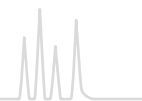




# CHROMABOND® summary of MN phases



CHROMABOND® Phase	Matrix	Modification / Application	Similar phases*	Page
<b>Reversed phases</b>				
HR-X	PS/DVB		ENVI-Chrom P · Strata™-X · Oasis® HLB · Nexus	23
Easy	PS/DVB	polar, bifunctional	Strata™-X · Oasis® HLB · Porapak™ RDX · Nexus, Bond Elut® PPL, Focus™ · Styre Screen® DVB Bakerbond™ H <sub>2</sub> O-philic DVB · Isolute® ENV+	29
HR-P	PS/DVB		Strata™ SDB-L · Bond Elut® ENV, Bond Elut® LMS · DSC-PS/DVB, ENV PS-DVB · Bakerbond™ H <sub>2</sub> O-phobic DVB · Isolute® 101 · LiChrolut® EN	30
PS-RP	PS/DVB	removal of organic components	like HR-P	31
C <sub>18</sub> ec	silica	octadecyl, endcapped	Strata™ C18-E · Sep-Pak® tC18 · Bond Elut® C18 · DSC-18(Lt), ENVI-18, LC-18 · CLEAN-UP® C18, Bakerbond™ Octadecyl · Isolute® C18(EC), LiChrolut® RP-18 E	32
C <sub>18</sub> ec f	silica	as above, fast flow		32
C <sub>18</sub>	silica	octadecyl, not endcapped	Strata™ C18-U · AccuBond® C18 · Bakerbond™ PolarPlus · Isolute® C18 · LiChrolut® RP-18	33
C <sub>18</sub> f	silica	as above, fast flow		33
C <sub>18</sub> Hydra	silica	octadecyl, not endcapped, for polar analytes		34
C <sub>8</sub>	silica	octyl	Strata™ C8 · Sep-Pak® C8 · Bond Elut® C8 · DSC-8, ENVI-8, LC-8 · CLEAN-UP® C8 · AccuBond® C8 · Bakerbond™ Octyl · Isolute® C8(EC)	35
C <sub>4</sub>	silica	butyl		36
C <sub>2</sub>	silica	dimethyl	Bond Elut® C2	36
C <sub>6</sub> H <sub>11</sub> ec	silica	cyclohexyl, endcapped	Bond Elut® CH	37
C <sub>6</sub> H <sub>5</sub>	silica	phenyl	Strata™ PH · Bond Elut® PH · DSC-Ph · CLEAN-UP® Phenyl · AccuBond® Phenyl · Bakerbond™ Phenyl · Isolute PH(EC)	38
<b>Normal phases</b>				
SiOH	silica	unmodified	Strata™ Si-1 · Bond Elut® silica · DSC-Si, LC-Si · CLEAN-UP® silica · AccuBond® silica, Bakerbond™ silica gel · Isolute® silica · LiChrolut® Si	39
NH <sub>2</sub>	silica	aminopropyl	Strata™ NH <sub>2</sub> · Sep-Pak® NH <sub>2</sub> · Bond Elut® NH <sub>2</sub> · DSC-NH <sub>2</sub> , LC-NH <sub>2</sub> · CLEAN-UP® aminopropyl · AccuBond® NH <sub>2</sub> · Bakerbond™ amino · Isolute® NH <sub>2</sub> · LiChrolut® NH <sub>2</sub>	40
OH (Diol)	silica	diol	DSC-Diol, LC-Diol · AccuBond® Diol (OH)	41
CN	silica	cyano	Strata™ CN · Sep-Pak® CN · Bond Elut® CN-U · DSC-CN, LC-CN · CLEAN-UP® CN · AccuBond® CN · Bakerbond™ cyano · Isolute® CN · LiChrolut® CN	41
HILIC	silica	zwitterionic ammonium-sulfonic acid modification	ZIC® HILIC	42
Alox A	aluminum oxide	acidic	LC-Alumina-A · AccuBond® Aluminiumoxid A	43
Alox N	aluminum oxide	neutral	LC-Alumina-N · AccuBond® Aluminiumoxid N	43
Alox B	aluminum oxide	basic	LC-Alumina-B · AccuBond® Aluminiumoxid B	43
Florisil®	magnesium silicate		Strata™ FL-PR · Sep-Pak® Florisil® · Bond Elut® Florisil® · ENVI-Florisil® · LC-Florisil® · CLEAN-UP® Florisil® · AccuBond® Florisil® · Bakerbond™ Florisil® · Isolute® FL · LiChrolut® Florisil®	44
PA	polyamide 6		DPA-6S	44
<b>Ion exchangers</b>				
SA	silica	benzenesulfonic acid cation exchanger (SCX)	Strata™ SCX · Bond Elut® SCX · DSC-SCX, LC-SCX · CLEAN-UP® Benzenesulfonic Acid · AccuBond® SCX · Bakerbond™ Aromatic Sulfonic Acid · Isolute® SCX · LiChrolut® SCX	45
SB	silica	quaternary ammonium anion exchanger (SAX)	Strata™ SAX, Sep-Pak® SAX, Bond Elut® SAX · DSC-SAX, LC-SAX · CLEAN-UP® Quaternary Amine · AccuBond® SAX · Bakerbond™ Quaternary Amine · Isolute® SAX · LiChrolut® SAX	46
PCA	silica	propylcarboxylic acid cation exchanger (WCX)	Strata™ WCX · Bond Elut® CBA · DSC-WCX, LC-WCX · CLEAN-UP® Carboxylic Acid · Bakerbond™ Carboxylic Acid · Isolute® CBA	47
PSA**	silica	propylsulfonic acid cation exchanger	Isolute® SCX-2 · Bond Elut® PRS	47

# CHROMABOND<sup>®</sup> summary of MN phases



CHROMABOND <sup>®</sup>				
Phase	Matrix	Modification / Application	Similar phases*	Page
HR-XC	PS/DVB	strong mixed mode cation exchanger for basic analytes (MCX)	Oasis <sup>®</sup> MCX · Strata <sup>™</sup> -X-C · HyperSep <sup>™</sup> Retain <sup>™</sup> -CX · Styre Screen <sup>®</sup> DBX	25
HR-XA	PS/DVB	strong mixed mode anion exchanger for acidic analytes (MAX)	Oasis <sup>®</sup> MAX · Strata <sup>™</sup> -X-A · HyperSep <sup>™</sup> Retain <sup>™</sup> -AX · Styre Screen <sup>®</sup> QAX	26
HR-XCW	PS/DVB	weak mixed mode cation exchanger for basic analytes (WCX)	Oasis <sup>®</sup> WCX · Strata <sup>™</sup> -X-CW	27
HR-XAW	PS/DVB	weak mixed mode anion exchanger for acidic analytes (WAX)	Oasis <sup>®</sup> WAX · Strata <sup>™</sup> -X-AW	28
PS-OH <sup>-</sup>	PS/DVB	strong anion exchanger in OH <sup>-</sup> form		31
PS-H <sup>+</sup>	PS/DVB	strong cation exchanger in H <sup>+</sup> form		31
PS-Mix	PS/DVB	mixture of PS-OH <sup>-</sup> and PS-H <sup>+</sup>		31
PS-Ag <sup>+</sup>	PS/DVB	strong cation exchanger in Ag <sup>+</sup> form		31
PS-Ba <sup>2+</sup>	PS/DVB	strong cation exchanger in Ba <sup>2+</sup> form		31
<b>Phases for special applications</b>				
Drug	silica	bifunctional C <sub>8</sub> /SA, for enrichment of drugs from urine	Strata <sup>™</sup> Screen-C · Bond Elut <sup>®</sup> Certify I · DSC-MCAX · Clean Screen <sup>®</sup> DAU · AccuBond <sup>®</sup> Evidex · Bakerbond <sup>™</sup> Narc-2 · Isolute <sup>®</sup> HCX · LiChrolut <sup>®</sup> TSC · HyperSep <sup>™</sup> Verify CX	48
Drug II	silica	bifunctional C <sub>8</sub> /SB, for extraction of THC and derivatives and of acidic analytes from biological fluids	Strata <sup>™</sup> Screen-A · Bond Elut <sup>®</sup> Certify II · Clean Screen <sup>®</sup> THC · Bakerbond <sup>™</sup> Narc-1 · Isolute <sup>®</sup> HAX · HyperSep <sup>™</sup> Verify AX	49
Tetracycline	silica	special octadecyl phase, for enrichment of tetracyclines		50
HR-P-AOX	PS/DVB	for extraction of AOX from water (DIN 38409 – H22)		51
C <sub>18</sub> PAH	silica	special octadecyl phase, for enrichment of PAHs from water	Bakerbond <sup>™</sup> Octadecyl Lightload	51
NH <sub>2</sub> /C <sub>18</sub>	silica	combination phase for enrichment of PAHs from water		52
CN/SiOH	silica	combination phase for enrichment of PAHs from soil		52
Na <sub>2</sub> SO <sub>4</sub> /Florisil <sup>®</sup>		combination phase for extraction of hydrocarbons from water (DIN H-53 / ISO DIS 9377-4)		53
NAN	silica / AgNO <sub>3</sub> + Na <sub>2</sub> SO <sub>4</sub>	combination phase for enrichment of PCBs from sludge		54
SA/SiOH	silica	combination phase for enrichment of PCBs from waste oil	Bakerbond <sup>™</sup> PCB-N	55
SiOH-H <sub>2</sub> SO <sub>4</sub> /SA	silica	combination phase, used together with SiOH for enrichment of PCB from oil		56
QuEChERS / Diamino	silica	primary and secondary amine functions (PSA), for determination of pesticides in food samples (QuEChERS method)	Supelclean <sup>™</sup> PSA · Bond Elut <sup>®</sup> PSA	57
ABC18	silica	octadecyl, with ion exchange functions, for acrylamide analysis	Isolute <sup>®</sup> M-M (multimode)	60
Carbon A	activated carbon	determination of acrylamide from water according to DIN 38413-6	Bakerbond <sup>™</sup> Carbon · BEKOLut <sup>®</sup> Carbon SAC	60
PL		specially developed SPE phase for the preparation of bioanalytical samples	Ostro <sup>™</sup> · Phree <sup>™</sup> · HybridSPE <sup>®</sup> -Phospholipid	61
Dry	Na <sub>2</sub> SO <sub>4</sub>	for drying organic samples		61
PTL/PTS	special membrane	phase separation		62
XTR	kieselguhr	liquid-liquid extraction	EXTrelut <sup>®</sup> · Chem Elut <sup>™</sup> · Hydromatrix <sup>™</sup> · Isolute <sup>®</sup> SLE +	63

\* Phases which provide a similar selectivity based on chemical or physical properties (list not complete)

\*\* For primary and secondary amine functions see QuEChERS / Diamino