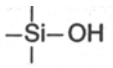
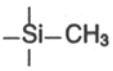
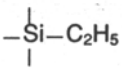
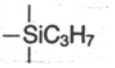
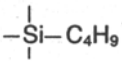
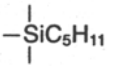
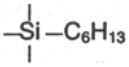
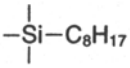
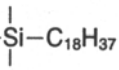
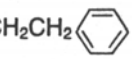
BONDED PHASES FOR HPLC AND THEIR ABBREVIATIONS HPLC 固 定 相 簡 介

Phase	Description
Si	Silica 
	Classic normal phase material. Suitable for separating polar non-ionic organic compounds.
C1	TMS, SAS, Trimethyl 
	Reversed phase material. Unique selectivity for polar and multifunctional compounds. Least retentive of all alkyl group bonded phases for non-solutes.
C2	RP-2, Dimethyl 
	Reversed phase material. Less retentive than C4, C8, or C18. More retentive than C1.
C3	Propyl 
	Reversed phase material. Used in Hydrophobic Interaction Chromatography (HIC) of proteins and peptides.
C4	Butyl 
	Reversed phase material. Useful for HIC and ion-pairing chromatography. Offers less retention than C8 and C18 phases for non-polar solutes. When bonded to 300Å silica, it is an ideal phase for analysing large proteins and hydrophobic peptides.
C5	Pentyl 
	Reversed phase material. Useful for reversed phase separation of hydrophobic proteins and peptides when bonded to 300Å silica. More hydrolytically stable than C4.
C6	Hexyl 
	Reversed phase material. Useful for ion-pairing chromatography. Less retentive than C8 and C18 phases.
C8	MOS, RP-8, LC8, Octyl 
	Reversed phase material. Similar selectivity to C18 but less retentive. Wide applicability (e.g., pharmaceuticals, nucleosides, steroids). When bonded to 300Å silica, it Is an ideal phase for peptides, peptide mapping, and small hydrophilic proteins.
C18	ODS, RP-18, LC18, Octadecyl 
	Classic reversed phase material. Most retentive for nonpolar solutes. Excellent for ion-pairing chromatography. Wide applicability (e.g. nucleosides, nucleotides, steroids, pharmaceuticals, vitamins, fatty acids, environmental compounds). When bonded to 300Å silica, this phase is perfect for separating small hydrophilic peptides.
Phenyl	C6H5 
	Reversed phase material. Unique selectivity. Useful for analyzing aromatic compounds. When bonded to 300Å silica, this phase is useful for HIC.

Phase	Description
CN	CPS, PCN, Cyano, Cyanopropyl, Nitrile
	Can be employed as either a reversed phase or normal phase material. Slightly polar, unique selectivity for polar compounds in both reversed phase and normal phase modes. Equilibrates very rapidly, suitable for gradient separations. Useful for many pharmaceutical applications (e.g. tricyclic antidepressants).
NH_2	APS, Amino, Amino Propyl Silyl
	Can be employed as reversed phase, normal phase, or weak anion exchange material. Reversed phase: useful for separating carbohydrates. Normal phase: alternative selectivity to silica, not deactivated by small amounts of water. Ion exchange: weak anion-exchanger when used with buffers. Separates anions and organic acids.
NO_2	Nitro
	Normal phase material. Separates aromatic compounds and compounds with double bonds.
OH	Diol, Glycerol
	Can be employed as either a reversed phase or normal phase material. Reversed phase: used for Gel Filtration Chromatography (GFC) of proteins and peptides. Normal phase: similar selectivity to silica, not deactivated by small amounts of water.
SAX	SB, Quaternary amine, Strong Base
	Ion-exchange material. Strong anion-exchangers (basic) are useful for separating nucleotides, nucleosides, and organic acids.
SCX	SA, Sulfonic Acid, Strong Acid
	Ion-exchange material. Strong cation-exchangers (acidic) are useful for separating organic bases.
WAX	DEAE, Diethylaminoethyl, Weak Base PEI, Polyethyleneimine
	Ion-exchange material. Weak anion-exchangers (acidic) are most useful for analyzing acidic proteins and peptides.
WCX	CM, Carboxymethyl, Weak Acid
	Ion-exchange material. Weak cation-exchangers (basic) are most useful for analyzing basic proteins and peptides.