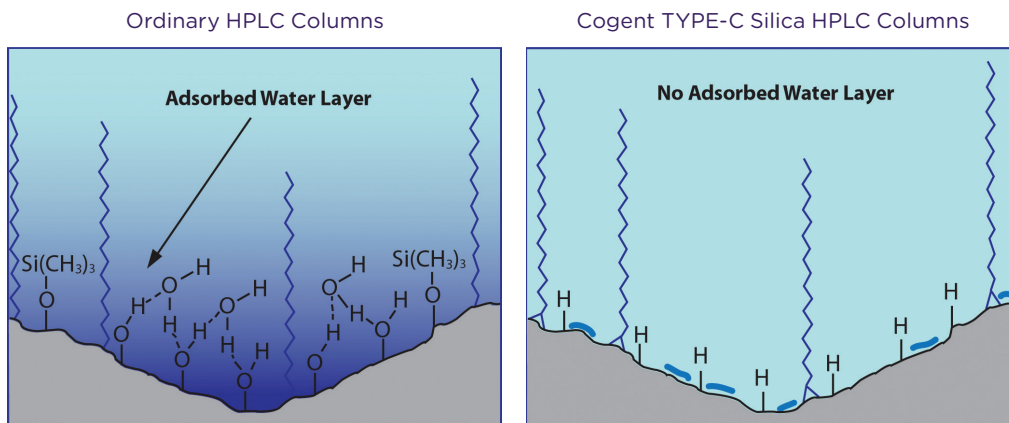


Figure 3.



TYPE-C silica phases can be used in three different modes of HPLC: Classic reversed-phase (RP), organic normal-phase (ONP) with non-polar solvents (such as hexane) and normal-phase elution with aqueous solvents. This last technique is referred to as Aqueous Normal-Phase (ANP), which is a powerful technique for the separation of polar compounds. Due to this ability to be used in three different modes of HPLC, the selectivity power of any one phase is vastly increased and one column can be used to separate polar and non-polar compounds at the same time or in different runs.

Features and Benefits of TYPE-C Silica

TYPE-C silica columns offer you the chromatographer many features and benefits:

Feature	Chromatographer's Benefits
Silicon-Carbon bonds instead of Siloxane	More stable and durable
Si-H replaces Si-OH	Rapid equilibration between gradients
Weakly associated hydration shell	Water friendly columns, easy to use
Temperature stability increased	Use temperature as a selectivity tool without damage to the column
Free of salts	Contaminant free surface
Use 100% water on C18	Without loss of retention with time
Lack of pH hysteresis	Quickly change mobile phases and pH buffers
Perform ANP and RP at the same time	Separate polar and non-polar compounds in the same run. Unknown-unknowns are more likely to be identified using dual mode
Retain polar compounds at extremely high organic content	Increases sensitivity of LC-MS using ESI
Use non-polar solvents	Retain and separate compounds which are insoluble in water
Low affinity for water	Run NP separations without problems of moisture in solvents
Use high % organic content in mobile phases	Inject sample diluent (high organic) directly on to column - saves sample prep time
Bonded phase that performs ANP, RP and ONP	Get the performance of HILIC columns on a stable, robust phase
High efficiency and stability	Good peak shapes and long-lasting columns, leading to reduced column costs