DryLab® Publications

259. A validated UHPLC-MS method for tryptophan metabolites: Application in the diagnosis of multiple sclerosis
F. Tömösi, G. Kecskeméti, E. K. Cseh, E. Szabó, C. Rajda, R. Kormány, Z. Szabó, L. Vécsei, T. Janáky, *J. Pharm. Biomed. Anal.,* **185**, 1-12 (2020).

258. Updating the European Pharmacopoeia impurity profiling method for terazosin and suggesting alternative columns, D. Enesei, I. Capua, Sz. Fekete, R. Kormány, *J. Pharm. Biomed. Anal.*, **187**, 1-10 (2020).

257. Influence of the pre-elution of solute in initial mobile phase on retention time and peak compression under linear gradient elution
W. Hao, K. Wang, B. Yue, Q. Chen, Y. Huang, J. Yu, D. Li, *J. Chromatogr. A*, **1618**, 1-8 (2020).

256. Structure-Function Assessment and High-Throughput Quantification of Site-Specific Aspartate Isomerization in Monoclonal Antibody Using a Novel Analytical Tool Kit
K. Zhou, X. Cao, J. Bautista, Z. Chen, N. Hershey, R. Ludwig, L. Tao, M. Zeng, T. K. Das, *J. Pharm. Sci.*, **109**, 1, 422-428 (2020).

255. Improving selectivity and performing online on-column fractioning in liquid chromatography for the separation of therapeutic biopharmaceutical products
Sz. Fekete, H. Ritchie, J. Lawhorn, J.-L. Veuthey, D. Guillarme, *J. Chromatogr. A*, **1618**, 1-9 (2020).

254. Simultaneous determination of loading capacity and selectivity in preparative off-line two-dimensional separation: An application for purification of corilagin from Pomegranate flower extracts
G. Adili, G. Sun, M. Abuduaini, Y. Zhao, R. Abdulla, H. A. Aisa, *J. Chromatogr. A*, **1622**, 1-9 (2020).

253. Development of a generic reversed-phase liquid chromatography method for protein quantification using analytical quality-by-design principles
J. Kopp, F. B. Zauner, A. Pell, J. Hausjell, D. Humer, J. Ebner, C. Herwig, O. Spadiut, C. Slouka, R. Pell, *J. Pharm. Biomed. Anal.*, **188**, 1-9 (2020).

252. High-performance liquid chromatography (HPLC)-fluorescence method for determination of bisphenol A diglycidyl ether (BADGE) and its derivatives in canned foods
M. Guo, M. He, J. Zhong, Q. He, B. B. Ismail, G. Chen, D. Liu, *Science of The Total Environment*, **710**, 1-8 (2020).

251. Rational design of mixtures for chromatographic peak tracking applications via multivariate selectivity
D. W. Cook, K. G. Oram, S. C. Rutan, D. R. Stoll, *Anal. Chim. Acta: X*, **2**, July, 1-8 (2019).

250. Computer-assisted UHPLC-MS method development and optimization for the determination of 24 antineoplastic drugs used in hospital pharmacy
N. Guichard, Sz. Fekete, D. Guillarme, P. I. Bonnabry, S. Fleury-Souverain, *J. Pharm Biomed Anal.*, **164,** 395-401 (2019).

249. Is hydrophobic interaction chromatography the most suitable technique to characterize site-specific antibody-drug conjugates?
V.D'Atri, R. Pell, A. Clarke, D. Guillarme, Sz. Fekete, *J. Chromatogr. A,* **1586,** 149-153 (2019).

248. Tuning selectivity in cation-exchange chromatography applied for monoclonal antibody separations, part 1: Alternative mobile phases and fine tuning of the separation
E. Farsang et al, *J. Pharm Biomed Anal,* **168,**138-147 (2019).

247. Development of a design of experiments optimized method for quantification of polysorbate 80 based on oleic acid using UHPLC-MS
J. Puschmann, D.-H. Evers, C. C. Müller-Goymann, M. E. Herbig, *J. Chromatogr. A,* **1599,** 136-143 (2019).

246. Critical review of reports on impurity and degradation product profiling in the last decade
S. Görög, *Trends Anal. Chem.*, **101**, April 2018, 2-16 (2018).

245. Utility of a high coverage phenyl-bonding and wide-pore superficially porous particle for the analysis of monoclonal antibodies and related products
B. Bobály, M. Lauber, A. Beck, D. Guillarme, Sz. Fekete, *J. Chromatogr. A*, **1549**, 11 May, 63-76 (2018).

244. Enantioselective multiple heartcut two-dimensional ultra-high-performance liquid chromatography method with a Coreshell chiral stationary phase in the second dimension for analysis of all proteinogenic amino acids in a single run
Ulrich Woiwode et al, *J. Chromatogr. A*, **1562**, 69-77 (2018).

243. Identification of cis/trans isomers of menaquinone-7 in food as exemplified by dietary supplements
A. Szterk, A. Zmysłowski, K. Bus, *Food Chemistry*, **243**, 403-409 (2018).

242. An overview of experimental designs in HPLC method development and validation
P. K. Sahu, N. R. Ramisetti,T. Cecchi, S. Swain, C. S. Patro, J. Panda, *J. Pharm. Biomed. Anal.*, 147, 5 January, 590-611 (2018).

241. Structure assisted impurity profiling for rapid method development in liquid chromatography
S. Schmidtsdorff, A. H. Schmidt, M. K. Parr, *J. Chromatogr. A,* **1577**, 38-46 (2018).

240. Simultaneous optimization of mobile phase composition and pH using retention modeling and experimental design
N. Rácz, I. Molnár, A. Zöldhegyi, H.-J. Rieger, R. Kormany, *J. Pharm Biomed Anal,* **160,** 336-343 (2018).

239. Automated UHPLC separation of 10 pharmaceutical compounds using software-modeling
A. Zöldhegyi, H.-J. Rieger, I. Molnár, L. Fekhretdinova, *J. Pharm Biomed Anal,* **156,** 379-388 (2018).

238. Implementation of a generic liquid chromatographic method development workflow: Application to the analysis of phytocannabinoids and Cannabis sativa extracts
Sz. Fekete et al, *J. Pharm Biomed Anal.,* **155**, 116-124 (2018).

237. A workflow for column interchangeability in liquid chromatography using modeling software and quality-by-design principles
R. Kormány, K. Tamás, D. Guillarme, Sz. Fekete, *J. Pharm. Biomed. Anal.* , **146**, 220-225 (2017).

236. Current challenges and future prospects in chromatographic method development for pharmaceutical research
F. T. Mattrey et al, *J. Pharm Biomed Anal.*, **95**, 36-46 (2017).

235. Chapter 14 Method development in liquid chromatography
John W. Dolan, Lloyd R. Snyder. *Liquid Chromatography 2nd Edition*, 375-388 (2017).

234. Chapter 1 Milestones in the development of liquid chromatography
Lloyd R. Snyder, John W. Dolan. *Liquid Chromatography 2nd Edition*, 1-15 (2017).

233. Quality by design approach: Regulatory need
J. N. Sangshetti, M. Deshpande, Z. Zaheer, D. B. Shinde, R. Arote, *Arabian Journal of Chemistry*, **10**, May, S3412-S3425 (2017).

232. Chapter 13 Solvent selection in liquid chromatography
G. Ramis-Ramos, M. C. García-Álvarez-Coque, J. A. Navarro-Huerta. *Liquid Chromatography 2nd Edition*, 343-373 (2017).

231. Analysis of recombinant monoclonal antibodies in hydrophilic interaction chromatography: A generic method development approach
B. Bobály, V. D'Atri, A. Beck, D. Guillarme, Sz. Fekete, *J. Pharm. Biomed. Anal.*, **145,** 24-32 (2017).

230. Computer-Assisted Method Development for Small and Large Molecules
Sz. Fekete, R. Kormany, and D. Guillarme, *LCGC Special*, 30, **6**, 14-21 (2017).

229. Separation of antibody drug conjugate species by RPLC: A generic method development approach
Sz. Fekete, **I.** Molnár, D. Guillarme, *J. Pharm. Biomed. Anal.*,**137,** 60-69 (2017).

228. Separation of Atropisomers by Chiral Liquid Chromatography and Thermodynamic Analysis of Separation Mechanism
L. Zhang, Y. Hu, E. Galella, F. P. Tomasella, W. P. Fish, *J. Pharm. Anal.*,**7,** 156-162 (2017).

227. Renewal of an old European Pharmacopoeia method for Terazosin using modeling with mass spectrometric peak tracking
R. Kormány, I. Molnár, J. Fekete, *J. Pharm. Biomed. Anal.*, **135**, 8-15 (2017).

226. Optimization of non-linear gradient in hydrophobic interaction chromatography for the analytical characterization of antibody-drug conjugates
B. Bobály, G. M. Randazzo, S. Rudaz, D. Guillarme, Sz. Fekete, *J. Chromatogr. A*, **1481,** 82-91 (2017).

225. Modeling of HPLC methods using QbD principles in HPLC
I. Molnár, H J. Rieger, R. Kormány, *Advances in Chromatography,* CRC Press: Great Britain, **53**, Chapter 8, 331-350 (2017).

224. Simulation of elution profiles in liquid chromatography—I
L. N. Jeong, R. Sajulga, S. G. Forte, D. R. Stoll, S. C. Rutan, *J. Chromatogr. A*, **1457**, 29 July, 41-49 (2016).

223. Inhibition mechanism of Listeria monocytogenes by a bioprotective bacteria Lactococcus piscium CNCM I-4031
T. Saraoui et al, *Food Microbiology*, 53, Part A, February, 70-78 (2016).

222. An extensive cocktail approach for rapid risk assessment of in vitro CYP450 direct reversible inhibition by xenobiotic exposure
D. Spaggiari, Y. Daali, S. Rudaz, *Toxicology and Applied Pharmacology*, 302, 1 July, 41-51 (2016).

221. In-silico optimization of two-dimensional high-performance liquid chromatography for the determination of Australian methamphetamine seizure samples
L. M. Andrighetto, *Forensic Sci. Int.*, **266,** 511-516 (2016).

220. A platform analytical quality by design (AQbD) approach for multiple UHPLC-UV and UHPLC-MS methods development for protein analysis
J. Kochling, W. Wu, Y. Hua, Q. Guan, J. Castaneda-Merced, *J. Pharm. Biomed. Anal.,* **125,** 130-139 (2016).

219. Practical method development for the separation of monoclonal antibodies and antibody-drug-conjugate Species in hydrophobic interaction chromatography, part 1: Optimization of the mobile phase
M. Rodriguez-Aller, D. Guillarme, A. Beck, Sz. Fekete, *J. Pharm. Biomed. Anal*,**118**, 393-403 (2016).

218. Practical method development for the separation of monoclonal antibodies and antibody-drug-conjugate species in hydrophobic interaction chromatography, part 2: Optimization of the phase system
A. Cusumano, D. Guillarme, A. Beck, Sz. Fekete, *J. Pharm. Biomed. Anal*, **121**, 161-173 (2016).

217. Computer assisted liquid chromatographic method development for the separation of therapeutic proteins
E**.** Tyteca, J.L. Veuthey, G. Desmet, D. Guillarme, Sz. Fekete, *Analyst* , **141**, 5488-5501 (2016).

216. Hydrophobic interaction chromatography for the characterization of monoclonal antibodies and related products
Sz. Fekete, J.L. Veuthey, A. Beck, D. Guillarme, *J. Pharm. Biomed. Anal,* **130**, 3-18 (2016).

215. Effect of temperature on acid–base equilibria in separation techniques. A review.
L. G. Gagliardi, M. Tascon, C. B. Castells, *Analytica Chimica Acta*, 889, 19 August, 35-57 (2015).

214. Protocols for finding the most orthogonal dimensions for two-dimensional high performance liquid chromatography.
D. N. Bassanese et. al, *Talanta*, **134**, 402-408 (2015).

213. Development of a purity control strategy for pemetrexed disodium and validation of associated analytical methodology.
A.Warner, I. Piraner, H. Weimer, K. White, *J. Pharm. Biomed. Anal.*, **105**, 46-54 (2015).

212. Gas phase carbonyl compounds in ship emissions: Differences between diesel fuel and heavy fuel oil operation.
A. A. Reda et. al, *Atmospheric Environment*, **112**, 370-380 (2015).

211. Possibilities of retention prediction in fast gradient liquid chromatography. Part 3: Short silica monolithic columns.
P. Jandera, T. Hájek, *J. Chromatogr. A*, **1410**, 76-89 (2015).

210. Method development for the separation of monoclonal antibody charge variants in cation exchange chromatography. Part I: Salt gradient approach
Sz. Fekete, A. Beck, J. Fekete, D. Guillarme, *J. Pharm. Biomed. Anal,* **102**, 33-44 (2015).

209. Method development for the separation of monoclonal antibody charge variants in cation exchange chromatography. Part II: pH gradient approach
Sz. Fekete, A. Beck, J. Fekete, D. Guillarme, *J. Pharm. Biomed. Anal,* **102,** 282-289 (2015).

208. Establishing column batch repeatability according to Quality by Design (QbD) principles using modeling software
N. Rácz, R. Kormány, J. Fekete, I. Molnár, *J. Pharm. Biomed. Anal,* **108**, 1-10 (2015).

207. Implementation of gradients of organic solvent in micellar liquid chromatography using DryLab®: Separation of basic compounds in urine samples
J. Rodenas-Montano, C. Ortiz-Bolsico, M.J. Ruiz-Angel, M.C. García-Alvarez-Coque, *J. Chromatogr. A*, 1344, 31-41 (2014).

206. Chapter 3: Application of quality by design (QbD) to the development and validation of analytical methods
D. Lloyd, J. Bergum*, Analytical and Bioanalytical Development* (2014).

205. Importance of instrumentation for fast liquid chromatography in pharmaceutical analysis
Sz. Fekete, I. Kohler, S. Rudaz, D. Guillarme, *J. Pharm. Biomed. Anal.*, 87, 105-119 (2014).

204. Multifactorial design principles applied for the simultaneous separation of local anesthetics using chromatography modeling software
C. Chamseddin, T. Jira, *Anal. Methods*,**6,** 6702-6710 (2014).

203. Comparison of liquid chromatography and supercritical fluid chromatography coupled to compact single quadrupole mass spectrometer for targeted in vitro metabolism assay
D. Spaggiari, *J. Chromatogr. A*,**1371,** 244-256 (2014).

202. DryLab® optimized two-dimensional high-performance liquid chromatography for differentiation of ephedrine and pseudoephedrine-based methamphetamine samples
L. M. Andrighetto, P. G. Stevenson, J. R. Pearson, L. C. Henderson, X. A. Conlan, *Forensic Sci. Int.* ,**244,** 302-305 (2014).

201. Robust UHPLC Separation Method Development for Multi-API Product Amlodipine and Bisoprolol: The Impact of Column Selection
R. Kormány, I. Molnár, J. Fekete, D. Guillarme, Sz. Fekete, *Chromatographia,* **77,** 1119-1127 (2014).

200. Rapid UHPLC Method Development for Omeprazole Analysis in a Quality-by-Design Framework and Transfer to HPLC Using Chromatographic Modeling
A. H. Schmidt, M. Stanic, *LCGC N. Am.,* **32**, 126-148 (2014).

199. UHPLC Method Development and Modelling in the Framework of Quality by Design
I. Molnár, H. J. Rieger, A. Schmidt, J. Fekete, R. Kormány, *Column,* **10,** 16-21 (2014).

198. Reliability of simulated robustness testing in fast liquid chromatography, using state-of-the-art column technology, instrumentation and modelling software
R. Kormány, J. Fekete, D. Guillarme, Sz. Fekete, *J. Pharm. Biomed. Anal.*,**89,** 67-75 (2014).

197. Reliability of computer-assisted method transfer between several column dimensions packed with 1.3-5 pm core-shell particles and between various instruments
R. Kormány, J. Fekete, D. Guillarme, Sz. Fekete, *J. Pharm. Biomed. Anal.* **94,**188-195 (2014).

196. Quality by Design in Pharmaceutical Analysis Using Computer Simulation with UHPLC
R. Kormány, I. Molnár, J. Fekete, *LCGC N. Am.* **32,** 354-363 (2014).

195. In silico robustness testing of a compendial HPLC purity method by using of a multidimensional design space build by chromatography modeling - Case study pramipexole
A. H. Schmidt, M. Stanic, I. Molnár, *J. Pharm. Biomed. Anal.* **91,** 97-107 (2014).

194. Analysis of sulfonamide residues in real honey samples using liquid chromatography with fluorescence and tandem mass spectrometry detection
A. Tölgyesi, R. Berky, K. Bekesi, Sz. Fekete, J. Fekete, V.K. Sharma, *J. Liq. Chrom. Rel. Technol.* **36,** 1105-1125 (2013).

193. **Application of Quality by Design Principles to a Pharmaceutical Sample Using UHPLC Method Development With Modeling Technologies**
R. Kormány, H J. Rieger, I. Molnár, *LCGC*,**31,** 20-27 (2013).

192. **Optimizing Selectivity during Reversed-Phase HPLC Method Development: Prioritizing Experimental Conditions**
L.R. Snyder, J.W. Dolan, *J. Chromatogr. A,* **1302,** 45-54 (2013).

191. **Exploring better column selectivity choices in ultra-high performance liquid chromatography using Quality by Design principles**
R. Kormány, I. Molnár, H. J. Rieger, *J. Pharm.Biomed. Anal,* **80,** 79-88 (2013).

190. **Determination of alcohols in essential oils by liquid chromatography with ultraviolet detection after Chromogenic derivatization**
J. Rodenas-Montano, E.J. Carrasco-Correa, M. Beneito-Cambra, G. Ramis-Ramos, J.M. Herrero-Martmez, *J. Chromatogr.*,**1296,** 157-163 (2013).

189. **Determination of the design space of the HPLC analysis of water-soluble vitamins**
H. A. Wagdy, R.S. Hanafi, R.M. El-Nashar, R.M., H.Y. Aboul-Enein, *J. Sep. Science*,**36**, 1703-1710 (2013).

188. **Comparison of supercritical fluid chromatography and reverse phase liquid chromatography for the impurity profiling of the antiretroviral drugs lamivudine/BMS-986001/efavirenz in a combination tablet**
A J. Alexander, L. Zhang, T.F. Hooker, F.P. Tomasella, *J. Pharm.Biomed. Anal,* **78-79,** 243-251 (2013).

187. **Classification of LC columns based on the QSRR method and selectivity toward moclobemide and its metabolites**
A. Plenis, I. Oledzka, T. Baczek, *J. Pharm.Biomed. Analysis*,**78-79,** 161-169 (2013).

186. **A High-Performance Liquid Chromatographic Method for Simultaneous Determination of 21 Free Amino Acids in Tea**
M. Zhao, Y. Ma, L. Dai, D. Zhang, J. Li, W. Yuan, Y. Li, H. Zhou, *Food Anal. Methods*,**6,** 69-75 (2013).

185. **Using an innovative Quality-by-Design approach for development of a stability indicating UHPLC method for ebastine in the API and pharmaceutical formulations**
A. Schmidt, I. Molnár, *J. Pharm. Biomed. Anal,* **78-79,** 65-74 (2013).

184. **Chromatography Modelling in High Performance Liquid Chromatography Method Development**
I. Molnár, H**.** J. Rieger, R. Kormány, *Chromatography Today*,**Feb/Mar,** 3-8 (2013).

183. **Predictability of enantiomeric chromatographic behaviour on various chiral stationary phases using typical reversed phase modeling software**
H.A. Wagdy, R.S. Hanafi, R.M. El-Nashar, H.Y. Aboul-Enein, *Chirality*,**25,** 506-513 (2013).

182. **Intergroup cross-comparison for the evaluation of data-interchangeability from various chromatographic tests**
C. Chamseddin, I. Molnár, T. Jira, *J. Chromatogr.* **1297,** 146-156 (2013).

181. **ICHQ2 (R1) Validation of Analytical Procedures: Challenges and Opportunities**
D. Elder, *EPR*,**18**, 7 (2013).

180. **New trends in reversed-phase liquid chromatographic separations of therapeutic peptides and proteins: Theory and applications**
Sz. Fekete, J.L. Veuthey, D. Guillarme, *J.Pharm.Biomed.Analysis*,**69,** 9-27 (2012).

179. **Analysis of recombinant monoclonal antibodies by RPLC: Toward a generic method development approach**
Sz. Fekete, S. Rudaz, J. Fekete, D. Guillarme, *J.Pharm.Biomed.Anal,* **70**, 158-168 (2012).

178. **Quality by Design: Multidimensional exploration of the design space in high performance liquid Chromatography method development for better robustness before validation**
K. Monks, I. Molnár, H.J. Rieger, B. Bogáti, E. Szabo, *J. Chrom. A*,**1232**, 218-230 (2012).

177. **Enhancing the quality of separation in one-dimensional peptide mapping using mathematical transformation**
R. Berky, Sz. Fekete, J. Fekete, *Chromatographia,* **75,** 305-312 (2012).

176. **Predicting the chromatographic retention of polymers: Application of the polymer model to poly (styrene/ethyl acrylate) copolymers**
M.A. Bashir, W. Radke, *J. Chrom. A,* **1225,** 107-112 (2012).

175. **Determination of lipophilicity for antitumor acridinone derivatives supported by gradient high- performance liquid chromatography method**
M. Koba, M. Belka, T. Ciesielski, T. Baczek, *Cen. Eur. J. Chem.*,**10,** 216-223 (2012).

174. **A general strategy for performing temperature-programming in high performance liquid chromatography-Further improvements in the accuracy of retention time predictions of segmented temperature gradients**
S. Wiese, T. Teutenberg, T.C. Schmidt, *J. Chrom. A*,**1222,** 71-80 (2012).

173. **Validation of the extended Tanaka column characterization protocol by multivariate analysis of chromatographic retention of low-molecular-weight analytes on reversed phase columns using methanol and acetonitrile as organic modifiers**
M.R. Euerby, M. James, B.O. Axelsson, O. Rosen, P. Petersson, *J. Sep. Science*,**35,** 2592- 2598 (2012).

172. **Influence of LC retention data on antitumor acridinones[1] classification evaluated by factor analysis method**
M. Koba, T. Baczek, T. Ciesielski, *Com. Chem. High T. Scr.*,**15**, 674-683 (2012).

171. **Development of difference spectrophotometry method for estimation of lercanidipine in tablet dosage form**
V.A. Bairagi, C.D. Patil, Y.S. Ahire, Y.T. Sonawane, Res. *J. Pharm. Biol Chem. Science,* **3**, 148-155 (2012).

170. **Computer-assisted HPLC method development for determination of tolmetin and possible kinetic modulators of its oxidative metabolism in vivo**
R. Hanafi, H. Spahn-Langguth, L. Mahran, O. Heikal, A. Hanafy, H J. Rieger, I. Molnar, H.Y. Aboul-Enein, *Chromatographia*,**75,** 469-477 (2012).

169. **Practical Application of Quality by Design Principles to the Development of an HPLC Assay Method for an API and Impurities**
K. E. Monks, I. Molnar, H J. Rieger, F. Vogel, *Column*, **8**, 2-9 (2012).

168. **Combined use of algorithms for peak picking, peak tracking and retention modelling to optimize the chromatographic conditions for liquid chromatography-mass spectrometry analysis of fluocinolone acetonide and its degradation products**
M.J. Fredriksson, P. Petersson, B.O. Axelsson, D. Bylund, *Anal. Chim. Acta*,**704,** 180-188 (2011).

167. **Determination of stilbene derivatives in Burgundy red wines by ultra-high-pressure liquid chromatography**
L Boutegrabet, A. Fekete, N. Hertkorn, Y. Papastamoulis, P. Waffo-Teguo, J. M. Merillon, P. Jeandet, R. D. Gougeon, P. Schmitt- Kopp l in, *Anal. Bioanal. Chem.*,**401,** 1517-25 (2011).

166. **Fast high performance liquid chromatography separations for proteomic applications using Fused-Core® silica particles**
S. A. Schuster, B. E. Boyes, B. M. Wagner, J. J. Kirkland, J. *Chromatogr. A,* **1228,** 232-241 (2011).

165. **X-ray powder diffractometry and liquid chromatography studies of sibutramine and its analogues content in herbal dietary supplements**
K. Styputkowskaa, A. Btazewicza, J. Maurin, K. Sarna, Z. Fijatek, *J. Pharm. Biomed. Anal.,* **56,** 969-975 (2011).

164. **Baclofen ester and carbamate prodrug candidates: a simultaneous chromatographic assay, resolution optimized with DryLab**
R. Hanafi, S. Mosad, K. Abouzid, R. Niess, H. Spahn-Langguth, *J. Pharm. Biomed. Anal.,* **56,** 569-576 (2011).

163. **A stepwise strategy employing automated screening and DryLab modeling for the development of robust methods for challenging high performance liquid chromatography separations: a case study**
K. Jayaraman, A. J. Alexander, Y. Hu, F.P. Tomasella, *Anal. Chim. Acta*,**696,** 116-24 (2011).

162. **Expanding the term "Design Space" in high performance liquid chromatography**
K.E. Monks, H J. Rieger, I. Molnar, *J. Pharm. Biomed. Analysis*,**56**, 874-879 (2011).

161. **From Csaba Horvath to Quality by Design: Visualizing Design Space in Selectivity Exploration of HPLC Separations**
I. Molnar, K.E. Monks, *Chromatographia*, **73**, 5-14 (2011).

160. **Experimental Combination of Method Development Strategies in a Working Environment of Different Instrumental Set-ups**
I. Molnar, K.E. Monks, H.J. Rieger, B.T. Erxleben, *LCGC,* 2-8 (2010).

159. **3-Dimensional Retention Modelling of Gradient Time, Ternary Solvent-Strength and Temperature of the Reversed-Phase Gradient Liquid Chromatography of a Complex Mixture of 22 Basic and Neutral Analytes using**

DryLab® 2010
M.R. Euerby, G. Schad, H.J. Rieger, I. Molnar, *Chromatogr. Today*,**Dec.,** 13-20 (2010).

158. Strategy for Improving HPLC: Retention Time Prediction Accuracy Using Chromatography Simulation
A. Makarov, Z. Chen, F. Chan, R. Bhashyam, R. LoBrutto, R. Vegesna, *Am. Lab.,* **Oct.,** 26-32 (2010).

157. Aspects of the "Design Space" in High Pressure Liquid Chromatography Method Development
I. Molnar, H.J. Rieger, K.E. Monks, *J. Chromatogr. A,* **1217,** 3193-3200 (2010).

156. Development of Quality-By-Design Analytical Methods
F. G. Vogt, A. S. Kord, *J. Pharm. Sci.*,**100,** 797- 812 (2010).

155. Optimization of separation and determination of moxifloxacin and its related substances by RP-HPLC
P. Djurdjevic, A. Cirica, A. Djordjevic, M. Jelikic Stankov, *J. Pharm. Biomed. Anal.,* **50,** 117-126 (2009).

154. Application of Multidimensional Screening and Analysis and Computer Simulation Software for Rapid HPLC Method Development
C. C. Corredor, J. A. Castoro, J. Young, *J. Pharm. Innov.,* **4,** 121-132 (2009).

153. Rapid High Performance Liquid Chromatography Method Development with High Prediction Accuracy, using 5 cm Long Narrow Bore Columns Packed with Sub-2pm Particles and Design Space Computer Modeling
Sz. Fekete, J. Fekete, I. Molnar, K. Ganzler, *J. Chromatogr. A,* **1216,** 7816-7823 (2009).

152. Validated UPLC Method for the Fast and Sensitive Determination of Steroid Residues in Support of Cleaning Validation in Formulation Area
Sz. Fekete, J. Fekete, K. Ganzler, *J. Pharm. Biomed. Anal.*, **49,** 833-838 (2009).

151. LC Determination of Lercanidipine and Its Impurities Using DryLab Software and Experimental Design Procedures
I. Popovic, D. Ivanovic, M. Medenica, A. Malenovic, B. Jancic-Stojanovic, *Chromatographia,* **67,** 449-454 (2008).

150. A Stepwise Strategy for Developing a Robust HPLC Separation for a Novel Diabetes Compound
K. Jayaraman, F. Hu, F. Tomasella, M. Davies, Am. *Chem. Society,* Middle Atlantic Regional Meeting, Proceedings, 191 (2008).

149. Application of a Column Selection System and DryLab software for High-performance Liquid Chromatography Method Development
R. M. Krisko, K. McLaughlin, M. J. Koenigbauer, C. E. Lunte, *J. Chromatogr. A,* **1122,** 186-193 (2006).

148. Retention Modelling in Ternary Solvent Gradient Elution Reversed Phase Chromatography using 30 mm Columns
M. R. Euerby, F. Scannapieco, H.J. Rieger, I. Molnár, *J. Chromatogr. A,* **1121,** 219-227 (2006).

147. Comparison of Retention Models for Polymers 1. Polyethylene glycols
M. A. Bashir, W. Radke, *J.Chromatogr. A,* **1131,** 130-141 (2006).

146. Fundamentals of Reversed Phase Chromatography: Solvophobic Theory Redux
A. Vailaya, *Presentation held at "Csaba Horvath Memorial Session" during HPLC 2006*,Presentation

145. Searching for Robust HPLC Methods: Csaba Horvath and the Solvophobic Theory
I. Molnár, *Chromatographia,* **62,** (2005).

144. Examples of Computer-assisted Robustness Studies
G. Kleinschmidt, R. Hohl, J. Ernrier, J.H. Miller, *Method Validation in Pharmaceutical Analysis*,126-141, Wiley-VCH, Wein heim (2005).

143. Microemulsion Electrokinetic Chromatography of Drugs Varying in Charge and Hydrophobicity, Part II: Strategies for Optimization of Separation
V. Harang, S. P. Jacobsson, and D. Westerlund, *Electrophoresis A.,* **25,** 1792- 1809 (2004).

142. Computer-Assisted Method Development and Optimization in High-Performance Liquid Chromatography
T.H. Hoang, D. Cuerrier, S. McClintock, M. Di Maso, *J.Chromatogr. A*,**991,** 281-287 (2003).

141. Computerized Design of Robust Gradient HPLC Methods
I. Molnár and H.J. Rieger, *Am. Chem. Society,* Middle Atlantic Regional Meeting, Proceedings, **261** (2002).

140. Optimizing Multilinear Gradients in HPLC
T. Jupille, L. Snyder, I. Molnár, *LCGC Europe*,**Sep.,** 2-6 (2002).

139. Advanced High Performance Liquid Chromatography Method Development: Discovering Unexpected Choices in Chromatography
H.J. Rieger, I. Molnár, *J. Chromatography*,**948**, 43-49 (2002).

138. Computerized Design of Separation Strategies in Reversed-phase Liquid Chromatography: Development of DryLab software
I. Molnár, J.*Chromatogr. A*,**965,** 175-194 (2002).

137. Temperature Selectivity in Reversed-Phase High Performance Liquid Chromatography
J. W. Dolan, *J. Chromatogr. A.*,**965,** 195-205 (2002).

136. Two-Dimensional Optimization Using Different Pairs of Variables for the Reversed-phase High-performance Liquid Chromatographic Separation of a Mixture of Acidic Compounds
T.H. Jupille, J.W. Dolan, L.R. Snyder, I. Molnár, *J. Chromatogr,* **948,** 35-41 (2002).

135. Computer-assisted Optimization in the Development of a High Performance Liquid Chromatographic Method for the Analysis of Kava Pyrones in Piper methysticum Preparations
A.H. Schmidt, I. Molnár, *J. Chromatogr.,* **948**, 51-63 (2002).

134. Advanced High-Performance Liquid Chromatography Method Development: Discovering Unexpected Choices in Chromatography
H.J. Rieger, I. Molnár, *J. Chromatogr.,* **948,** 43-49 (2002).

133. Lipophilicity and pKa Estimates from Gradient High-Performance Liquid Chromatography
R. Kaliszan, P. Haber, T. Baczek, D. Siluk, K. Valko, *J. Chromatogr. A.,* **965,** 117-127 (2002).

132. Computer Optimization of the RP-HPLC Separation of Some Taxoids from Yew Extracts
M.L. Hajnos, M. Waksmundzka-Hajnos, K. Glowniak, *Acta Chromatogr.,* **12,** 211 (2002).

131. Variability of Column Selectivity for Reversed-Phase High-Performance Liquid Chromatography: Compensation by Adjustment of Separation Conditions
J.W. Dolan, L.R. Snyder, T.H. Jupille, N.S. Wilson, *J. Chromatogr. A.,* **960,** 51-67 (2002).

130. Use of DryLab to Compare Octadecylsilane and Carbon Supports for Reversed-phase Chromatography of Triazine Herbicide Test Solutes
A. P. Schellinger, Y. Mao, P. W. Carr, *Anal. Bioanal. Chem.* **373** (2002) 587-594.

129. Isocratic Liquid Chromatographic Method for the Analysis of Roxithromycin and Structurally Related Substances in Bulk Samples
H.K. Chepkwony, RN. Kamau, E. Rodriguez, E. Roets, J. Hoogmartens, *Chromatographia,* **54,** 725-729 (2001).

128. Unexpected Results in Chromatography
I. Molnár, *LCGC Int.*,**4,** 231-237 (2001).

127. Computer-Assisted Scale-Up from Analytical HPLC to Preparative MPLC for the Separation of Phenolic Compounds, T. Wennberg, J.P Rauha, H. Vuorela, *Chromatographia,* **53**, 240-245 (2001).

126. Automatization for Development of HPLC Methods
M. Pfeffer H. Windt, Fresenius *J. Anal Chem.,***369,** 36-41 (2001).

125. Computer-Assisted High-Performance Liquid Chromatography Method Development with Applications to the Isolation and Analysis of Phytoplankton Pigments
L. V. Heukelem, C. S. Thomas, *J. Chromatogr. A.* **910,** 31- 49 (2001).

124. Computer-Assisted Optimization of Reversed-Phase HPLC Isocratic Separations of Neutral Compounds, T. Baczek, R. Kaliszan, H. A. Claessens, M.A. van Strafen, *LCGC Europe,* **78,** 99-106 (2001).

123. Computer Simulation for the Convenient Optimization of Isocratic Reversed-Phase Liquid Chromatography Separations by Varying Temperature and Mobile Phase Strength (%B)
R.G. Wolcott, J.W. Dolan, L.R. Snyder, *J. Chromatogr. A.,* **869,** 3-25 (2000).

122. Essential Guides to Method Development in Liquid Chromatography

J.W. Dolan, L.R. Snyder Encyclopedia of Separation Science, in: Ian D. Wilson, Ted R. Adlard, Mike Cooke, Colin F. Poole (Eds.), (Academic Press, London, 2000), Appendix 2, 4626-4636.

121. **Selectivity Differences for C18 Reversed-Phase Columns as a Function of Temperature and Gradient Steepness I. Optimizing Selectivity and Resolution**
J.W. Dolan, L.R. Snyder, T. Blanc, L. Van Heukelem, *J.Chromatogr. A.,* **897,** 37-50 (2000).

120. **Selectivity Differences for C18 Reversed-Phase Columns as a Function of Temperature and Gradient Steepness II. Minimizing Column Reproducibility Problems**
J.W. Dolan, L.R. Snyder, T. Blanc, *J. Chromatogr. A.,* **897,** 51 (2000).

119. **Reversed-Phase Separation of Achiral Isomers by Varying Temperature and Either Gradient Time or Solvent Strength**
L.R. Snyder, J.W. Dolan, *J.Chromatogr. A,* **892**, 107-121 (2000).

118. **Gradient Elution Chromatography**
J.W. Dolan, L.R. Snyder, *EAC: Instrumentation and Applications*, R.A. Meyers, (Ed.), John Wiley & Sons, Ltd., Chichester 13, 11342-11360 (2000).

117. **Control of column temperature in reversed-phase liquid chromatography**
R.G. Wolcott, *J. Chromatogr. A,* **869,** 211-230 (2000).

116. **Transferability of Liquid Chromatography Methods Carried Out at Temperatures Other than Ambient**
R. G. Wolcott, J.W. Dolan, L.R. Snyder, S.R. Bakalyar, M.A. Arnold, J.A. Nichols, *J. Chromatogr. A.,* **869**, 211 (2000).

115. **Determination of Albendazole and its Main Metabolites in Ovine Plasma by Liquid Chromatography with Dialysis as an Integrated Sample Preparation Technique**
P. Chiap, B. Evrard, M.A. Bimazubute, P. de Tullio, Ph. Hubert, L. Delattre, J. Crommen, *J.Chromatogr. A.,* **870,** 121-134 (2000).

114. **Computer Simulation for the Convenient Optimization of Isocratic Reversed-Phase Liquid Chromatography Separations by Varying Temperature and Mobile Phase Strength (%B)**
R.G. Wolcott, J.W. Dolan, L.R. Snyder, *J.Chromatogr. A,* **869**, 3 (1999).

113. **Reversed-Phase Separation of Complex Samples by Optimizing Temperature and Gradient Time I. Peak Capacity Considerations**
J.W. Dolan, L.R. Snyder, N.M. Djordjevic, D.W. Hill, L. Van Heukelem, T.J. Waeghe, *J. Chromatogr. A.,* **857**, 1-20 (1999).

112. **Reversed-Phase Separation of Complex Samples by Optimizing Temperature and Gradient Time II. The Use of 2-Run Assay Procedures**
J.W. Dolan, L.R. Snyder, N.M. Djordjevic, D.W. Hill, L. Van Heukelem, T.J. Waeghe, *J.Chromatogr.* 857 (1999) 21-39

111. **Reversed-Phase Separation of Complex Samples by Optimizing Temperature and Gradient Time III. Improving the Accuracy of Computer Simulation**
J.W. Dolan, L.R. Snyder, L.C. Sander, P. Habner, T. Baczek, R. Kaliszan, *J.Chromatogr.,* **857,** 41-68 (1999).

110. **A New Approach for the Reversed-Phase Separation of Peptide and Protein Mixtures**
J.W. Dolan, L.R. Snyder, *LCGC,* **17,** 17-24 (1999).

109. **Critical comparison of retention models for optimization of the separation of anions in ion chromatography III. Anion chromatography using hydroxide eluents on a Dionex ASII stationary phase**
J. E. Madden, N. Avdalovic, P.E. Jackson, P.R. Haddad, *J. Chromatogr. A,* **837,** 65-74 (1999).

108. **Reversed-Phase Gradient Elution: How to Get Better Results with Less Work**
I. Molnár, L.R. Snyder, J.W. Dolan, *LCGC Intern.,* **11**, (3741998).

107. **Systematic Approaches to HPLC Method Development for Reversed-Phase Separation**
L.R. Snyder, J.W. Dolan, *Chem. Anal (Warsaw),* **43**, 495 (1998).

106. **Simultaneous Variation of Temperature and Gradient Steepness for Reversed-Phase HPLC Method Development I. Application to 14 Different Samples Using Computer Simulation**
J.W. Dolan, L.R. Snyder, N, M. Djordjevic, D.W. Hill, D.L. Saunders, L. Van Heukelem, T.J. Waeghe, *J. Chromatogr. A,* **803,** 1-31 (1998).

105. **Simultaneous Variation of Temperature and Gradient Steepness for Reversed-Phase HPLC Method Development II. The Use of Further Changes in Conditions**

J.W. Dolan, L.R. Snyder, D.L. Saunders, L. Van Heukelem, *J. Chromatogr. A,* **803**, 33-50 (1998).

104. The Linear-Solvent-Strength Model of Gradient Elution
L.R. Snyder, J.W. Dolan, *Adv. Chromatogr.*, **38,** 157- 160 (1998).

103. A Computer-Assisted Strategy for HPLC Method Development. II. Simultaneous Changes in Temperature and Gradient Steepness Combined with Change in One or More Other Variables
J.W. Dolan, L.R. Snyder, D.L. Saunders, L. Van Heukelem, *J. Chromatogr. A,* **803** (1998).

102. Maintaining Fixed Band Spacing when Changing Column Dimensions in Gradient Elution
J.W. Dolan, L.R. Snyder, *J. Chromatogr.,* **799**, 21-34 (1998).

101. Validation of Robust Chromatography Methods Using Computer-Assisted Method Development for Quality Control II
I. Molnár, *LCGC Int.* **10,** 32 (1997).

100. Computer-Assisted Separation by HPLC with Diode Array Detection and Quantitative Determination of Furanocoumarins from Archangelica Officinalis
W. Markowski, K.L. Czapinska, *Chem. Anal. (Warsaw),* **42,** 353 (1997).

99. Computerized Optimization of the High-Performance Liquid Chromatographic Enantioseparation of a Mixture of 4-dinitrophenyl Amino Acids on a Quinine Carbamate-Type Chiral Stationary Phase Using DryLab
M. Lämmerhofer, P. Di Eugenio, I. Molnár, and W. Lindner, *J. Chromatogr. B,* **689**, 123-135 (1997).

98. Changing Reversed-Phase High Performance Liquid Chromatography Selectivity. Which Variables Should be Tried First?
L.R. Snyder, *J. Chromatogr. B,* **689,** 105-115 (1997).

97. Selectivity Control in HPLC Method Development
L.R. Snyder, J.W. Dolan, I. Molnár, N. M. Djordjevic, *LCGC,* **15**, 136 (1997).

96. Combined Use of Temperature and Solvent Strength in Reversed-Phase Gradient Elution I. Predicting Separation as a Function of Temperature and Gradient Conditions
P.L. Zhu, L.R. Snyder, J.W. Dolan, N.M. Djordjevic, D.W. Hill, L.C. Sander, T.J. Waeghe, *J. Chromatogr. A,* **756**, 21-39 (1996).

95. Combined Use of Temperature and Solvent Strength in Reversed-Phase Gradient Elution II. Comparing Selectivity for Different Samples and Systems
P.L. Zhu, J.W. Dolan, L.R. Snyder, *J. Chromatogr. A,* **756,** 41-50 (1996).

94. Combined Use of Temperature and Solvent Strength in Reversed-Phase Gradient Elution III. Selectivity for Ionizable Samples as a Function of Sample Type and pH
P.L. Zhu, J.W. Dolan, L.R. Snyder, D.W. Hill, L. Van Heukelem, T.J. Waeghe, *J. Chromatogr. A*, **756,** 51-62 (1996).

93. Combined Use of Temperature and Solvent Strength in Reversed-Phase Gradient Elution. IV. Selectivity for Neutral (non-ionized) Samples as a Function of Sample Type and Other Separation Conditions
P.L. Zhu, J.W. Dolan, L.R. Snyder, N.M. Djordjevic, D.W. Hill, J.-T. Lin, L.C. Sander, L. Van Heukelem, *J. Chromatogr. A,* **756,** 63-72 (1996).

92. Computer Optimization for RP-HPLC Separation of Some Nucleosides
T.H. Dzido, A. Sory, *Chem. Anal. (Warsaw),* **41,** 113 (1996).

91. Validation of Robust Chromatography Methods Using Computer-Assisted Method Development for Quality Control
I. Imre Molnár, *LCGC Int.,* Jan (1996), 9.

90. High-Performance Liquid Chromatographic Separation of the Impurities in a Pharmaceutical Raw Material with The Aid of Computer Simulation
H.W. Bilke, I. Molnár, Ch. Gernet, *J. Chromatogr. A,* **729**, 189-195 (1996).

89. The Optimization of Peptide Mapping via Computer Simulation, L.R. Snyder
New Methods in Peptide Mapping for the Characterization of Proteins, W. Hancock, ed., CRC Press, 1996, pp. 31.

88. Initial Experiments in HPLC Method Development I. Use of a Starting Gradient Run
L.R. Snyder, J.W. Dolan, *J.Chromatogr. A*, **721,** 3-14 (1996).

87. **Determination of 1, 8-dihydroxyanthranoids in senna**
W. Metzger, K. Reiff *J. Chromatogr. A,* **740**, 133-138 (1996).

86. **Initial Experiments in HPLC Method Development II. Recommended Approach and Conditions for Isocratic Separation**
J.L. Lewis, L.R. Snyder, J.W. Dolan, *J. Chromatogr. A.,* **721,** 15-29 (1996).

85. **New Approaches to HPLC Method Development**
L.R. Snyder, *Today's Chemist at Work*, **5**, 29 (1996).

84. **Computer-Assisted Rapid Development of Gradient High-Performance Liquid Chromatographic Methods for the Analysis of Antibiotics**
R. Bonfichi, *J. Chromatogr. A,* **678**, 213-221 (1994).

83. **Separation of Arachidonic Acid Metabolites by On-Line Extraction and Reversed-Phase High-Performance Liquid Chromatography Optimized by Computer Simulation**
H. Fritsch, I. Molnár, M. Wurl, *J. Chromatogr. A,* **684,** 65- 75 (1994).

82. **Temperature as a Variable in Reversed-Phase HPLC Separation of Peptide and Protein Samples I. Optimizing the Separation of a Growth Hormone Tryptic Digest**
W. Hancock, R.C. Chloupek, J.J. Kirkland, L.R. Snyder, *J.Chromatogr. A,* **686**, 31-43 (1994).

81. **Temperature as a Variable in Reversed-Phase HPLC Separation of Peptide and Protein Samples II. Selectivity Effects Observed in the Separation of Several Peptide and Protein Mixtures**
R.C. Chloupek, W. Hancock, B.A. Marchylo, J.J. Kirkland, B. Boyes, L.R. Snyder, *J.Chromatogr. A,* **686,** 45-59 (1994).

80. **Computergestutzte Optimierung in der Chromatographie**
I. Molnár, *LaborPraxis*, **X (12),** 40 (1993).

79. **Use of Computer Simulations in the Development of Gradient and Isocratic High-Performance Liquid Chromatography Methods for Analysis of Drug Compounds and Synthetic Intermediates**
L. Wrisely, *J.Chromatogr.,* **628**, 191-198 (1993).

78. **Computer-assisted Optimization of the Gas Chromatographic Separation of Equine Estrogens**
A. Jayatilaka, C. F. Poole, *J.Chromatogr.,* **617**, 19-27 (1993).

77. **Optimization of the Separation of the Rp and Sp Diastereomers of Phosphate-methylated DNA and RNA Dinucleotides**
A.J.J.M. Coenen, L.H.G. Henckens, Y. Mengerink, Sj. van der Wal, P.J.L.M. Quaedifleig, L.H. Koole, E.M. Meijer, *J. Chromatogr.,* **596**, 59-66(1992).

76. **Multiparameter Computer Simulation for HPLC Method Development,** J.W. Dolan, J.A. Lewis, W.D. Raddatz, L.R. Snyder, Am. *Lab.* 24(1992)40D

75. **Computer Simulation as a Tool for the Rapid Optimization of the High-Performance Liquid Chromatographic Separation of a Tryptic Digest of Human Growth Hormone**
R.C. Chloupek, W.S. Hancock, L.R. Snyder, *J.Chromatogr.,* **594**, 65-73 (1992).

74. **Computer-Assisted Enhancement of Gas Chromatographic Principles for the Teaching Laboratory. Prediction of Retention Data and Chromatographic Separation**
R.L. Grob, E.F. Barry, S. Leepipatpiboon, J.M. Ombaba, L.A. Colon, *J. Chromatogr. Sci.,* **30,** 177-183 (1992).

73. **Application of the Gradient Elution Technique. Demonstration with a Special Test Mixture and the DryLab G*/plus* Method Development Software**
R. Dappen, I. Molnár, *J.Chromatogr.,* **592**, 133-141 (1992).

72. **Determination of By-Products in Atenolol**
H. Hoffmann, I. Molnár, *Pharm. Ztg. Wiss.,* **1**, 137 (1992).

71. **Software for Chromatographic Method Development**
A. Drouen, J. W. Dolan, L.R. Snyder, A. Poile, P. Schoenmakers, *LCGC,* **9**, 714 (1991).

70. **Practical Applications of Computer Simulation for Gas Chromatography Method Development**
G.N. Abbay, E.F. Barry, S. Leepipatpiboon, T. Ramstad, M.C. Roman, R.W. Siergiej, L.R. Snyder, W.L. Winniford, *LCGC*, **9**, 1001 (1991).

69. **Computer Simulation of Gradient Elution Separation. Accuracy of Predictions for Nonlinear Gradients**
D.D. Lisi, J.D. Stuart, L.R. Snyder, *J. Chromatogr.,* **555**, 1-19 (1991).

68. **Separation and Detection of Oxidation Products in Neurolite Raw Material**
P.A. Ryan, B.A. Ewels, J.L. Glajch, *J.Chromatogr.,* **550**, 549-558 (1991).

67. **Computer Simulation of Isocratic Retentions of Alkyl ketones Using Gradient Data**
J.D. Stuart, D.D. Lisi, *J. Chromatogr.,* **550,** 77-86 (1991).

66. **Computer-Aided Optimization of High-Performance Liquid Chromatographic Analysis of Flavonoids from Some Species of the Genus Althaea**
T.H. Dzido, E. Soczewinski, J. Gudej, *J. Chromatogr.,* **550**, 71-76 (1991).

65. **Fast Development of a Robust High-Performance Liquid Chromatographic Method for *Ginkgo biloba Based* on Computer Simulation**
I. Molnár, K.H. Gober, B. Christ, *J. Chromatogr.,* **550,** 39-49 (1991).

64. **Computer Simulation as an Aid in Method Development for Gas Chromatography III. Examples of Its Application**
L.R. Snyder, D.E. Bautz, J.W. Dolan, *J.Chromatogr.,* **541,** 35-58 (1991).

63. **Computer Simulation as an Aid in Method Development for Gas Chromatography II. Changes in Band Spacing as a Function of Temperature**
J.W. Dolan, L.R. Snyder, D.E. Bautz, *J.Chromatogr.,* **541,** 21-35 (1991).

62. **Computer Simulation as an Aid in Method Development for Gas Chromatography I. The Accurate Prediction of Separation as a Function of Experimental Conditions**
D.E. Bautz, J.W. Dolan, L.R. Snyder, *J.Chromatogr.,* **541,** 1-19 (1991).

61. **High-Performance Liquid Chromatography Retention Index and Detection of Nitrated Polycyclic Aromatic Hydrocarbons**
T-Y. Liu, A. Robbat Jr., *J.Chromatogr.,* **539,** 1-14 (1991).

60. **Computer-Assisted HPLC Method Development in a Pharmaceutical Laboratory**
N.G. Mellish, *LCGC,* **9**,845 (1991).

59. **Computer-Assisted Optimization of Temperature-Programmed Gas Chromatographic Separations**
D.E. Bautz, J.W. Dolan, Am. *Lab.,* **22**, 40T (1990).

58. **Separation of Large Biomolecules by Gradient Elution**
L.R. Snyder, *HPLC of Biological Macromolecules*, F.E. Regnier and K.M. Gooding, eds., Marcel Dekker, 1990, 231.

57. **The 30S Ribosomal Proteins as a Model for the Optimized Separation of Large Biomolecules by Reversed-Phase HPLC**
B.F.D. Ghrist, B.S. Cooperman. Snyder in *HPLC of Biological Macromolecules*, F.E. Regnier and K.M. Gooding, eds., Marcel Dekker, 1990, pp. 403.

56. **Computer Simulation (Based on a Linear-Elution-Strength Approximation) as an Aid for Optimizing Separations by Programmed-Temperature GC**

D.E. Bautz, J.W. Dolan, W.D. Raddatz, L.R. Snyder, *Anal. Chem.,* **62**, 1560-1567 (1990).

55. **High-Performance Liquid Chromatographic Computer Simulation Based on a Restricted Multiparameter Approach II. Applications**
L.R. Snyder, J. W. Dolan, D.C. Lommen, *J.Chromatogr.,* **535,** 75-92 (1990).

54. **High-Performance Liquid Chromatographic Computer Simulation Based on a Restricted Multiparameter Approach. I. Theory and Verification**
J. W. Dolan, D.C. Lommen, L.R. Snyder, *J.Chromatogr.,* **535**, 55-74 (1990).

53. **Computer Simulation for Optimization of HPLC of Some Phenolic Pollutants**
W. Markowski, T.H. Dzido, E. Soczewinski, *J.Chromatogr.,* **523,** 81-89 (1990).

52. **Liquid Chromatography Expert Systems: A Modular Approach - Solvophobic Interactions Part III**
J.W. Dolan, L.R. Snyder, *Am. Lab.,* **22,** 50 (1990).

51. **A Method Development System for Liquid Chromatography**
J.R. Gant, F.L. Vandemark, A.F. Poile, *Am. Lab.,* **22,** 15 (1990).

50. **Reproducibility Problems in Gradient Elution Caused by Differing Equipment**
L.R. Snyder, J.W. Dolan, *LCGC,* **8**, 524-537 (1990).

49. **Use of High-Performance Liquid Chromatography in the Pharmaceutical Industry**
F. Erni, *J.Chromatogr.***, 509,** 141-149 (1990).

48. **Integration of Computer-Aided Method Development Techniques in LC**
J.W. Dolan, L.R. Snyder. *J.Chromatogr. Sci.,* **28**, 379-384 (1990).

47. **Nitroaromatic compounds,** DryLab-Team, *DryLab 4 - Example files:*(8-nitro.dlproj) (1990).

46. **High-Performance Liquid Chromatography of Thermus Aquaticus 50S and 30S Ribosomal Proteins**
I. Molnár, R. I. Boysen, V.A. Erdmann, *Chromatographia*,**28,** 39-44 (1989).

45. **Predicting Reversed-Phase Gradient Elution Separations by Computer Simulation: A Comparison of Two Different Programs**
J. Schmidt, *J. Chromatogr.,* **485,** 421-432 (1989).

44. **Separation of Mixtures of OPA-Derivatized Amino Acids by Reversed-Phase Gradient Elution, the Accuracy of Computer Simulation for Predicting Retention and Bandwidth**
J.D. Stuart, D.D Lisi, L.R. Snyder, *J. Chromatogr.,* **485,** 657-672 (1989).

43. **Computer-Assisted Development of a High-Performance Chromatographic Method for Fractionating Selected Nitro Derivatives of Polyaromatic Hydrocarbons**
D.J. Thompson, W.D. Ellenson, *J.Chromatogr.,* **485**, 607-615 (1989).

42. **Development of a High-Performance Liquid Chromatographic Method for Fluoroxypyr Herbicide and Metabolites Using Computer Simulation with DryLab Software**
R.G. Lehman, J.R. Miller, *J. Chromatogr.,* **485,** 581-58 (1989).

41. **Practical Approach for High-Performance Liquid Chromatographic Method Development: Assaying Synthetic Intermediates of a Leukotriene Inhibitor**
J. Fulper, *J. Chromatogr.,* **485**, 597-605 (1989).

40. **Peak Tracking in High-Performance Liquid Chromatography Based on Normalized Band Areas. A Ribosomal Protein Sample as an Example**
I. Molnár, R. Boysen, P. Jekow, *J.Chromatogr.,* **485,** 569-579 (1989).

39. **Prediction of Retention Times in Ion-Exchange Chromatography**
T. Sasegawa, Y. Sakamoto, T. Hirose, T. Yoshida, Y Kobayashi, Y Sato, *J. Chromatogr.,* **485,** 533-540 (1989).

38. **Computer-Aided Optimization of High-Performance Liquid Chromatography in the Pharmaceutical Industry**
E.P. Lankmayr, W. Wegscheider, J.C. Gfeller, N.M. Djordjevic, B. Schreiber, *J. Chromatogr.,* **485**, 183-193 (1989).

37. **DryLab Computer Simulation for HPLC Method Development II. Gradient Elution**
J.W. Dolan, D.C. Lommen, L.R. Snyder, *J.Chromatogr.,* **485**, 91-112 (1989).

36. **DryLab Computer Simulation for HPLC Method Development I. Isocratic Elution**
L.R. Snyder. J.W. Dolan, D.C. Lommen, *J.Chromatogr.,* **485,** 65-89 (1989).

35. **Design of Optimized High-Performance Liquid Chromatographic Gradients for the Separation of either Small or Large Molecules II. Background and Theory**
B.F.D. Ghrist, L.R. Snyder, *J.Chromatogr.,* **459,** 25-41 (1988).

34. **Design of Optimized High-Performance Liquid Chromatographic Gradients for the Separation of either Small or Large Molecules. I. Minimizing Errors in Computer Simulations**
B.F.D. Ghrist, B.S. Cooperman, L.R. Snyder, *J.Chromatogr.,* **459,** 1-23 (1988).

33. **Computer Simulation in HPLC: Making Multistep Gradients Practical**
T.H. Jupille, J.W. Dolan, L.R. Snyder, *Am. Lab.,* **20**, 20 (1988).

32. **Quantitative Determination of Limonin in Citrus Juices by HPLC Using Computerized Solvent Optimization**
P.E. Shaw, C. W. Wilson, *J. Chromatogr. Sci.,* **26,** 478-481 (1988).

31. **Developing a Gradient Elution Method for Reversed-Phase HPLC**
J.W. Dolan, L.R. Snyder, *LCGC,* **5,** 970 (1988).

30. **Design of Optimized High-Performance Liquid Chromatographic Gradients for the Separation of either Small or Large Molecules. III. An Overall Strategy and its Application to Several Examples**
B.F.D. Ghrist and L.R. Snyder, *J.Chromatogr.,* **459,** 43-63 (1988).

29. **Computer Simulation as a Means of Developing an Optimized Reversed-Phase Gradient Separation**
J.W. Dolan, L.R. Snyder, M.A. Quarry, *Chromatographia,* **24**, 261-276 (1987).

28. **Solvent-Strength Selectivity in Reversed-Phase HPLC**
L.R. Snyder, M.A. Quarry, J.L. Glajch, *Chromatographia,* **24**, 33-44 (1987).

27. **Selectivity in Reversed-Phase Gradient Elution as a Function of Gradient Conditions**
J.W. Dolan, L.R. Snyder, *Chromatography,* **2**, 49 (1987).

26. **Predicting Bandwidth in the HPLC Separation of Large Biomolecules. Predicting Bandwidth in the HPLC Separation of Large Biomolecules. II*. A General Model for the Four Common HPLC Methods**
M.A. Stadalius, B.F.D. Ghrist, L.R. Snyder, *J. Chromatogr.,* **387**, 21-40 (1987).

25. **HPLC Method Development and Column Reproducibility**
J.W. Dolan, L.R. Snyder, M.A. Quarry, *Am. Lab.,* **19,** 43 (1987).

24. **Band Spacing in Reversed-Phase HPLC as a Function of Solvent Strength. A Simple and Fast Alternative to Solvent Optimization for Method Development**
M.A. Quarry, R.L. Grob., L.R. Snyder, J.W. Dolan, M. Rigney, *J.Chromatogr.,* **384,** 163-180 (1987).

23. **Computer Simulation in HPLC Method Development. Reducing the Error of Predicted Retention Times**
L.R. Snyder, M A Quarry, *J. Liq. Chromatogr.,* **10**, 8-9, 1789-1820 (1987).

22. **Predicting Bandwidth in the HPLC Separation of Large Biomolecules. Size-Exclusion Studies and the Role of Solute Stokes-Diameter versus Particle Pore-Diameter**
B.F.D. Ghrist, M. A. Stadalius, L.R. Snyder, *J. Chromatogr.,* **387**, 1-19 (1987).

21. **HPLC Computer Simulation. Optimizing Column Conditions**
L.R. Snyder J.W. Dolan, *Am. Lab.,* **18**, 8, 37 (1986).

20. **Fast Method Development for Reversed-Phase HPLC. The Use of Computer Simulations**
L.R. Snyder, J.W. Dolan, M.P. Rigney, *LCGC*, **4**, 921 (1986).

19. **HPLC Separation of Large Molecules. A General Model**
L.R. Snyder and M.A. Stadalius in *High Performance Liquid Chromatography. Advances and Perspectives*, Academic Press ,1986, 4, 195.

18. **Prediction of Precise Isocratic Retention Data from Two or More Gradient Elution Runs. An Analysis of Some Associated Errors**
M.A. Quarry, R.L. Grob., L.R. Snyder, *Anal. Chem.,* **58,** 907 (1986).

17. **Separation of Peptide Mixtures by Reversed-Phase Gradient Elution. Use of Flow Rate Changes for Controlling Band Spacing and Improving Resolution**
J.L. Glajch, M.A. Quarry, J.F. Vasta, L.R. Snyder, *Anal. Chem.,* **58**, 280 (1986).

16. **Selecting Column Conditions for Reversed-Phase HPLC Separation II. Column Configuration and Column Evaluation**
L.R. Snyder, P.E. Antle, *LCGC,* **3**, 98 (1985).

15. **Optimization Model for the Gradient Elution Separation of Peptide Mixtures by Reversed-Phase HPLC. Application to Method Development and the Choice of Column Configuration**
M.A. Stadalius, FI.S. Gold, L.R. Snyder, *J.Chromatogr.,* **327,** 93-113 (1985).

14. **Optimization model for the gradient elution separation of peptide mixtures by reversed-phase high-performance liquid chromatography: Verification of band width relationships for acetonitrile-water mobile phases**

M.A. Stadalius, FI.S. Gold, L.R. Snyder, *J.Chromatogr.,* **327**, 27-45 (1985).

13. **Optimization Model for the Gradient Elution Separation of Peptide Mixtures by Reversed-Phase HPLC, Verification of Retention Relationships**
M.A. Stadalius, FI.S. Gold, L.R. Snyder, *J.Chromatogr.,* **296**, 31-59 (1984).

12. **Measurement and Use of Retention Data from High-Performance Gradient Elution, Correction for 'Non-ideal' Processes Originating within the Column**
M.A. Quarry, R.L. Grob, L. R. Snyder, *J.Chromatogr.,* **285**, 19-51 (1984).

11. **Measurement and Use of Retention Data from High Performance Gradient Elution. Contributions from "Non-ideal" Gradient Equipment**
M.A. Quarry, R.L. Grob, L.R. Snyder, *J.Chromatogr.,* **285**, 1-18 (1984).

10. **High Performance Liquid Chromatographic Column Efficiency as a Function of Particle Composition and Geometry, and Capacity Factor**
R.W. Stout, J.J. De Stefano, L.R. Snyder, *J. Chromatogr.,* **282**, 263-286 (1983).

9. **Gradient Elution in Reversed-Phase HPLC Separation of Macromolecules**
L.R. Snyder, M.A. Stadalius, M.A. Quarry, *Anal. Chem.,* **55,** 1412A (1983).

8. **High-performance liquid chromatography of proteins: analytical applications**
K. Buchholz, B. Gödelmann, I. Molnár, *J. Chromatogr. A*, **238**, 193-202 (1982).

7. **Gradient Elution**
L.R. Snyder in *High Performance Liquid Chromatography. Advances and Perspectives*, Cs. Horváth, ed., Academic Press, 1980, 1 Ch. 4.

6. **Rapid Analysis of Peptide Mixtures by High Performance Liquid Chromatography with Nonpolar Stationary Phases**
I. Molnár, Cs. Horváth Peptides (Proc. 5th Am. Peptide Symp.), M. Goodman, J. Meienhofer, 1977, 48-51.

5. **Enhancement of Retention by Ion-Pair Formation in Liquid Chromatography with Nonpolar Stationary Phases - Solvophobic Interactions Part III**
Cs. Horváth, W. Melander, I. Molnár, P. Molnár, *Anal. Chem.,* **49,** 2295-2305 (1977).

4. **Rapid separation of urinary acids by high-performance liquid chromatography**
I. Molnár, Cs. Horváth, *J.Chromatogr.,* **143**, 391-400 (1977).

3. **Separation of Amino Acids and Peptides on Non-polar Stationary Phases by High-Performance Liquid Chromatography**
I. Molnár, Cs. Horváth, *J.Chromatogr.,* **142,** 623-640 (1977)**.**

2. **Liquid Chromatography of Ionogenic Substances with Nonpolar Stationary Phases - Solvophobic Interactions Part II**
Cs. Horváth, W. Melander, I. Molnár, *Anal. Chem.,* **49**, 142-154 (1977).

1. **Solvophobic Interactions in Liquid Chromatography with Nonpolar Stationary Phases - Solvophobic Interactions Part I**
Cs. Horváth, W. Melander, I. Molnár, *J.Chromatogr.,* **125,** 129-156 (1976).