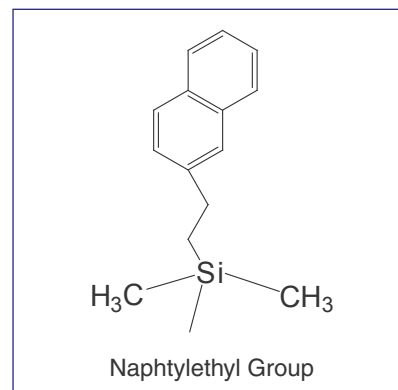


HPLC Column for Structural Isomers

# COSMOSIL $\pi$ NAP

- Naphthalene bonded stationary phase
- Enhanced  $\pi$ - $\pi$  interactions
- Improved selectivity for structural isomers

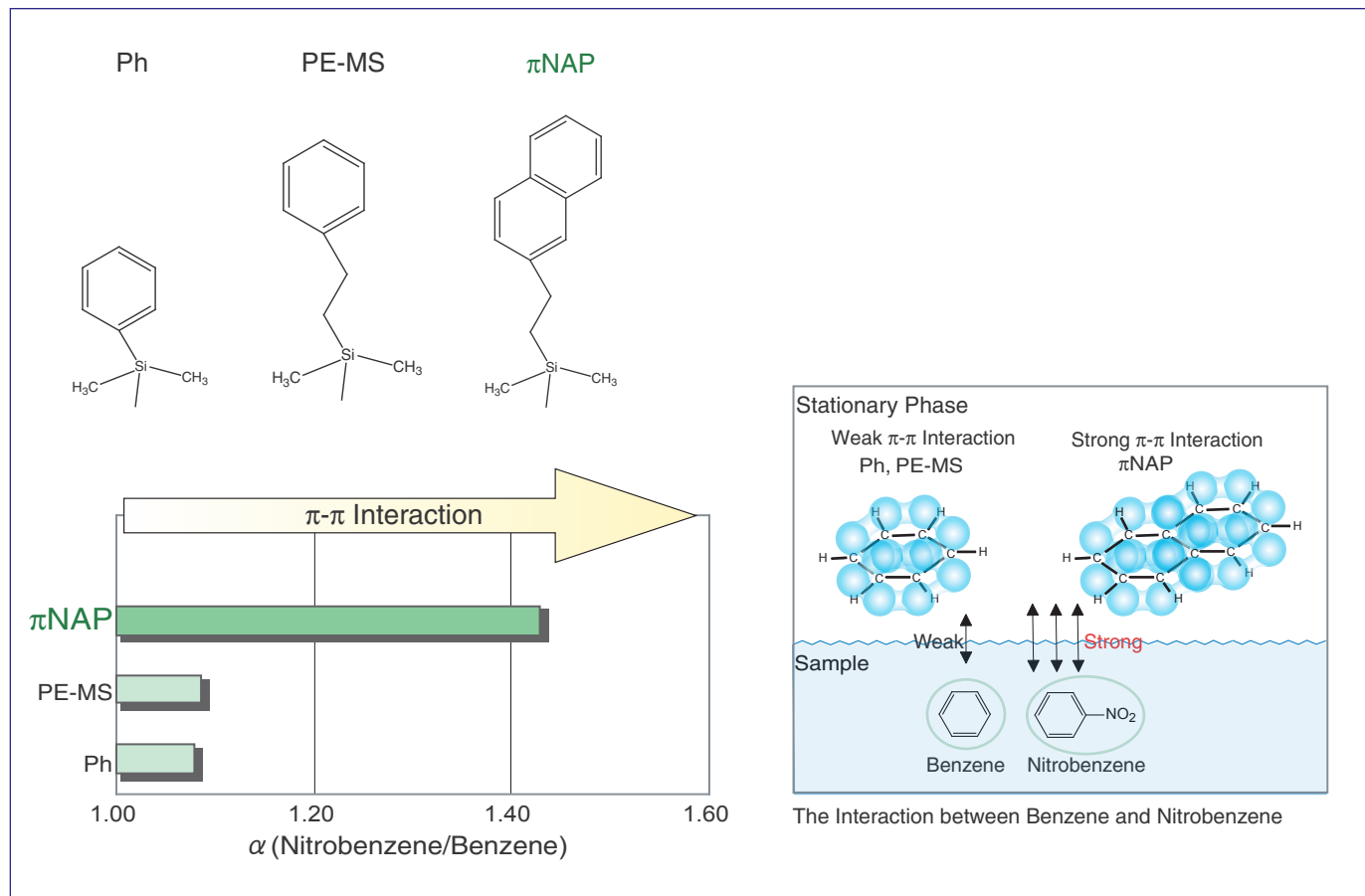
Silica Gel	High Purity Porous Spherical Silica
Average Particle Size	5 $\mu$ m
Average Pore Size	approx. 120 Å
Stationary Phase	Naphtylethyl Group
Main Interaction	Hydrophobic Interaction, $\pi$ - $\pi$ Interaction
Carbon Content	approx. 11%



COSMOSIL  $\pi$ NAP is a reversed phase HPLC column with Naphtylethyl group bonded silica packing material. The naphthylethyl group is composed of two fused aromatic rings and forms strong  $\pi$ - $\pi$  interactions with unsaturated compounds. This column offers improved separation of compounds such as positional isomers that are difficult to analyze with alkyl group bonded materials.

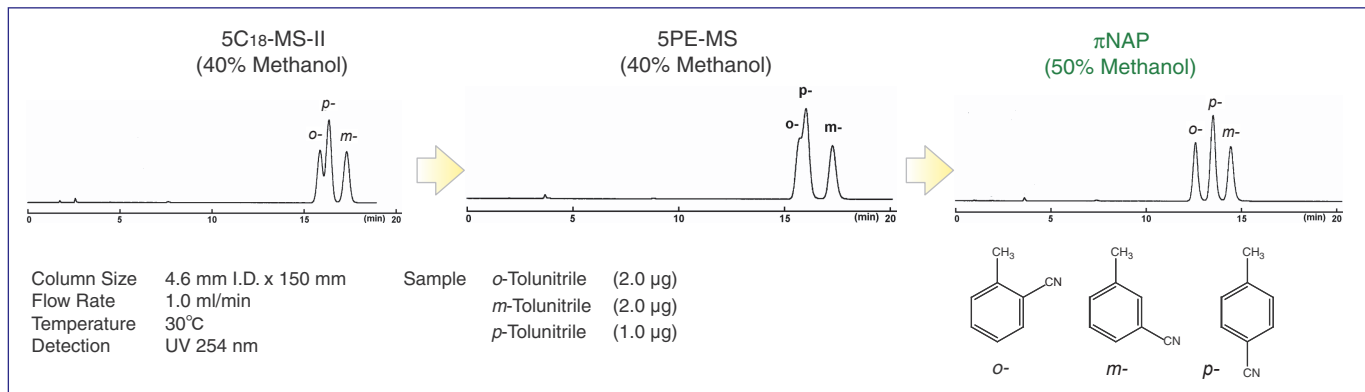
## Comparison with Phenyl Columns

COSMOSIL  $\pi$ NAP with two aromatic rings has stronger  $\pi$ - $\pi$  interactions than phenyl column which has one aromatic ring.

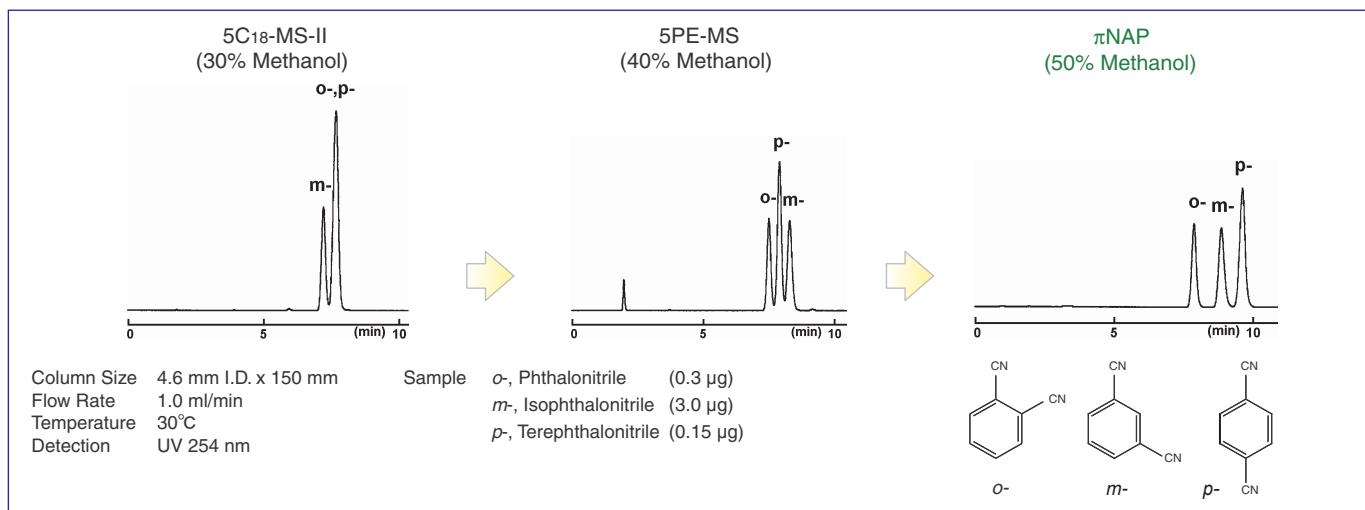


## Application Data

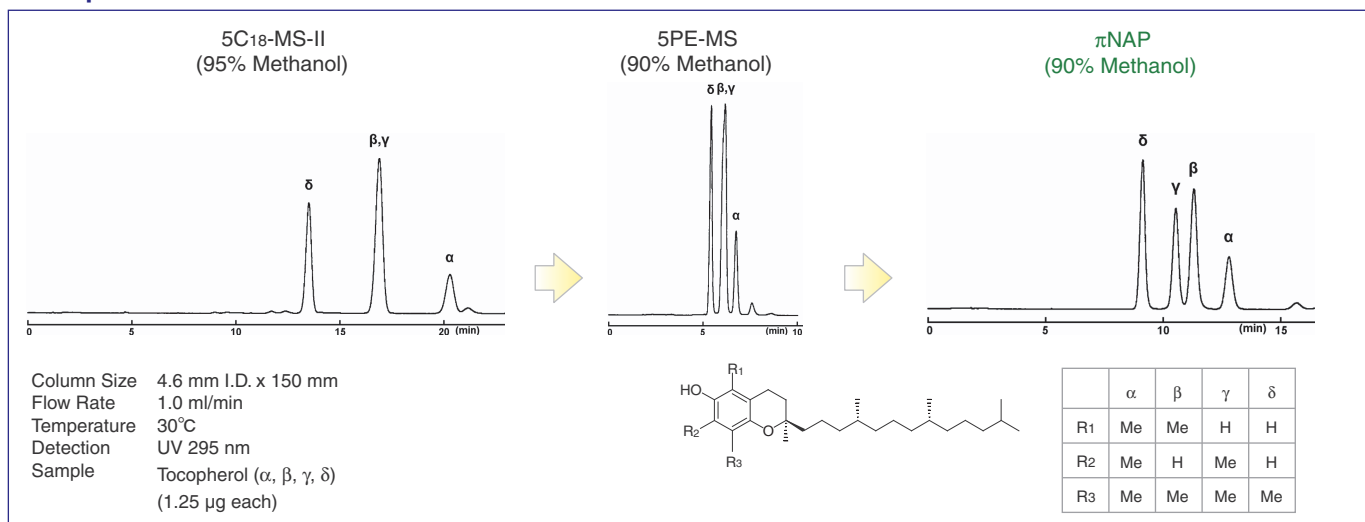
### Position Isomers of Tolunitriles



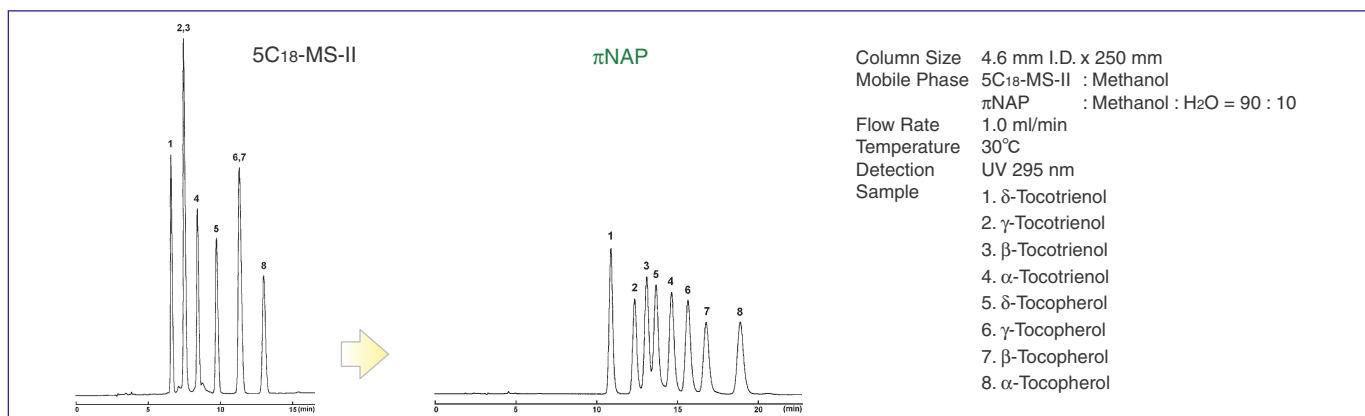
### Position Isomers of Phthalonitriles



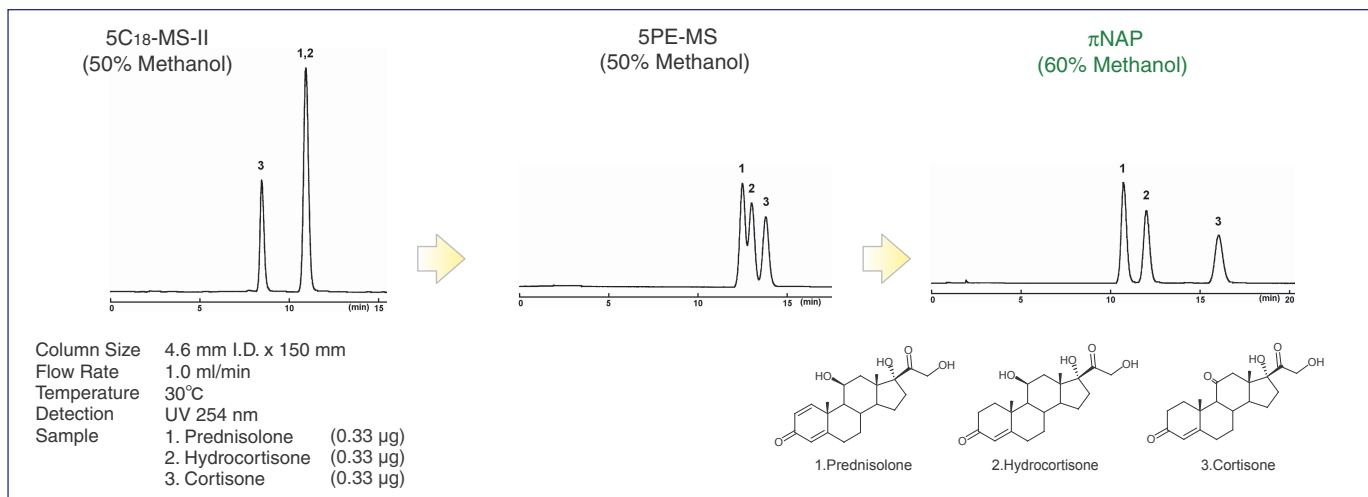
### Tocopherols



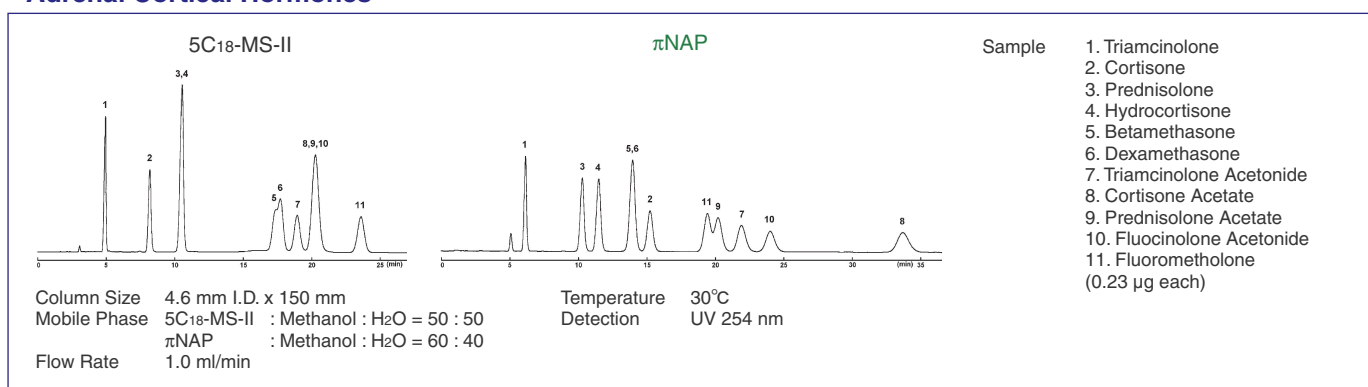
### Vitamin E



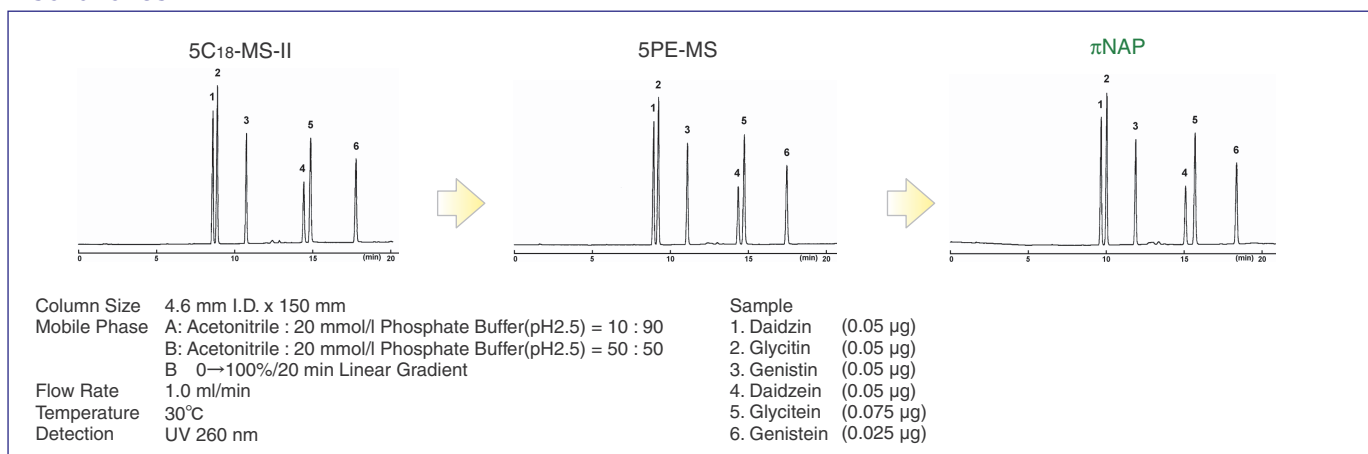
## • Adrenal Cortical Hormones



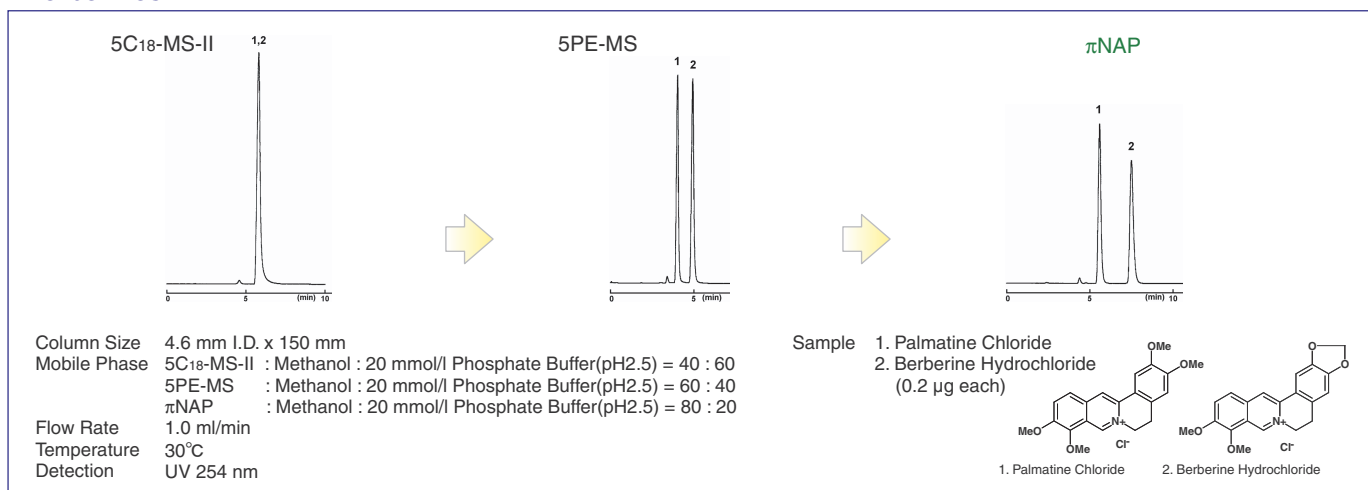
## • Adrenal Cortical Hormones



## • Isoflavones



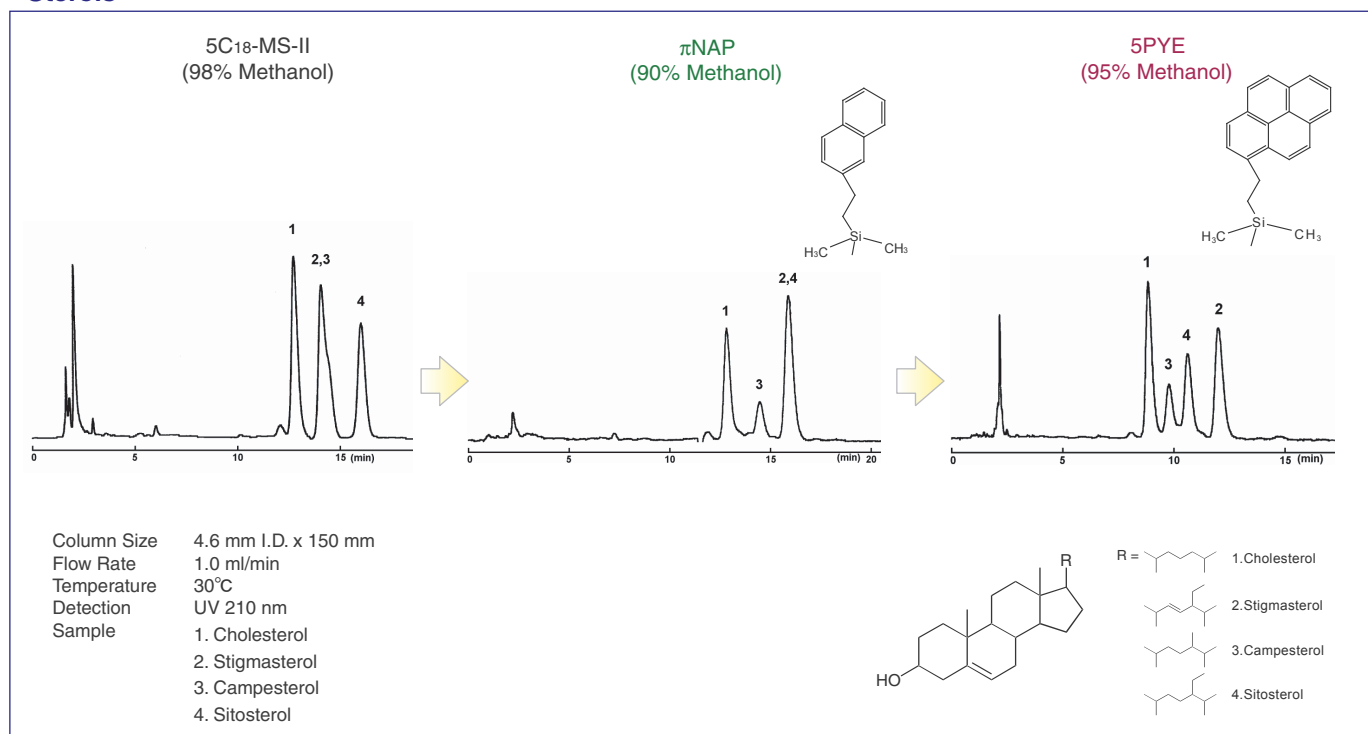
## • Berberines



## Further Separation

COSMOSIL PYE is a packed column with pyrene bonded silica packing material. It has stronger  $\pi$ - $\pi$  interaction than  $\pi$ NAP since pyrene has four aromatic rings.

### • Sterols



## Ordering Information

Product Name	Column Size	Product Number	Product Name	Column Size	Product Number
COSMOSIL $\pi$ NAP	1.0 mm I.D. x 150 mm	08076-61	COSMOSIL $\pi$ NAP	4.6 mm I.D. x 10 mm	08082-71
Packed Column	1.0 mm I.D. x 250 mm	08077-51	Guard Column	10.0 mm I.D. x 20 mm	08087-21
	2.0 mm I.D. x 30 mm	08566-41		20.0 mm I.D. x 20 mm	08090-61
	2.0 mm I.D. x 50 mm	08567-31		20.0 mm I.D. x 50 mm	08091-51
	2.0 mm I.D. x 100 mm	08299-51		28.0 mm I.D. x 50 mm	08094-21
	2.0 mm I.D. x 150 mm	08078-41			
	2.0 mm I.D. x 250 mm	08079-31			
	3.0 mm I.D. x 150 mm	08080-91			
	3.0 mm I.D. x 250 mm	08081-81			
	4.6 mm I.D. x 150 mm	08085-41			
	4.6 mm I.D. x 250 mm	08086-31			
	10.0 mm I.D. x 150 mm	08088-11			
	10.0 mm I.D. x 250 mm	08089-01			
	20.0 mm I.D. x 150 mm	08092-41			
	20.0 mm I.D. x 250 mm	08093-31			
28.0 mm I.D. x 250 mm	08095-11				

Other size may be available. Please enquire.

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