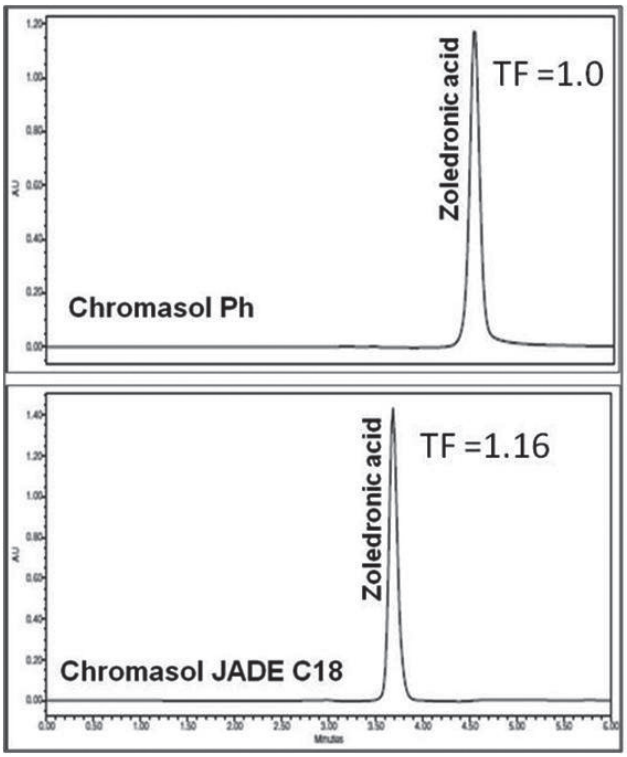
INTEK
CHROMASOL
Innovation Ahead

CHROMASOL **Ph**

For improved separations over alkyl phases like C18, phenyl based reversed-phase column offer excellent performance with enhanced phenyl retention and selectivity for aromatic analyte.

Phenyl-bonded phases are π-basic and provide π-π interactions available through the phenyl ring and analytes π electron. In the basic media structure, the phenyl group is bound directly to the silica base material and exerts a weak hydrophobic interaction. With an alkyl chain of ethyl, propyl, butyl or hexyl as spacer bonded to phenyl rings, the hydrophobic retention will not be the same but becomes moderately higher with chain length, concomitant with the extent of end capping. Because of the weakening of the π-π interactions in the phenyl column by the mobile phase acetnotrile π-electron, often methanol is preferred in the mobile phase.

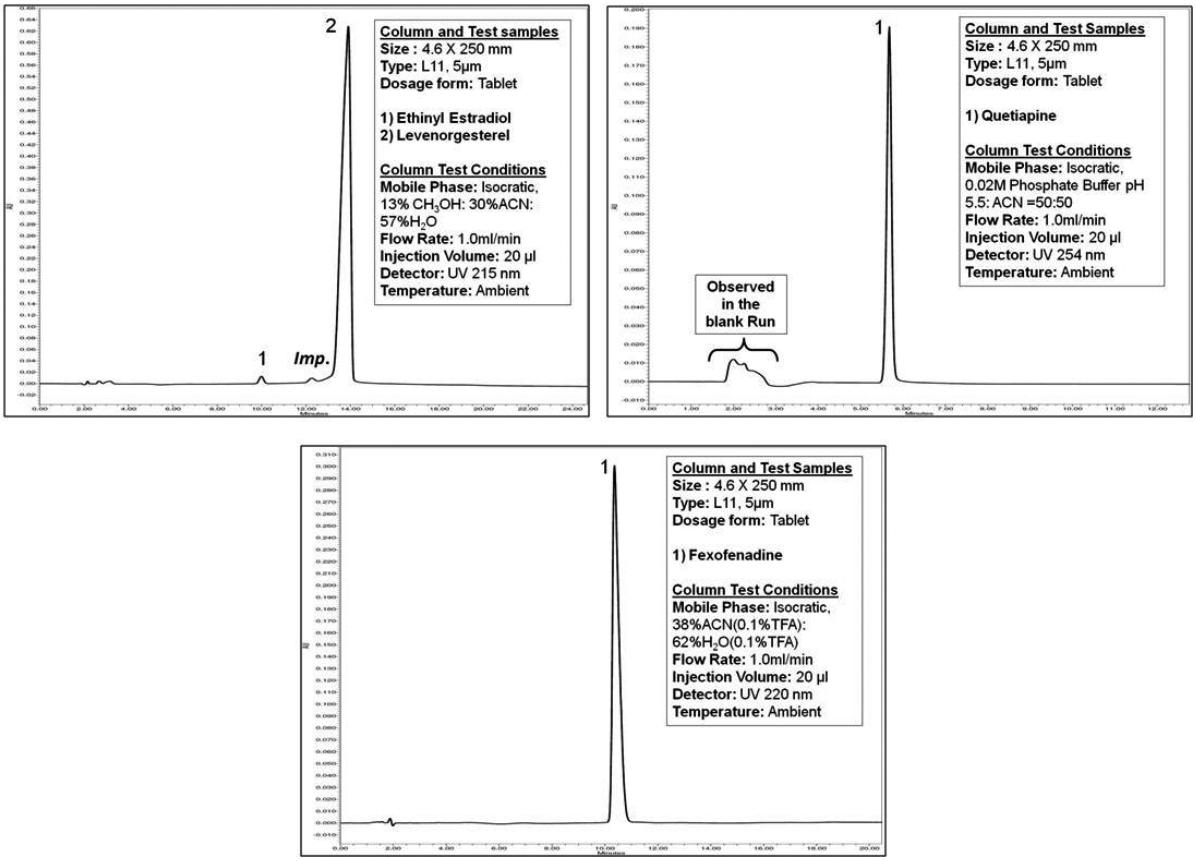
Chromasol Ph is a phenyl column with a phenyl ring bonded through an alkyl chain as spacer in the phenyl stationary phase. This column produces moderately better retention compared to a C18 column and is very well illustrated by the corresponding column chromatograms. Chromasol Ph column will feature a higher but differential selectivity of aromatic π-acceptors, water soluble molecules and peptides, nitro aromatics, heterocyclics and other polar compounds.



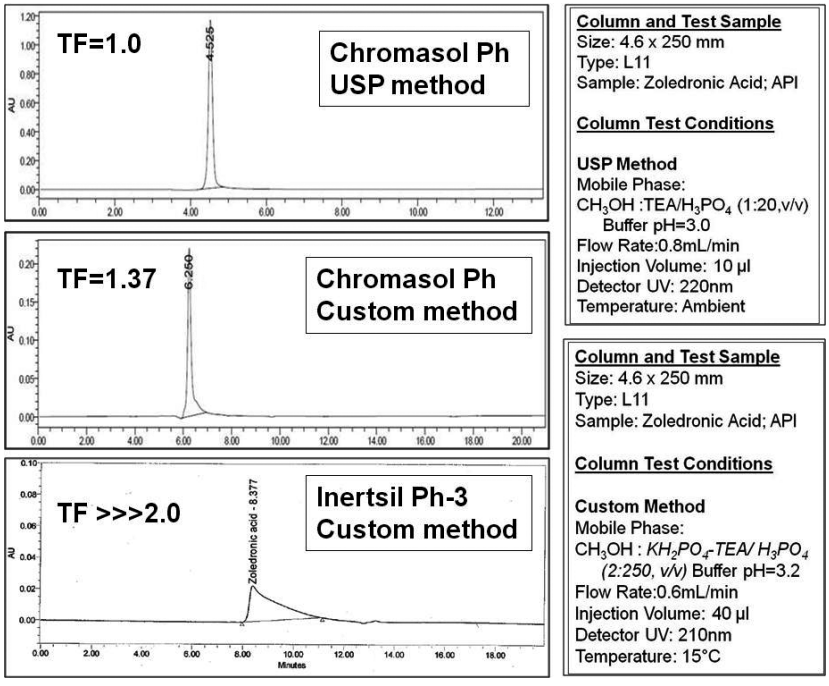
Columns and Test Sample
Size: 4.6 x 250 mm
Type: L11, L1
Sample: Zoledronic Acid; API

Column Test Conditions

USP Method
Mobile Phase:
CH_3OH :TEA/H_3PO_4 (1:20,v/v)
Buffer pH=3.0
Flow Rate:0.8mL/min
Injection Volume: 10 µl
Detector UV: 220nm
Temperature: Ambient

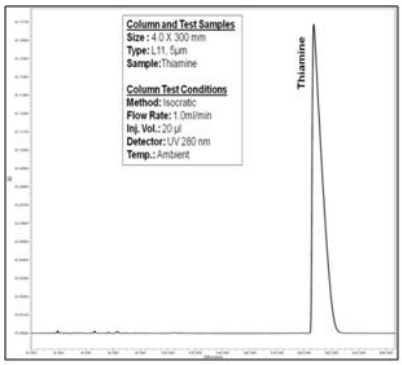


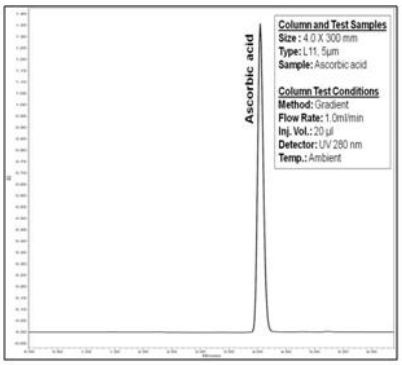
Applied to Zoledronic acid, Chromasol Ph column performance is unique in terms of USP monograph method and does not warrant application to other custom methods when compared to other L11 columns used in identical methods since Chromasol Ph column allows TF in the range (1.0 -1.9) < 2.0, depending on the method.

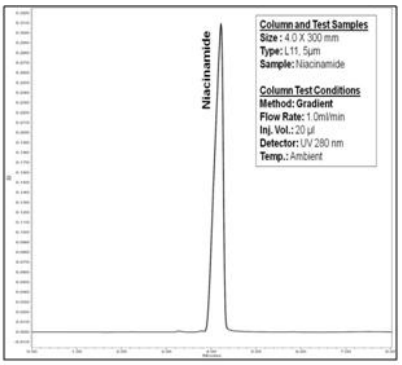


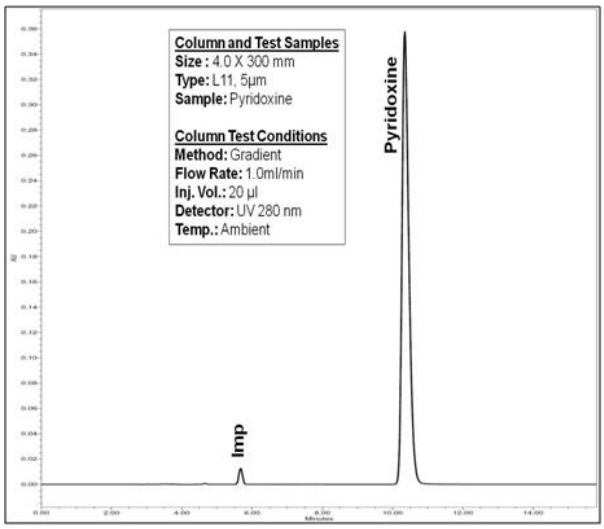
Successful separation of Zoledronic acid with exotic peak results having an ideal TF of 1.0 within the precincts of USP method and peak TF criterion of NMT < 2.0, achieved by using Chromasol Ph column is illustrated in comparison with that of Inertsil Ph-3.

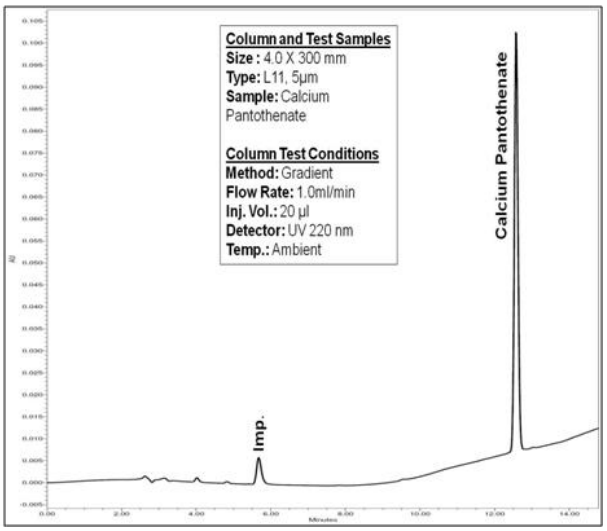
Water Soluble Vitamins

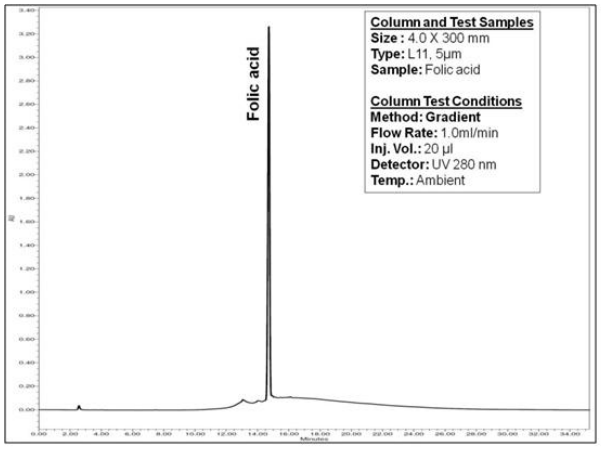


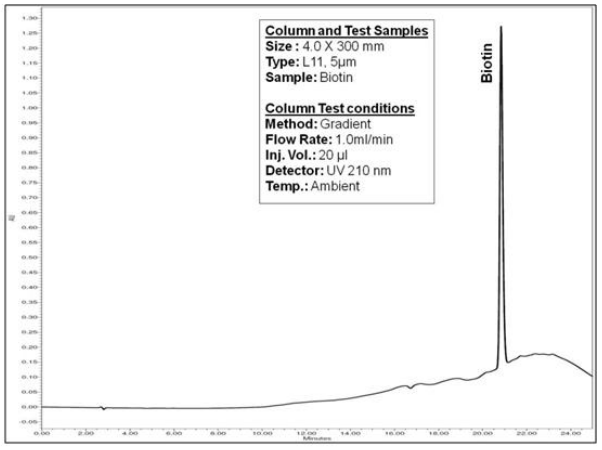


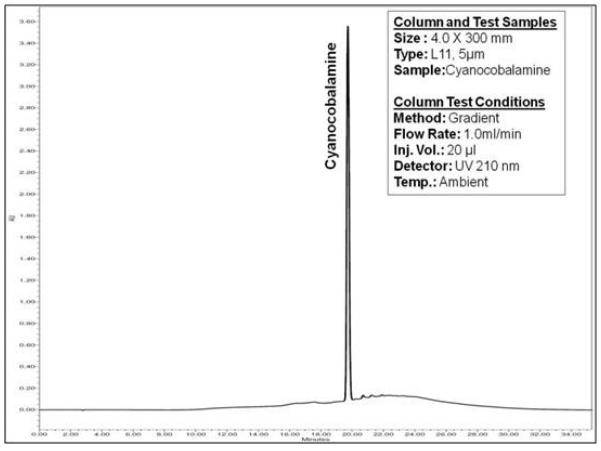


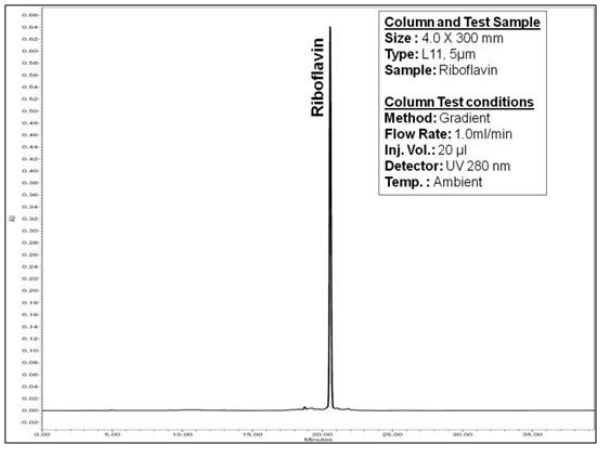






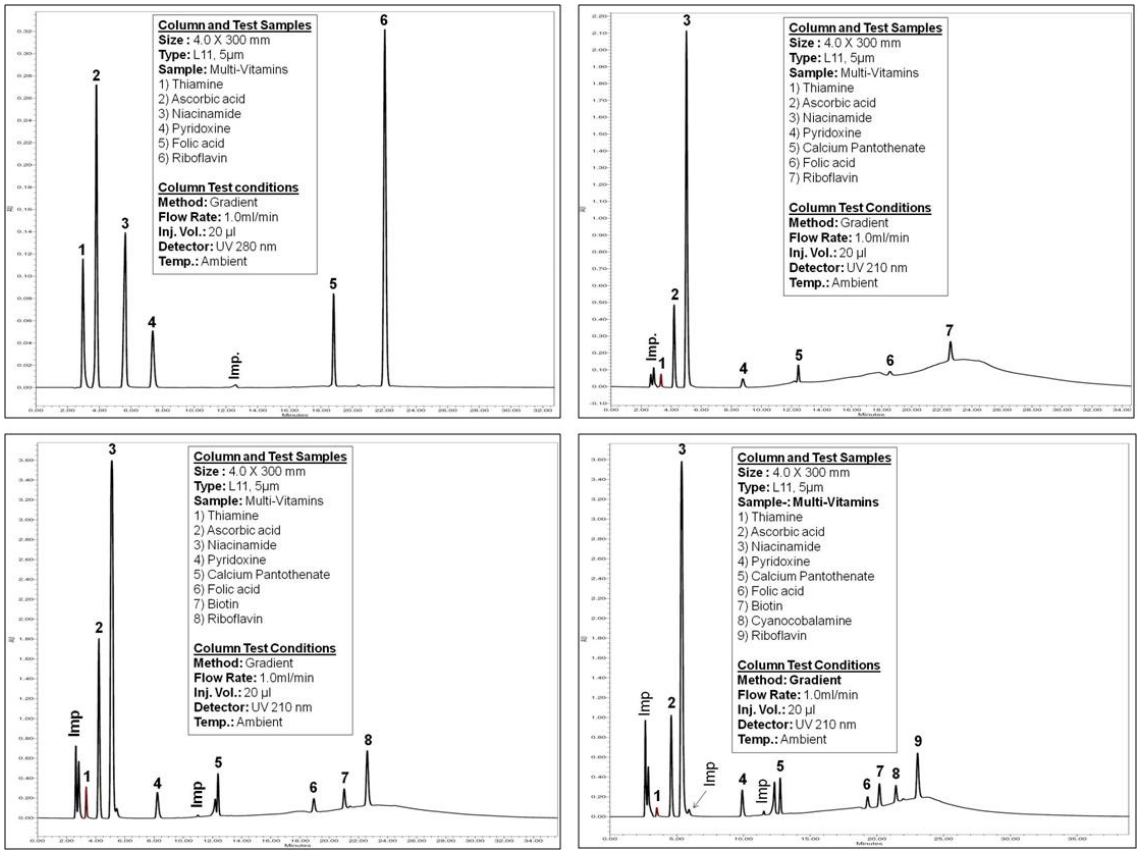






Multivitamins

Over years analyses of multivitamins has been taxing owing to the diverse properties of the vitamins and has been a road block in the quantification of the multivitamins in one chromatography run. Recently, nine vitamins have been studied categorically at different detector wavelengths in a set of three different chromatograms. However, Intek Chromasol has developed a method using the Chromasol Ph column and has quantitatively analyzed nine multivitamins in one chromatography run at a single detector wavelength. Here are illustrated examples of the one run chromatograms for multivitamins in 6, 7, 8 and 9 composition formulations. The method and column could also be applied to formulations with composition less than six vitamins. This method and column besides facilitating process and quality control, speeds up analyses in related nutracuetical industries.



Ordering Information

A performance validation report will be furnished with every column ordered.

Name	Bonded Phase	Particle Shape, Size µm	Pore Size, Å	Column Size, mm	Part No.
Chromasol Ph	Phenyl	5	100, 150	4.0 x 300	ICPh5100-4030
				4.0 x 250	ICPh5100-4025
				4.0 x 150	ICPh5100-4015
				4.0 x 100	ICPh5100-4010
				4.6 x 250	ICPh5100-4625
				4.6 x 150	ICPh5100-4615
				4.6 x 100	ICPh5100-4610
				21.2 x 250	ICPh5100-21225
				21.2 x 150	ICPh5100-21215
				21.2 x 100	ICPh5100-21210

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