

Capillary Electrophoresis and Electrokinetic Chromatography

1. REVIEWS AND BOOKS

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- 309 Leon-Gonzalez, M.E. and Pérez-Arribas, L.V.: Chemically modified polymeric sorbents for sample preconcentration. *J. Chromatogr. A*, 902 (2000) 3-16 - a review with 42 refs.
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- 311 Palmer, C.P.: Polymeric and polymer-supported pseudostationary phases in micellar electrokinetic chromatography: Performance and selectivity. *Electrophoresis (Weinheim)*, 21 (2000) 4054-4072 - a review with 104 refs.
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- See also 315, 316, 320, 322, 326, 327, 328, 329, 337, 340, 350, 356, 358, 365, 368, 369, 371, 372, 378, 379, 381, 391, 393, 404, 422, 431, 440, 444, 445, 446, 447, 475, 511, 533, 536, 549.

2. FUNDAMENTALS, THEORY AND GENERAL

2a. General

- 314 Cao, C.-X., Zhou, S.-L., He, Y.-Z., Qian, Y.-T., Yang, L., Qu, Q.-S., Gan, W.E., Dong, L., Zhao, Y.-Q. and Chen, W.-K.: Corrections to moving chemical reaction boundary equation for weak reactive electrolytes under the existence of background electrolyte KCl in large concentrations. *J. Chromatogr. A*, 907 (2001) 347-352.
- 315 Carabias-Martínez, R., Rodríguez-Gonzalo, E., Moreno-Cordero, M., Pérez-Pavón, J.L., García-Pinto, C. and Fernández Laespada, E.: Surfactant cloud point extraction and preconcentration of organic compounds prior to chromatography and capillary electrophoresis. *J. Chromatogr. A*, 902 (2000) 251-265 - a review with 81 refs.

- 316 Cordero, B.M., Pérez Pavón, J.L., García Pinto, C., Fernández Laespada, E., Carabias Martínez, R. and Rodríguez Gonzalo, E.: Analytical applications of membrane extraction in chromatography and electrophoresis. *J. Chromatogr. A*, 902 (2000) 195-204 - a review with 103 refs.
- 317 Cross, R.F.: Joule heating calculations in capillary zone electrophoresis. Reply to "Recalculation of the temperature inside capillaries using high buffer concentrations" by Zhang et al. *J. Chromatogr. A*, 907 (2001) 357-360.
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- 325 Pedersen-Bjergaard, S., Gabel-Jensen, C. and Honoré Hansen, S.: Selectivity in microemulsion electrokinetic chromatography. *J. Chromatogr. A*, 897 (2000) 375-381.
- 326 Pedersen-Bjergaard, S., Rasmussen, K.E. and Grønhaug Halvorsen, T.: Liquid-liquid extraction procedures for sample enrichment in capillary zone electrophoresis. *J. Chromatogr. A*, 902 (2000) 91-105 - a review with 69 refs.
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- 329 Sparr Eskilsson, C. and Björklund, E.: Analytical-scale microwave-assisted extraction. *J. Chromatogr. A*, 902 (2000) 227-250 - a review with 139 refs.
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See also 363.

2b. *Thermodynamics and theoretical relationships*

- 331 Metting, H.J., van Zomeren, P.V., van der Ley, C.P., Coenegracht, P.M.J. and de Jong, G.J.: Comparison of migration modelling in micellar electrokinetic chromatography by linear regression and by use of an artificial neural network. *Chromatographia*, 52 (2000) 607-613.
- 332 Nhujak, T. and Goodall, D.M.: Comparison of binding of tetraphenylborate and tetraphenylphosphonium ions to cyclodextrins studied by capillary electrophoresis. *Electrophoresis (Weinheim)*, 22 (2001) 117-122.

See also 307, 314, 348.

2c. *Relationship between structure and electrophoretic behaviour*

See 332.

2d. *Measurement of physico-chemical and related values*

- 333 Wang, D., Yang, G. and Song, X.: Determination of pKa values of anthraquinone compounds by capillary electrophoresis. *Electrophoresis (Weinheim)*, 22 (2001) 464-469.
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See also 357, 401, 459, 541.

3. GENERAL TECHNIQUES

3a. *Apparatus and accessories*

- 335 Hong, J.W., Hosokawa, K., Fujii, T., Seki, M. and Endo, I.: Microfabricated structures for bioseparation. *Prog. Biotechnol.*, 16(Bioseparation Engineering) (2000) 69-74; *C.A.*, 133 (2000) 331598a.
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See also 384, 386, 391, 392, 393, 395, 396, 398, 400, 405, 406, 446, 480, 540.

3b. *Detectors and detection procedures*

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See also 312, 313, 396, 401, 402, 410, 412, 426, 433, 455, 458, 473, 477, 558.

3c. *Stabilization media for electrophoresis*

- 344 Altria, K.D.: Capillary electrophoresis without method development - using generic operating methods. *LC-GC Eur.*, 14 (2001) 320-330.

See also 324, 352, 362, 394, 465.

3d. *Quantitative analysis*

- 345 Martynov, A., Schepkina, J., Chestkov, V., Radko, S.P., Kolosova, I. and Chrambach, A.: Towards a quantitative free flow electrophoresis and its application to particle size separations. *Prepar. Biochem. Biotechnol.*, 30 (2000) 331-341.
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4. SPECIAL TECHNIQUES

4a. *Automation*

See 336, 403.

4b. *Computerization and modelling*

- 348 Guillaume, Y.C., Peurin, E., Ravel, A. and Guinchard, C.: Migration behavior modeling of anionic species in a hydroorganic background electrolyte. *J. Liq. Chromatogr. Relat. Technol.*, 23 (2000) 2789-2806.

- 349 Haber, P., Baczek, T., Kaliszán, R., Snyder, L.R., Dolan, J.W. and Wehr, C.T.: Computer simulation for the simultaneous optimization of any two variables and any chromatographic procedure. *J. Chromatogr. Sci.*, 38 (2000) 386-392.
- See also 390, 452, 551.
- 4c. *Combination with other physicochemical techniques, (MS, IR etc.)*
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- See also 308, 419, 427, 429, 436, 441, 449, 450, 464, 494, 496, 508, 518, 522.
- 4d. *Affinity electrophoresis*
- 355 Hafner, F.T., Kantz, R.A., Iverson, B.L., Tim, R.C. and Karger, B.L.: Non competitive immunoassay of small analytes at the femtomolar level by affinity probe capillary electrophoresis: direct analysis of digoxin using a uniform-labelled scFv immunoreagent. *Anal. Chem.*, 72 (2000) 5779-5786.
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- 4e. *Capillary electrochromatography*
- 358 Colon, L.A., Burgos, G., Maloney, T.D., Cintron, J.M. and Rodriguez, R.L.: Recent progress in capillary electrochromatography. *Electrophoresis (Weinheim)*, 21 (2000) 3965-3993 - a review with 216 refs.
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- See also 380, 382, 424, 439, 462, 516, 551.
- 4f. *Capillary isotachopheresis and sample stacking*
- 369 Gebauer, P. and Bocek, P.: Recent progress in capillary isotachopheresis. *Electrophoresis (Weinheim)*, 21 (2000) 3898-3904 - a review with 117 refs.
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- See also 521.
- 4g. *Enantiomers, separation*
- 371 Chankvetadze, B. and Blaschke, G.: Enantioseparations using capillary electromigration techniques in nonaqueous buffers. *Electrophoresis (Weinheim)*, 21 (2000) 4159-4178 - a review with 74 refs.
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- See also 359, 361, 365, 409, 432, 434, 435, 487, 505, 506, 510, 512, 516, 519, 525, 526.
- 4h. Two dimensional electrophoresis**
- 383 Dunsmoor, C., Sanders, J., Ferrance, J. and Landers, J.: Microchip electrophoresis: an emerging technology for molecular diagnostics. *LC-GC Eur.*, 14 (2001) 38-44.
- See also 393, 440, 441, 442, 443, 444, 445, 449.
- 4i. Other special techniques**
- 384 Alarie, J.P., Jacobson, S.C. and Ramsey, J.M.: Electrophoretic injection bias in a microchip valving scheme. *Electrophoresis (Weinheim)*, 22 (2001) 312-317.
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- See also 306, 312, 335, 338, 339, 343, 370, 371, 380, 429, 454, 458, 465, 467, 468, 471, 479, 484, 539, 547, 550.
5. HYDROCARBONS AND HALOGEN DERIVATIVES
- 5b. *Cyclic hydrocarbons, fullerenes*
- 408 Akbay, C., Shamsi, S.A. and Warner, I.M.: Separation of monomethyl-benz[a]anthracene isomers using cyclodextrin-modified electrokinetic chromatography. *J. Chromatogr. A*, 910 (2001) 147-155.
- See also 341.
- 5c. *Halogen derivatives*
- 409 Garcia-Ruiz, C., Martin-Biosca, Y., Crego, A.L. and Marina, M.L.: Rapid enantiomeric separation of polychlorinated biphenyls by electrokinetic chromatography using mixtures of neutral and charged cyclodextrin derivatives. *J. Chromatogr. A*, 910 (2001) 157-164.
6. ALCOHOLS
- See 366.
7. PHENOLS
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- See also 360, 366, 421.
8. SUBSTANCES CONTAINING HETEROCYCLIC OXYGEN
- 8a. *Flavonoids*
- 412 Hua, L., Peng, Z., Chia, L.S., Goh, N.K. and Tan, S.N.: Separation of kaempferols in *Impatiens balsamina* flowers by capillary electrophoresis with electrochemical detection. *J. Chromatogr. A*, 909 (2001) 297-303.
- 8b. *Aflatoxins and other mycotoxins*
- 413 Maragos, C.M.: Measurement of aflatoxins using capillary electrophoresis. *Methods Mol. Biol. (Totowa)*, 157 (Mycotoxin Protocols) (2001) 51-58; *C.A.*, 134 (2001) 38012d.
- 8c. *Other compounds with heterocyclic oxygen (incl. tannins)*
- 414 Ichiyangi, T., Oikawa, K., Tateyama, C. and Konishi, T.: Acid mediated hydrolysis of blueberry anthocyanins. *Chem. Pharm. Bull.*, 49 (2001) 114-117.
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9. OXO COMPOUNDS, ETHERS, EPOXIDES AND QUINONES
- See 331, 333, 366, 421.
10. CARBOHYDRATES
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