

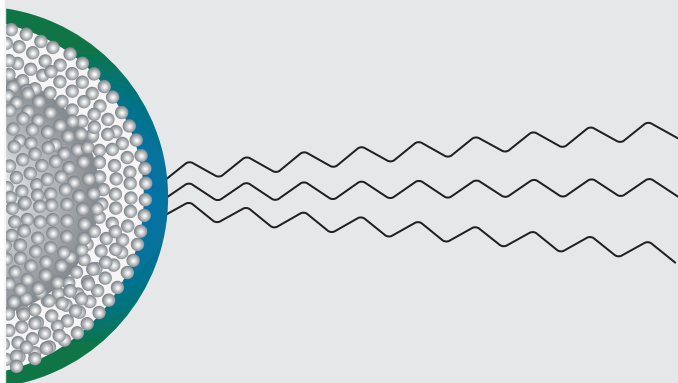
Fortis® SpeedCore® pH+ C18

 New Fused Core technology

- ⊙ Extended pH operating range (pH 2-11)
- ⊙ Optimal peak shape and retention for basic analytes
- ⊙ Increased method development options
- ⊙ Increased choice of buffer conditions

Speedcore® pH Plus features the latest Surface Grafting Technology (SGT) to improve particle pH stability and durability of the bonded phase ligand attached to its surface.

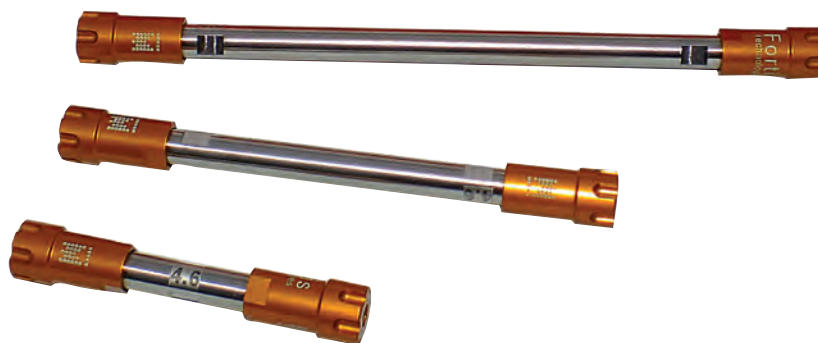
SURFACE GRAFTING TECHNOLOGY



Crosslinked surface modification reduces the opportunity for silanol interaction as well as surface dissolution.

This provides extended pH stability for the core-shell particle

Surface grafting technology (SGT) extends the capability of core-shell technology to now allow for high pH use as well as low and mid pH stability. High efficiency core-shell technology combined with this improved ability to run at extremes of pH allow for excellent method development options. Peak capacity and sample loading of basic molecules is also increased.

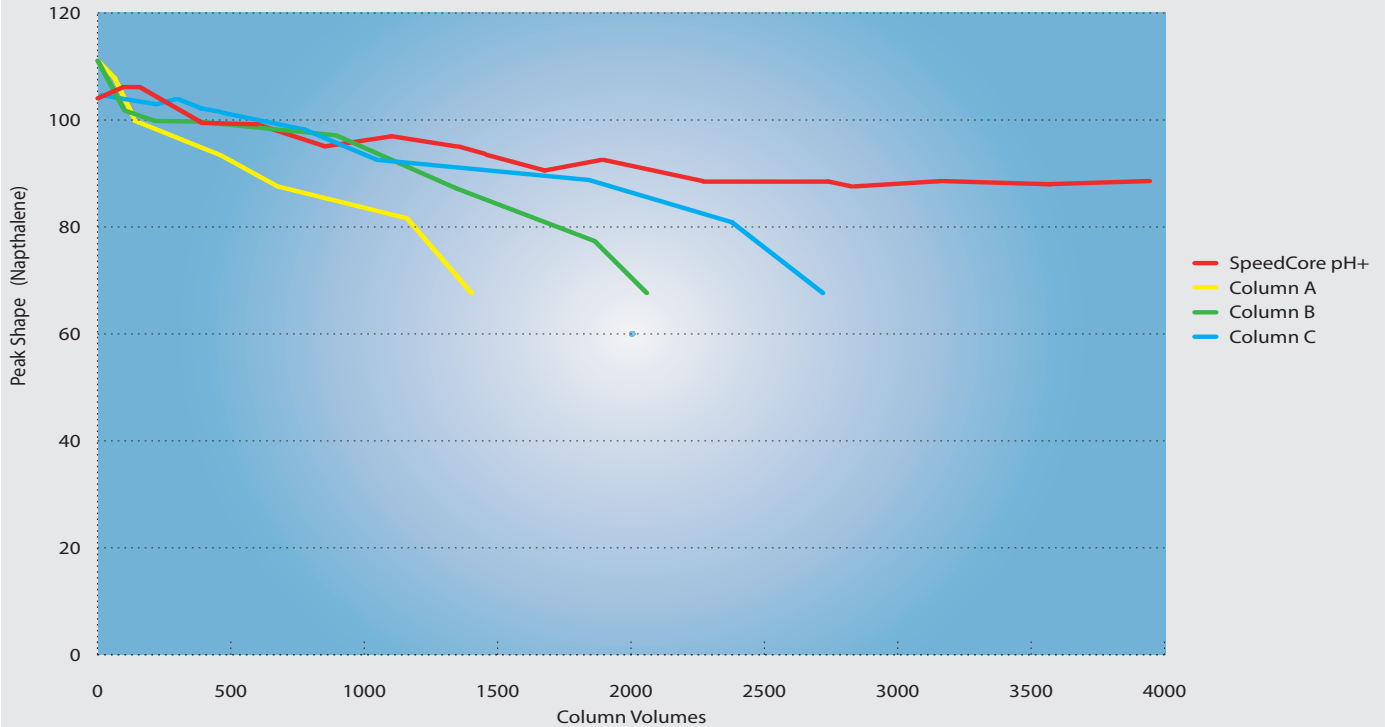


pH 2

pH 11

No buffer limitations

ACCELERATED COLUMN AGEING STUDY



Stability in - 50mM Ammonium Bicarbonate pH 10 Temperature 50oC

The first generation of core-shell particles suffered from short column lifetimes if run outside a moderate pH range of 2-8. As a result application of these columns was limited, as was the use of pH to achieve necessary selectivity and retention.

SpeedCore pH Plus can operate across an extended pH range (2-11) due to its protected surface. This leads to better peak shapes, higher loadability and enhanced selectivity along with the high efficiency expected from a core-shell particle.

The increased pH stability of SpeedCore pH Plus provides a more robust method development option giving confidence that methods will be reproducible. If a larger pH range is available then screening new compounds for the correct pH optimum becomes much simpler.

pH 2

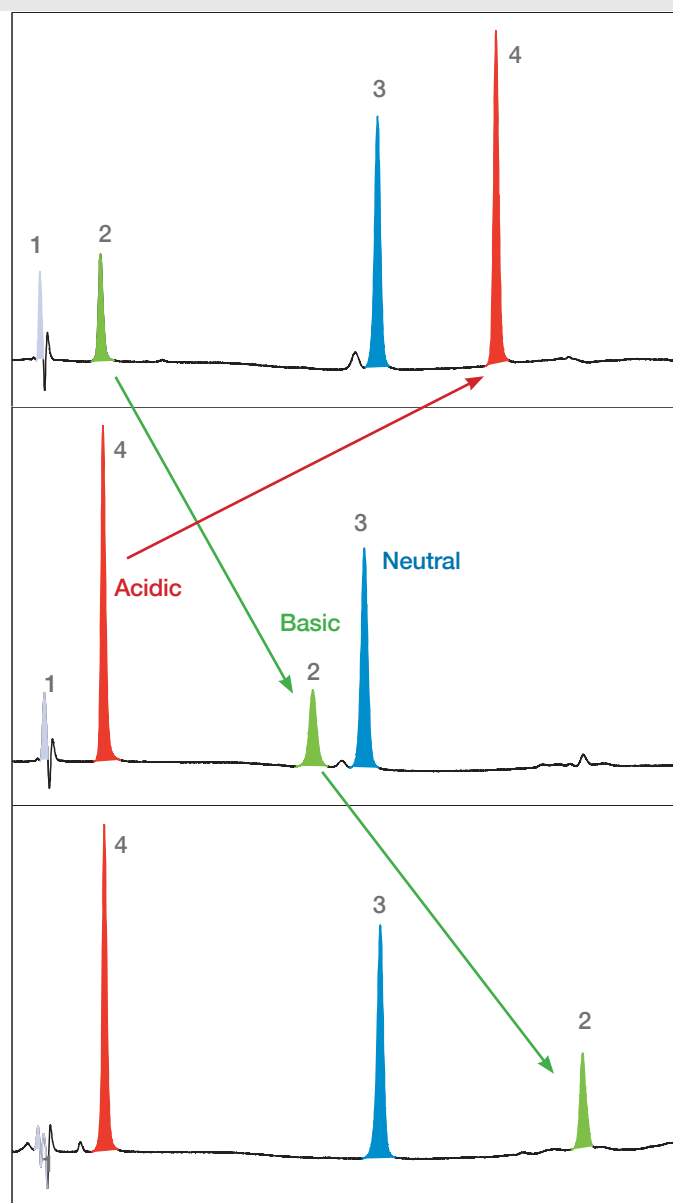
pH 11

No buffer limitations

- ⊙ pH selectivity for method development
- ⊙ pH stable 2-11
- ⊙ Gives high speed equilibration

2.6µm Fortis SpeedCore pH Plus can operate across a wide pH spectrum giving the analyst the ability to optimise the correct pH region for their separation. Quickly equilibrating from formic acid to ammonium acetate through to ammonia allows pH, as a method variable, to be rapidly evaluated. Resolution of compounds can be changed radically by altering pH to optimise separation between compound classes.

METHOD DEVELOPMENT



Column: 2.6µm SpeedCore C18 50x2.1mm
p/n: SP18-020326
Gradient: 10 - 50% in 5min
Buffer : Potassium Phosphate
Flow: 0.4ml/min
Temp: 20°C
Wavelength: 254nm

1. Uracil
 2. Procaine
 3. Fenuron
 4. 3-Nitrobenzoic acid

pH 2.2

pH 7.2

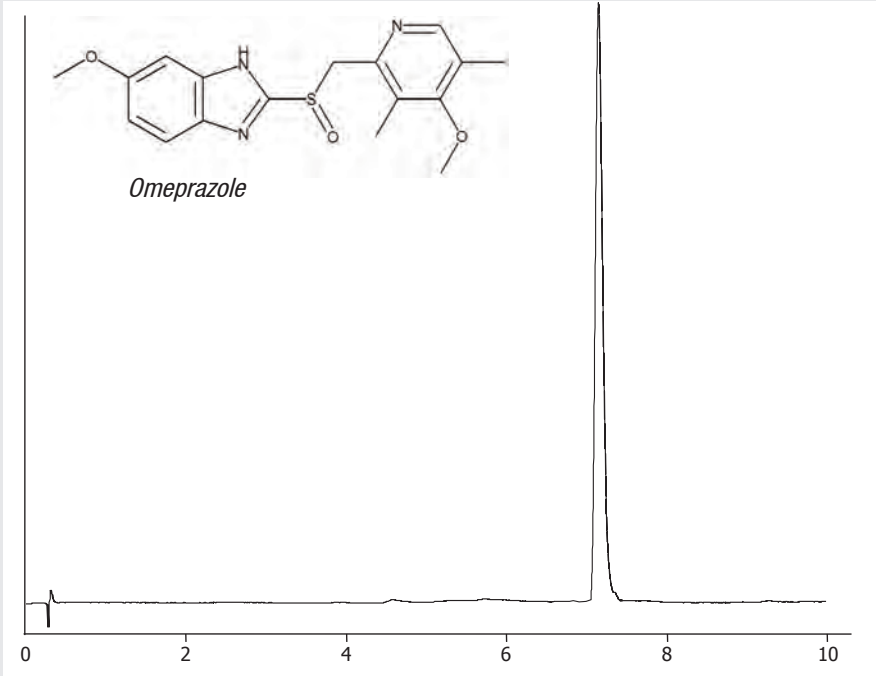
pH 11.0

pH 2

pH 11

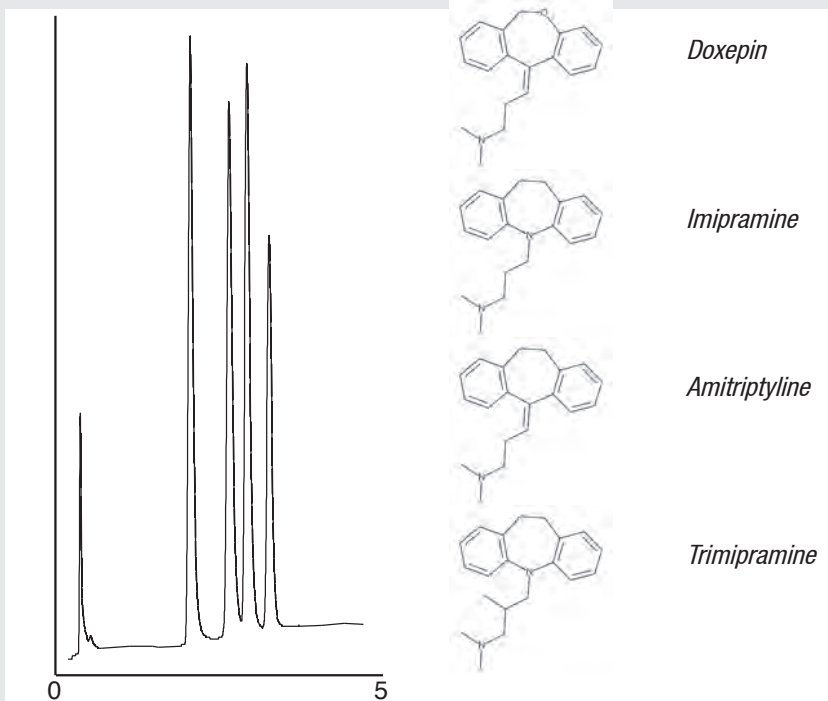
No buffer limitations

OMEPRAZOLE



2.6µm SpeedCore pH Plus 50x4.6mm
 A: 10mM Ammonium bicarbonate pH 10
 B: MeOH
 Gradient: 60-80%B in 10mins
 Flow: 1.0ml/min
 Temp: 40°C
 Wavelength : 254nm

TRICYCLIC ANTIDEPRESSANTS



2.6µm SpeedCore pH Plus 50x4.6mm
 A: 10mM Ammonium bicarbonate pH 10
 B: MeOH
 Gradient: 60-80%B in 10mins
 Flow: 1.0ml/min
 Temp: 40°C
 Wavelength : 254nm

pH 2

pH 11

No buffer limitations