

Table 1. RPLCxRPLC

Application	First dimension: column, eluent	2 nd dimension: column, eluent	Reference
Oligostyrenes	C18, methanol	Zirconia, acetonitrile	Gray, M.J., et al <i>J. Chromatogr. A</i> 1041 (2004) 101-110.
Plant extracts	Cyano, methanol /H ₂ O	Monolithic C18, acetonitrile/H ₂ O	Zhang, Jet al <i>Anal. Bioanal. Chem.</i> 386 (2006) 586-593.
Herb extracts, phenolic acids	C18, gradient of acetic acid and methanol	Amino, water/acetonitrile	Kivilompolo et al <i>J. Chromatogr. A</i> , 1145 (2007) 155-164
Aromatic compounds	Monolithic C18, tetrahydrofurane /H ₂ O + 0,1 % acetic acid	Monolithic C18, methanol /H ₂ O and acetic acid	Ikegami, T., Hara, T., Kimura, H., Kobayashi, H., Hosoya, K., Cabrera, K., Tanaka, N. <i>J. Chromatogr. A</i> 1106 (2006) 112-117.
Plant extract Stevia glycosides	C18, gradient of water and acetonitrile	Amino acetonitrile/H ₂ O	Pól J.Pol et al. <i>J. Chromatogr. A</i> 1150 (2007) 85-92.
Aromatic and aliphatic compounds	Amino, gradient of TFA and acetonitrile	Cyano, trifluoro acetic acid + H ₂ O / trifluoro acetic acid + acetonitrile	Venkatramani, C.J., Zelechonok, Y. <i>Anal. Chem.</i> 75 (2003) 3484-3494.
Corn metabolomics	HS-F5, Gradient of water and acetonitrile	carbon clad zirconia, gradient acetonitrile	J. Zhang, et al <i>Anal. Bioanal. Chem.</i> 386 (2006), p. 586
Peptide purification	C5, Gradient of acetonitrile and TFA	C18 gradient formic acid, IPA, methanol, acetonitrile	E. Rogatsky and D.T. Stein, <i>J. Sep. Sci.</i> 29 (2006), p. 538.
Proteomics	X-terra C18, Gradient of acetonitrile and TFA	SB-Phenyl, Gradient acetonitrile, TFA	C.J. Venkatramani and A. Patel, <i>J. Sep. Sci.</i> 29 (2006), p. 510.
Pharmaceutical: traditional Chinese medicines	Cyano, gradient of methanol	C18 step acetonitrile (TFA)	X.G. Chen, et al, <i>J. Chromatogr. A</i> 1040 (2004), p. 169.
Phenolic antioxidants, flavones in beer	polyethylene glycol silica, gradient of acetonitrile	monolithic C18, ZR-carbon, ammonium acetate + H ₃ PO ₄ + acetonitrile	F. Cacciola, et al., <i>J. Sep. Sci.</i> , 29 (2006), p. 2500.
Phenolic antioxidants, flavones in wine	polyethylene glycol silica, or phenyl silica, gradient of acetonitrile	monolithic C18, gradient of acetonitrile in ammonium acetate buffer	F. Cacciola, et al., <i>J. Chromatogr. A</i> , 1149 (2007), p. 73.
Indolic acids metabolites in maize	HS-F5 silica, gradient of acetonitrile in phosphate - perchlorate buffer	ZR-carbon, gradient of acetonitrile in water + perchloric acid, 110 °C	D.R. Stall et al., <i>J. Chromatogr. A</i> , 1122 (2006), p. 123.
Lemon oil extracts	Diol silica, step gradient of ethyl acetate in hexane	Two parallel alternating C18 columns, gradient of acetonitrile in water	I. Francois, et al., <i>J. Chromatogr. A</i> , 1178 (2008) p. 33.

Table 2. NPLCxRPLC, RPLCxNPLC

Application	First dimension: column, eluent	2nd dimension: column, eluent	Reference
Orange essential oil and juice carotenoids	Microbore silica, gradient of n-hexane and ethyl alcohol	monolithic C18 , gradient of 2-propanol, acetonitrile and water	P. Dugo, et al <i>Anal. Chem.</i> 78 (2006), p. 7743.
Polymers: ethylene oxide–propylene oxide (EO–PO) (co)oligomers	C18 Microbore, gradient of acetonitrile	aminopropyl silica isocratic ethanol-dichloromethane-water	[P. Jandera, et al, <i>J. Chromatogr. A</i> 1119 (2006), p. 3.
Lemon oil carotenoids	Microbore silica, Isocratic n-hexane/ ethyl alcohol	monolithic C18, gradient of water and ACN	P. Dugo, et al <i>J. Chromatogr. Sci.</i> 44 (2006), p. 561.
Triacylglycerols in fats and oils	silver-ion column, isocratic acetonitrile in hexane	monolithic C18, non-aqueous gradient of isopropanol in hexane	P. Dugo et al., <i>J. Chromatogr. A</i> , 1112 (2006) p. 269

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Table 3. IEC-RPLC

Application	First dimension: column, eluent	2nd dimension: column, eluent	Reference
Tryptic peptides	PO4-zirconia, sodium phosphate gradient	SB-C18, gradient of acetonitrile and TFA	[D.R. Stoll and P.W. Carr, <i>J. Am. Chem. Soc.</i> 127 (2005), p. 5034.
Proteomics	PL-SAX, pH gradient	PS-DVB RP, pH gradient	M. Pepaj, et al <i>J. Chromatogr. A</i> 1120 (2006), p. 132.
Proteomics	Polymeric beads bonded with diethylaminoethyl and sulfonic acid groups × Gradient KH ₂ PO ₄	C18, gradient of acetonitrile and TFA	K. Wagner, et al <i>J. Chromatogr. A</i> 893 (2000), p. 293
Aerosols	Microbore SCX water (acetic acid) and acetonitrile gradient	C18, gradient of water and acetonitrile	J. Pol, et al, <i>J. Chromatogr. A</i> 1130 (2006), p. 64.
Peptides	Quaternary amine-SAX Stepped guanidine thiocyanate salt	C18, acetonitrile gradient	L.A. Holland and J.W. Jorgenson, <i>J. Microcolumn Sep.</i> 12 (2000), p. 371.

Table 4. NPLCxSEC , SECxRPLC, RPLCxSEC

Application	First dimension: column, eluent	2nd dimension: column, eluent	Reference
Polymers: degradation product of poly(bisphenol A)carbonate (PC)	Alltech Platinum Silica, Chloroform	HSPgel-RT MB-L/M diethylether × chloroform	L. Coulier, et al, <i>J. Chromatogr. A</i> 1070 (2005), p. 79.
Characterization of poly(methyl methacrylate)	Hypersil silica, Isocratic ACN -DCM	PLgel, THF	X.L. Jiang, et al, <i>J. Chromatogr. A</i> 1076 (2005), p. 51
Polystyrene	Hypersil silica, Isocratic THF–hexane	Mixed-C, THF	A. van der Horst and P.J. Schoenmakers, <i>J. Chromatogr. A</i> 1000 (2003), p. 693.
Analysis of a series of styrene- methylacrylate (SMA) copolymers	NovaPak silica , gradient of <i>n</i> -heptane and DCM	HSPgel, chloroform	S.J. Kok, et al <i>J. Chromatogr. A</i> 1098 (2005), p. 104.

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