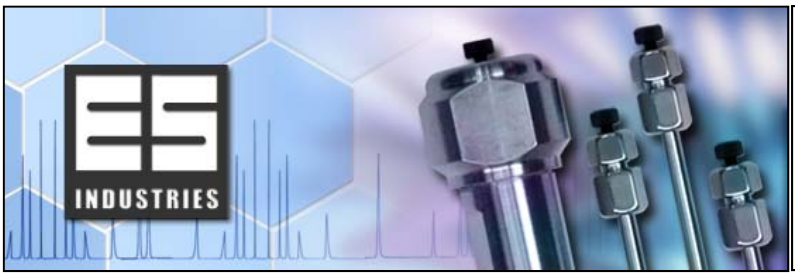


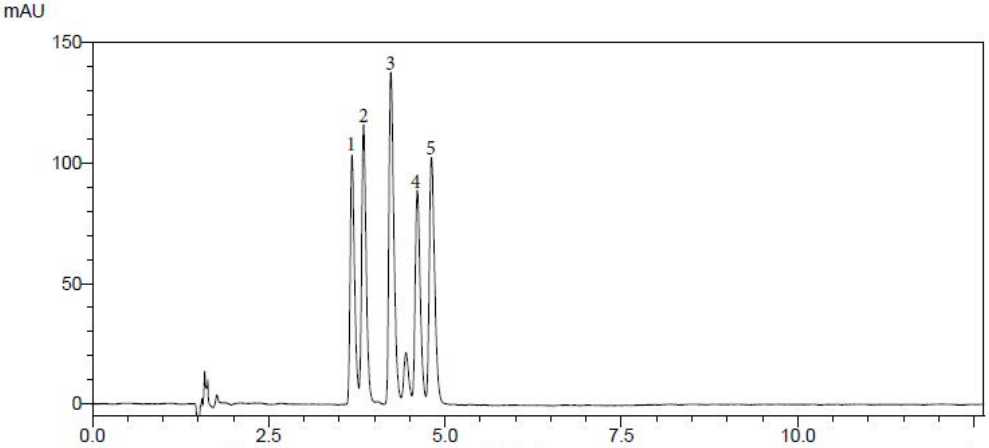
APPLICATION NEWS

GreenSep Naphthyl Columns for SFC

High Resolution Separation of Quinine Derivatives using GreenSep Naphthyl

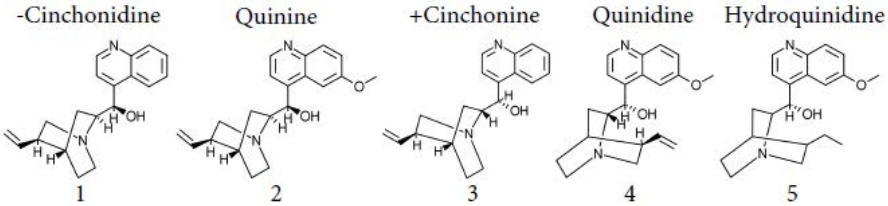
Supercritical fluid chromatography (SFC) is a powerful chromatographic technique for the separation of complex mixtures. It has been useful in the areas of preparative chromatography and rapid analysis chromatography. Many SFC separations have been forced to utilize older types of stationary phases from “normal phase” HPLC such as unmodified silica, diol, amino and cyano. These phases are poorly adapted to SFC and present a number of limitations for SFC separations. Limitations include: low capacity, poor selectivity, and poor peak shape for SFC separations.

At ES Industries we have developed the GreenSep line of stationary phases specifically engineered for SFC separations. One of the phases in the GreenSep line is GreenSep Naphthyl. This stationary phase has proven superior to conventional stationary phases (such as diol, cyano etc...) in the areas of separation selectivity, peak shape and loading capacity particularly for the separation of diastereomers. GreenSep Naphthyl is based on the rigid structure of pi electron rich and the naphthalene molecule provides a basis for many diastereomeric separations. The chromatogram shown below is a prime example of the superior separation of diastereomers obtainable with the GreenSep Naphthyl with SFC for a high resolution separation of a mixture of Quinine derivatives. Quinine, an important treatment for malaria, is a natural product isolated from the cinchona tree. The chromatogram contains Quinine derivatives that are very structurally similar and clearly demonstrates the resolution power that GreenSep Naphthyl can deliver to the SFC chromatographer. GreenSep Naphthyl offers the chromatographer greater flexibility in developing diastereomeric separations.



Column:	GreenSep Naphthyl 150 x 4.6mmID 3um
Catalog #	135191-GS-NAP
Mobile Phase:	CO_2/Methanol
Gradient:	3mL/min
Detection:	UV @ 254nm
BPR:	200 bar

Time(min)	% Methanol (0.1% DEA)
0	12
1	12
6	17



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Leaders in Innovative HPLC Column Technology for over 40 years