

Electrophoresis

- Acid-base theory 19, 22
 Acrylamide derivatives 63
 Advances in gel electrophoresis 3147
 Affinity electrophoresis 84, 1095(review), 1440, 1886(review), 2469
 — — , capillary 74, 84, 85, 131, 169, 330, 370, 1469, 1775, 1874,
 2143, 2602, 2813(review), 3090
 — — , — , coupling with MS 2855
 — — , — , enantiomer separations 2602
 — — , — , gel 131, 2363
 — — , — , preparative 1182
 see also Immunoaffinity electrophoresis
 Affinoblotting *see* Blotting techniques; Electroblotting; Immunoblotting
 Agarose-formaldehyde *see* Formaldehyde-agarose gel
 — gel, electric birefrience
 — — electrophoresis, alkaline 3161
 — — , orientation 3165
 Agarose glyoxyl 68(review)
 — , highly crosslinked 1488
 Agarose-polyacrylamide gel 263
 Amido black staining 2916
 Armonnia-silver staining method *see* Silver stain procedures
 Aperiodic electrophoresis 1852
 Asymmetric field inversion electrophoresis *see* Field inversion electrophoresis and other types of field inversion
 Automation 112, 283(review), 992, 1057, 1690, 1827, 1844, 1858,
 1882, 2494, 2685, 2708, 3128, 3184
 Azure A - silver staining 218
 Benzidine staining 1413
 Blotting techniques 76, 220, 229, 255, 273, 276, 322, 326, 367, 373,
 377, 379, 386-389, 393, 395, 400, 402, 407, 421, 424, 462, 467,
 478, 485, 495, 499, 510, 515, 516, 530, 548, 553, 555, 557, 563,
 567, 572, 575, 580, 581, 584, 585, 599, 601, 603, 605, 609, 613,
 616, 618, 647, 657, 663, 668, 670, 671, 685, 688, 693, 696, 700,
 707, 711, 735, 740, 743, 744, 746, 749-755, 757-763, 765, 766,
 768, 770, 771, 774-781, 784, 785, 789, 801, 804, 805, 807, 823,
 826, 832, 833, 835, 841, 846, 853, 858, 913, 919, 994, 1060,
 1192, 1251, 1314, 1318, 1345, 1349, 1366, 1427, 1433, 1436,
 1444, 1491, 1493, 1496, 1499, 1503, 1510, 1522, 1529, 1552,
 1577, 1595-1597, 1599, 1601, 1602, 1607, 1609-1614, 1617,
 1623, 1627, 1628, 1630-1634, 1640, 1652, 1656, 1657, 1663,
 1665, 1689, 1723, 1730-1732, 1734, 1749, 1751, 1939, 1951,
 1970, 2049(review), 2084, 2099, 2101, 2111, 2125, 2180, 2183,
 2188, 2220, 2224, 2239, 2251, 2268, 2279, 2286, 2293, 2298,
 2305, 2306, 2339, 2372, 2375, 2378, 2379, 2392, 2393, 2397,
 2398, 2403, 2408, 2416, 2418, 2419, 2423, 2424, 2436, 2438,
 2441, 2458, 2476, 2478, 2484, 2516, 2523, 2524, 2527, 2532,
 2554, 2558, 2567, 2648, 2676, 2708, 2809, 2810, 2812, 2814,
 2815, 2817, 2824, 2835, 2837, 2899-2901, 2903, 2904, 2906,
 2909, 2910, 2915, 2925, 2940, 2949, 2954, 3002-3004, 3020,
 3028, 3048, 3052, 3059, 3063, 3079, 3082, 3086, 3095, 3105,
 3108, 3110, 3111, 3113, 3115, 3116, 3118, 3119, 3121, 3122,
 3141, 3152, 3153, 3194
 see also Electroblotting; Immunoblotting
- Books (and symposia proceedings) on electrophoresis 1, 2, 1024,
 1816, 2634
 Capillary array electrophoresis 2571, 2897, 3190
 — — — , chip 2574
 — — cartridge 139
 — — characterization 1144
 — — , coating 117, 151, 165(review), 172, 240, 1133, 1134, 1188,
 1875, 1888, 1900, 1902, 2022, 2047, 2056, 2109, 2110, 2668,
 2669, 2735, 2878, 2882, 3287
 — — , connectorized 1908
 — — , derivatization 2024
 — — , microconcentric 106
 — — , packed 145, 2724
 — — , review 1898
 — — , technology 114, 1871, 2686
 — — , washing 1875
 — — chromatography, micellar 91, 190-192, 195, 207, 230, 249, 277,
 278, 281, 288, 290, 291, 306, 321, 335, 445, 450, 718, 720,
 933-935, 937, 945, 950, 955, 958, 961, 962, 969, 971, 973, 975,
 977, 978, 980, 996, 1044, 1127, 1147, 1203, 1205, 1213, 1227,
 1239, 1755, 1763, 1781, 1784, 1787, 1791, 1835, 1943, 1946,
 1949, 1977, 1990, 1994, 2022-2024, 2026, 2109, 2285, 2577,
 2578, 2588, 2604, 2611, 2612, 2616, 2624, 2654, 2657, 2719,
 2745, 2788, 2826, 2838, 2847, 2848, 2850, 2852, 2991, 3098,
 3160, 3211, 3218, 3219, 3222, 3226, 3227, 3231, 3241, 3244,
 3246-3248, 3254, 3255, 3257, 3259, 3263, 3265, 3270, 3271,
 3273, 3281
 — — — , buffers 109
 — — — , — , capillary, coated 935, 1902, 2022, 2109
 — — — , — , comparison with CZE 958, 3265
 — — — , — , — , — GC 184, 3263
 — — — , — , — , — liquid chromatography 9, 720, 946, 957, 982,
 1755, 2624, 3231, 3246, 3273
 — — — , — , — , slab electrophoresis 335
 — — — , — , counterions 130
 — — — , — , coupling with MS 2748
 — — — , — , detection, diode array 3271
 — — — , — , — , fluorescence 982, 996, 1943, 2847, 2848, 2850,
 3160, 3271
 — — — , — , — , indirect 1943
 — — — , — , — , indirect 1943, 1946, 2852
 — — — , — , — , laser based 982, 996, 1943, 2847, 2848, 3160, 3271
 — — — , — , — , luminescence 1203
 see also Capillary zone electrophoresis, detection
 — — , — electroosmotic gradient 146
 — — , — , enantiomer separation 126, 169, 291, 946, 958, 969,
 1137, 1157, 1806, 1997, 2578, 2611, 2770, 2780, 2850, 2852,
 3218, 3254, 3265
 see also various modifiers
 — — , — , gradient elution 146
 — — , — , instrumentation 1847
 — — , — , ion exchange 1889
 — — , — , micelle-water partition coefficient 25
 — — , — , mobile phase 1914

Capillary chromatography, micellar, optimization 132, 190, 192, 195, 277, 278, 290, 325, 957, 971, 1387, 1755, 1781, 1927, 1977, 1994, 2016, 2022-2024, 2026, 2109, 2577, 2749, 2850, 2852, 3246, 3248, 3271
 — —, —, partition coefficients 1902
 — —, —, pH effects 288, 971, 1165, 1387, 2022, 2024, 2026, 2577, 3246, 3248
 — —, —, precolumn derivatization 1997, 2850, 2852
 — —, —, pseudo-stationary phases 1831
 — —, —, quantitation 230, 249, 290, 945, 955, 957, 971, 982, 1946, 2577, 2604, 2624, 2848, 3227, 3231, 3244, 3246, 3247, 3259, 3263, 3270, 3273
 — —, —, reviews 4, 1024, 1820, 1896, 1928, 2617, 2672, 2713, 2722, 2723, 2726, 2736
 see also Capillary zone electrophoresis, reviews
 — —, —, sample matrix effects 2752
 — —, —, solute-micelle interactions 1146
 — —, —, temperature effect 937, 1994
 — —, —, theory 1041, 2680
 — —, —, with acetone 3248
 — —, —, alkylglucoside surfactant 141
 — —, —, anionic surfactant 115, 1239
 — —, —, bile salt 277, 290, 445, 937, 957, 982, 996, 2578, 2624, 3254
 see also various bile salts
 — —, —, butyl acrylate-butyl methacrylate-methacrylic acid copolymers 134
 — —, —, cetyltrimethylammonium bromide 7, 1125, 1165, 3263
 — —, —, cholate 2624
 — —, —, cyclodextrin 946, 950, 957, 958, 969, 973, 1997, 2577, 2611, 2751, 2762, 2780, 2852, 3265, 3271
 — —, —, dendrimers 1889, 1915, 1927
 — —, —, deoxycholate 2624, 3231
 — —, —, fluorocarbon 1239
 — —, —, glucopyranoside-based 1137
 — —, —, high molecular surfactant 134, 2748
 — —, —, in situ charged micelles 1131
 — —, —, N-dodecanoyl-L-glutamate sodium
 — —, —, N-dodecoxycarbonylvaline 126
 — —, —, micelles modified with hydroxy compounds 2742
 — —, —, mixed micelles 132, 277, 1096, 1125, 2770, 2847
 — —, —, organic modifiers 116, 133, 192, 290, 291, 937, 971, 982, 1927, 1997, 2109, 2747, 2749, 2850, 3248
 — —, —, resorcarenes 2719
 — —, —, starburst (pamam) dendrimers 1889, 1927
 — —, —, surfactants, comparison 937
 — —, —, —, high molecular 1136
 — —, —, —, nonionic 3257
 — —, —, —, zwitterionic 306, 3257
 — —, —, —, taurodeoxycholate 2578
 — —, —, —, TTAB 2654
 — —, —, —, tween 288, 2016
 — —, —, —, zone sharpening 1125
 — —, —, microemulsion see Microemulsion electrokinetic chromatography
 — —, —, electrochromatography 2724
 — —, —, electrophoresis see Capillary zone electrophoresis
 — —, —, electrophoresis, affinity see Affinity electrophoresis, capillary
 — —, —, anion 1892

Capillary electrophoresis, flow-counterbalanced 2737
 — —, free solution 2194, 2598
 — —, —, enantiomer separations 2598
 — —, —, instrumentation see Capillary zone electrophoresis, instrumentation
 — —, —, nonaqueous 185
 — —, —, on chip 34, 37, 99, 1051, 2574
 — —, —, optimization 290
 — —, —, pulsed-field 838
 — —, —, rectangular 93
 — —, —, reviews see Capillary zone electrophoresis, reviews; Capillary chromatography, micellar, reviews
 — —, —, synchronized cyclic 1101
 — —, gel electrophoresis 336, 440, 713, 728, 820, 843, 860, 871, 875-877, 887, 890, 900, 901, 924, 1023(review), 1024(review), 1282, 1422, 1582, 1584, 1587, 1643(review), 1644, 1682, 1745, 1771, 1876(review), 1918, 2041, 2043(review), 2162, 2364, 2429, 2444, 2460, 2483, 2506, 2515, 2530, 2572, 2961, 3007, 3106, 3112, 3128-3131, 3145, 3173, 3182, 3183, 3195, 3198(review)
 — —, —, affinity 131, 2363
 — —, —, automated 3130
 — —, —, charged gels 2777
 — —, —, columns 92, 1102
 — —, —, comparison with CZE 3007
 — —, —, detection 524, 860, 901, 1123, 1745, 2364, 2460, 2703, 3125, 3128, 3145, 3173, 3198(review)
 see also Capillary zone electrophoresis, detection
 — —, —, diffusion 1682
 — —, —, entangled polymer 3112
 see also Capillary zone electrophoresis, mobile phase, with entangled polymer
 — —, —, glucosaminan gel 1918
 — —, —, instrumentation 1055
 — —, —, media 1422
 — —, —, —, with cyclodextrin 1771
 — —, —, migration prediction 713
 — —, —, model 1840
 — —, —, poly(N-acryloylaminooxyethanol) 871, 900
 — —, —, poly(ethyleneoxide) 3128, 3182
 — —, —, quantitation 728, 1771, 2961
 — —, —, replaceable gels 877, 1282, 1771, 1897
 — —, —, replenishable 1584
 — —, —, sample application 2734
 — —, —, with SDS 524, 2041, 2961
 — —, ion electrophoresis 143, 211, 997, 1109, 1757, 1803, 1810, 1819(review), 1991, 2629, 2668, 3297, 3301
 — —, —, comparison with ion chromatography 211
 — —, —, detection 143, 997, 1109, 1757, 3301
 — —, —, optimization 2668
 — —, —, quantitation 997, 2668
 — —, isoelectric focusing see Isoelectric focusing, capillary
 — —, isotachophoresis see Isotachophoresis, capillary
 Capillary, wall adsorption 1893
 — —, zone electrophoresis (CZE), applications 75, 90, 100, 129, 138, 140, 147, 186-190, 193, 196, 201, 203, 205-210, 212, 216, 235, 237, 240-245, 248, 250, 251, 279, 280, 287, 292, 293, 295-297, 301-303, 305, 310, 311, 313, 329, 352, 436, 437, 455, 456, 461, 464, 465, 500, 591, 630, 648, 652, 714-717, 719, 722, 726, 727, 730, 788, 790, 799, 851, 863, 870, 894, 902, 930-932, 935, 936, 939, 940, 943, 944, 947, 948, 950-954, 956, 958, 959, 963, 966,

- 967, 970, 975, 981, 991, 993, 995, 998, 1009, 1010, 1013-1016, 1018-1022, 1043, 1143, 1164, 1166, 1169-1173, 1183-1189, 1204, 1206-1210, 1212-1214, 1217, 1226, 1230, 1231, 1234, 1235, 1253, 1286, 1287, 1380, 1381, 1389, 1390, 1414, 1482, 1517, 1524, 1542, 1545, 1589, 1590, 1644, 1649, 1655, 1662, 1709, 1753, 1756, 1758-1762, 1769, 1774, 1780, 1782, 1783, 1792, 1798, 1800, 1803-1807, 1891, 1907, 1919, 1926, 1930, 1933, 1950, 1954, 1955, 1957, 1958, 1960-1962, 1976, 1978, 1993, 1996, 1998, 2001, 2003, 2005, 2006, 2008, 2012, 2015, 2017-2019, 2023-2025, 2032, 2037-2039, 2047, 2053, 2056, 2057, 2063, 2068, 2069, 2074, 2106, 2110, 2126, 2134, 2141, 2145, 2167, 2181, 2190, 2195, 2196, 2201, 2258, 2297, 2307, 2309, 2313, 2335, 2348, 2369, 2407, 2430, 2434, 2444, 2454, 2459, 2460, 2483, 2490, 2506, 207, 2511, 2552, 2564, 2569, 2572, 2579, 2581-2583, 2587, 2590, 2591, 2593-2596, 2599, 2601, 2607-2610, 2613, 2614, 2625, 2626, 2631, 2632, 2653-2655, 2658-2660, 2662-2667, 2670, 2725, 2727, 2745, 2783, 2785-2787, 2789, 2791, 2792, 2795, 2796, 2798-2803, 2825, 2828, 2829, 2840, 2842-2844, 2849, 2851, 2858, 2859, 2861, 2863, 2864, 2867, 2868, 2878-2880, 2882, 2896, 2929, 2937, 2947, 2952, 2962, 2966, 2977, 2996-2998, 3007, 3010, 3011, 3027, 3039, 3040, 3065, 3070, 3081, 3093, 3099, 3100, 3102, 3103, 3125, 3174, 3212, 3213, 3215-3217, 3220, 3221, 3223, 3228, 3230, 3232, 3233, 3235, 3236, 3238, 3242, 3243, 3245, 3249-3251, 3253, 3256, 3258, 3261, 3262, 3264-3269, 3274, 3275, 3278, 3279, 3282, 3284, 3286-3292, 3295, 3296, 3298-3300, 3302-3208
see also Free flow electrophoresis
- Capillary zone electrophoresis (CZE), affinity *see* Affinity electrophoresis, capillary
- — —, anion 1892
 - — —, automation 1827
 - — —, band broadening 1144
 - — —, buffers 1901(review), 2759
 - — —, concentration 2009, 2784
 - — —, for high field strengths 1899
 - — —, optimization 121, 205, 237, 285, 331, 954, 983, 985, 2783, 2798, 3011, 3099
 - — —, calibration 2721, 2760
 - — —, capillaries 64, 119, 144, 972, 1871, 1908, 2686, 2753, 2755
 - — —, —, coated 117, 151, 165(review), 172, 240, 292, 714, 722, 790, 935, 1133, 1134, 1140, 1168, 1188, 1645, 1875, 1888, 1900, 2047, 2056, 2110, 2669, 2735, 2878, 2882, 3287
 - — —, —, geometries 1144
 - — —, —, hydrophilic 1259
 - — —, —, packed 145
 - — —, —, surface modified 117, 1810, 2655, 2861
see also Capillary
 - — —, chips 33, 37, 99, 1051, 1128, 2000, 2729
 - — —, column coupling 1932
 - — —, —, microconcentric 106
 - — —, combination with HPLC 2021
 - — —, comparison with capillary chromatography, micellar 958, 3265
 - — —, —, — gel electrophoresis 3007
 - — —, —, — isoelectric focusing 1409
 - — —, comparison with LC 162, 193, 1153, 1186, 1187, 2581, 2606, 2625, 2796, 2797(review), 2863, 2998, 3007, 3220, 3261, 3262, 3264, 3266, 3269, 3279, 3300, 3303
- Capillary zone electrophoresis (CZE), comparison with polyacrylamide gel electrophoresis 3007
- — —, —, — spectrophotometric methods 2863
 - — —, —, — TLC 2625
 - — —, computerization 47, 992, 1135
 - — —, correlation 2758
 - — —, coupling with AES (atomic emission spectrometry) 1093
 - — —, —, — capillary isotachophoresis 122, 125, 938, 968, 1139, 1238, 1811, 2663
 - — —, —, — immunoassay 1326
 - — —, —, — immunoaffinity capillary chromatography 1890
 - — —, —, — LC 1094, 1116, 1162
 - — —, —, —, — microdialysis 2775
 - — MS 80, 81, 318, 331, 351, 931, 938, 968, 1058, 1090(review), 1091-1093, 1132(review), 1138, 1142, 1176, 1219, 1235, 1246, 1247, 1778, 1885, 1929, 1995, 2002, 2141, 2369, 2490, 2599, 2610, 2671(review), 2714, 2716, 2755, 2759, 2785, 2786, 2841, 2895, 3236, 3242
 - — —, —, — NMR 83, 2713(review)
 - — —, derivatization 3(review), 283(review)
see also Capillary zone electrophoresis, postcolumn derivatization and precolumn derivatization
 - — —, —, on column 104, 1108
 - — —, detection 41, 52
 - — —, —, amperometric 186, 1998, 2702
 - — —, —, biosensors 1867
see also detection, electrochemical
 - — —, —, chemiluminescence 149, 299, 1065, 1258, 2019, 2697
 - — —, —, cell 48, 111, 1867
 - — —, —, conductivity 47, 3289, 3309(review)
 - — —, —, comparison 1859
 - — —, —, electrochemical 49, 103, 296, 300, 1059, 1064, 1068, 1072, 1172, 1863, 1976, 2667, 2795, 2800, 2849
 - — —, —, — scanning 1064
 - — —, —, fluorescence 54(review), 55, 205, 216, 279, 285, 289, 442, 730, 851, 894, 987, 988, 991, 1062, 1063, 1073, 1074, 1089, 1108, 1120, 1207, 1208, 1589, 1859-1861, 1978, 1993, 2008, 2017, 2038, 2460, 2507, 2581, 2693, 2696(review), 2698(review), 2791, 2792, 2840, 2843, 2864, 2867, 3070, 3102, 3125, 3128, 3145, 3180, 3198(review), 3256, 3259
 - — —, —, —, indirect 1859, 1860
 - — —, —, —, indirect 143, 201, 209, 940, 942, 943, 998, 1009, 1013, 1015, 1018, 1019, 1022, 1067, 1070, 1071, 1141, 1185, 1186, 1802, 1804, 1806, 1807, 1810, 1812-1814, 1859, 1860, 1887, 2660, 2663, 2667, 2829, 3221, 3278, 3288, 3292, 3304, 3307
 - — —, —, —, laser based 53, 279, 285, 289, 442, 730, 987, 988, 991, 1062, 1063, 1074, 1108, 1120, 1207, 1585, 1589, 1649, 1859, 1861, 1978, 1993, 2008, 2020, 2038, 2460, 2507, 2581, 2696(review), 2698(review), 2791, 2792, 2840, 2843, 2867, 3070, 3102, 3125, 3128, 3145, 3180, 3198(review), 3295
 - — —, —, —, luminiscence 2658
 - — —, —, —, new 43, 1072, 2701
 - — —, —, —, photodiode-array 111, 120, 307, 950, 964, 983, 2828, 2864, 3173, 3250
 - — —, —, —, refractometric 1171
 - — —, —, —, reviews 54, 1821, 2696, 2698, 3309
 - — —, —, —, thermo-optical 1070, 1585, 1866
see also Detection and detectors
 - — —, —, dissociation constants 29

Capillary zone electrophoresis (CZE), dynamic sieving 3180
 — — —, electrolysis in 152
 — — —, electroosmosis 88, 96
 — — —, — control 148
 — — —, electroosmotic flow 94, 123, 145, 248, 967, 1031(review), 1100, 1104, 1114, 1802
 — — —, — control 1099, 1106, 1780, 1923, 2735
 — — —, — pH independent 1134
 — — —, — reversed 1133, 1184, 1948
 — — —, electrophoretic mobility 341, 2025, 3232
 — — —, — markers 1836
 — — —, enantiomer separations 121, 153-157, 158(review), 159-164, 165(review), 166-168, 170, 171(review), 172-174, 240, 250, 280, 285, 292, 297, 952, 954, 966, 974, 976, 984, 1111, 1140, 1152-1156, 1183, 1212, 1760, 1770, 1772, 1779, 1846, 1894(review), 1904, 1913, 1917(review), 1931, 1935(review), 1999(review), 2585, 2603, 2605, 2704, 2718, 2730(review), 2733, 2766-2771, 2782, 2798, 2841, 2842, 2844, 2851, 3213, 3216, 3217, 3250, 3251, 3261, 3266
 — — —, fast 1899
 — — —, flow control 118
 — — —, fraction collection 112, 1229, 2886
 — — —, frontal analysis 1105
 — — —, high speed 127
 — — —, Hummel-Dreyer 1105
 — — —, imaging 2746
 — — —, instrumentation 32-34, 97, 108, 110, 118, 124, 135, 137(review), 142, 799, 1048-1050, 1058, 1059, 1106, 1846, 1850, 1854, 1907, 1908, 1912, 1925(review), 2688, 2740, 2754(review), 2759, 2868
 — — —, interactions in 1920
 — — —, ion analysis 89, 143, 1842, 1924
 — — —, ionization constants 27
 — — —, isoelectric point 352
 — — —, microstructure, planar 1910, 1911(review)
 — — —, migration behavior 1287
 — — —, miniaturization 715, 1910, 1911(review)
 see also Capillary zone electrophoresis, chips
 — — —, mobile phase see Capillary zone electrophoresis, buffers
 — — —, — additives effect 94, 237, 243, 1207
 see also various types of additives
 — — —, mobile phase, chiral see Capillary zone electrophoresis, enantiomer separations
 — — —, — nonaqueous 185, 1782, 1929, 2594
 — — —, — pH effect 94, 190, 201, 241, 287, 331, 954, 960, 966, 983, 985, 1104, 1129, 1141, 1185, 1226, 1760, 1761, 1807, 1812, 1875, 1947, 2009, 2024, 2037, 2047, 2313, 2608, 2660, 2771, 2783, 2784, 2798, 2882, 2952, 3011, 3065, 3099, 3212, 3217, 3296
 — — —, — variation 152
 — — —, — with agarose solution 2454
 — — —, — albumin 174
 — — —, — amines and acetonitrile 312, 963
 — — —, — antibiotic, macrocyclic 2718
 — — —, — cellulose (and derivatives) 790, 863, 1707
 — — —, — cetyltrimethylammonium bromide 1813
 — — —, — crown ether 280, 1212, 1807, 2733, 3290
 — — —, — cyclodextrin (and modified cyclodextrins) 154, 155, 160, 161, 164, 250, 285, 297, 930, 950, 952, 954, 958, 960, 966, 974, 976, 983, 1140, 1153, 1156, 1183, 1770, 1772, 1779,

1913, 1931, 2585, 2768, 2771, 2782, 2829, 2844, 3213, 3217, 3250, 3251, 3261, 3265, 3266
 Capillary zone electrophoresis (CZE), mobile phase, with cyclodextrin-dextran polymer 292
 — — —, — dextran 1113, 2068, 2766
 — — —, — dextrin 163
 — — —, — gel 105
 — — —, — linear 1715, 2743, 3135
 see also Capillary gel electrophoresis
 — — —, — gelatin/cyclodextrin 2704
 — — —, — entangled polymer 1278, 2043(review), 2743, 3112, 3129
 see also Capillary gel electrophoresis
 — — —, — ethylene glycol 988
 — — —, — fluorosurfactants 1104
 — — —, — heparin 168, 2766, 3266
 — — —, — hexadecyltrimethylammonium hydroxid 3278
 — — —, — hydroxyethyl cellulose 1645, 3177, 3180
 — — —, — hydroxymethyl cellulose 1015, 2178
 — — —, — β-indoleacetic acid-phosphate 2803
 — — —, — ion-pairing reagents 312, 1758
 — — —, — maltodextrin 984
 — — —, — maltooligosaccharides 167
 — — —, — metal-ammonia complexes 967
 — — —, — N-methylformamide 2739
 — — —, — oligosaccharides, non-cyclic 1904
 — — —, — organic modifiers 1129, 1207, 1778, 1905(review), 2660, 2667, 2762, 2798, 3099, 3217
 — — —, — polyacrylamide 1107
 — — —, — non-crosslinked 1587, 1713, 1769
 — — —, — polydimethylalkylammonium chloride 2879
 — — —, — polyethylene glycol 102, 999
 — — —, — polymer content 717, 963, 1168, 1916, 1924, 2660, 2731, 2743, 2763, 3183, 3284
 — — —, — polysaccharides 1145
 — — —, — poly(vinylalcohol) 1278
 — — —, — polyvinylpyrrolidone, linear 166
 — — —, — presence of surfactants 1104, 1812
 — — —, — propanol 3217
 — — —, — TAPS/AMPD 2966
 — — —, — tetrabutylammonium 930
 — — —, — tetraheptylammnonium salts 1129
 — — —, — tetrahydrofuran 963
 — — —, — trimethylammonium propane sulfonate 2145
 — — —, — N,N,N',N'-tetramethyl-1,3-butanediamine 2037
 — — —, — TTAB 1809, 1813
 — — —, — urea 958
 — — —, — zwitterionic surfactant 1104
 — — —, — zwitterions 1235, 2006
 — — —, modeling 1085, 2682
 — — —, nomenclature 16
 — — —, optimization 121, 161, 190, 237, 285, 287, 302, 331, 930, 952, 954, 960, 966, 967, 976, 983, 985, 1135, 1155, 1226, 1228, 1230, 1761, 1780, 1807, 1809, 1875, 1906, 1947, 2023, 2037, 2110, 2196, 2313, 2348, 2594, 2606, 2660, 2717, 2728, 2783, 2784, 2798, 2882, 3011, 3039, 3217, 3245, 3296, 3302
 — — —, organic solvent modifiers 963, 976, 1948
 — — —, peak dispersion 2682
 — — —, shape 1037, 1144

- Capillary zone electrophoresis (CZE), pK determination 30
 — — —, postcolumn derivatization 34, 1208
 — — —, reaction detection 42
 — — —, precolumn derivatization 157, 196, 207, 283(review), 289, 295, 1051, 1120, 1207, 1210, 1760, 1955, 2018, 2038, 2693, 2791, 2840, 2842, 2851, 2864
 — — —, preconcentration, on-line 1138, 2181
 — — —, preparative 1229, 2886
 — — —, quantitation 49, 122, 201, 209, 279, 295, 727, 790, 942, 963, 974, 983, 986, 999, 1018, 1021, 1022, 1172, 1186, 1231, 1286, 1380, 1590, 1804, 1807, 1814, 1962, 2038, 2196, 2335, 2407, 2581, 2582, 2606, 2609, 2663, 2783, 2849, 2859, 2896, 3010, 3102, 3103, 3213, 3221, 3245, 3253, 3256, 3267, 3269, 3286, 3288, 3289, 3296, 3298, 3300
 — — —, rectangular 93
 — — —, reproducibility 986, 1098, 2609, 2653
 — — —, reverse direction 1892
 — — —, reversed polarity 206
 — — —, reviews and books 3-5, 54, 86, 87, 98, 113, 136, 137, 158, 165, 171, 202, 283, 989, 1024, 1026-1028, 1031, 1097, 1110, 1115, 1119, 1121, 1124, 1126, 1130, 1132, 1167, 1232, 1270, 1281, 1643, 1659, 1680, 1773, 1776, 1777, 1788, 1818, 1821, 1823, 1894-1896, 1898, 1901, 1903, 1905, 1909, 1911, 1917(review), 1921, 1922, 1925, 1935, 1940, 1956, 1999, 2043, 2597, 2600, 2617, 2620, 2621, 2671, 2696, 2698, 2713, 2720, 2722, 2723, 2726, 2730, 2732, 2736, 2741, 2754, 2790, 2793, 2794, 2797, 2813, 2857, 2887, 3198, 3237, 3239, 3241, 3272, 3280, 3309
 — — —, rinse of capillary 1118
 — — —, sample enrichment 1238, 1890, 2181, 2666, 2716, 2750, 2756, 2888, 2895
 — — —, — injection 101, 122, 125, 150, 1049, 1050, 1103, 1228, 1912, 2740
 — — —, — matrix effects 2738, 2744
 — — —, — overloading 2069
 — — —, — pretreatment 2750, 2888
 — — —, — stacking 96, 1164, 1542, 2000, 2490, 2756
 — — —, — simulation 302, 1887, 1893
 — — —, — size dependent separation 1113, 2459
 — — —, — temperature control 1124(review)
 — — —, — effects 124, 201, 311, 954, 1209
 — — —, — inside capillaries
 — — —, — theory 127, 173, 1037, 1117, 1759, 1818(review), 1892, 2009, 3203
 — — —, — two dimensional 2801
 — — —, — wall adsorption 1893, 2682
 — — —, — washing 1875, 2348
 — — —, — zone broadening 2015
 Cellulose electrophoresis 636, 642, 1872(review), 2408, 2831, 2958
 — membrane electrophoresis 2257
 Centrifuge blotting
 CHEF electrophoresis 3159
 Chip electrophoresis 34, 36, 37, 99, 1051, 1128, 2000, 2574, 2687, 2729
 Computerization 28, 47, 78, 177, 813, 891, 906, 992, 1087, 1135, 1220, 1336, 1735, 1881-1883, 1893, 2035, 2046, 2383, 2473, 2482, 2489, 2712, 2884, 2890, 2894(review), 2899, 2935, 2964, 3014, 3184
 see also Database; Modeling
 Continuous electrophoresis 36, 468, 1122, 1834, 2557
 Continuous sampling 1160
 Cost analysis 11
 Crossed immunolectrophoresis see Immunochemical techniques in electrophoresis; Immunoaffinity electrophoresis
 Data processing 1088
 Database 349, 358, 413, 416, 470, 471, 473, 478, 1698, 2089, 2173, 2890, 2894(review), 2935, 2980, 3001
 see also Computerization
 Decomposition, wave packet 1081
 Densitometry see Detection and detectors, densitometric
 Derivatization, on column 104, 1108
 — , reviews 3, 283
 see also Precolumn derivatization
 Destaining 2066
 Detection and detectors, amperometric 186, 1998, 2702
 see also Detection and detectors, electrochemical
 — — —, autoradiographic 175, 227, 261, 317, 324, 327, 357, 367, 372, 380, 382, 388, 391, 396-398, 404, 420, 427, 439, 443, 448, 451, 459, 476, 477, 486, 488, 508, 515, 521, 532, 537, 541, 553, 557, 562, 565, 572, 632, 636, 642, 643, 688, 691, 693, 723, 737, 741, 742, 750, 772, 779, 784, 786, 787, 861, 867, 872, 887, 922, 925, 927, 1177, 1243, 1288, 1292, 1293, 1302, 1305, 1310, 1315, 1333-1335, 1396, 1406, 1411, 1431, 1444, 1448, 1466, 1468, 1546, 1572, 1577, 1586, 1603, 1604, 1614, 1616, 1632, 1635, 1642, 1657, 1701, 1724, 1726, 1727, 1731, 1734, 1881, 1987, 2059, 2060, 2072, 2078, 2080, 2085, 2087, 2107, 2125, 2129, 2157(review), 2202, 2211, 2236, 2239, 2245, 2263, 2306, 2349, 2380, 2397, 2408, 2411, 2418, 2433, 2439, 2485, 2492, 2523, 2524, 2554, 2563, 2904, 2916, 2918, 2955, 2965, 2987, 3017, 3047, 3062, 3088, 3101, 3107, 3110, 3186, 3192
 — — —, biosensors 1867
 — — —, chemically suppressed 1161
 — — —, chemiluminescence 149, 229, 299, 647, 1065, 1123, 1258, 1865, 2019, 2183, 2418, 2532, 2697
 — — —, comparison 1859
 — — —, conductivity 47, 941, 1811, 3289, 3301, 3309
 — — —, confocal 3175
 — — —, densitometric 258, 320, 344, 363, 473, 485, 508, 542, 623, 638, 688, 709, 710, 742, 786, 1158, 1193, 1266, 1315, 1334, 1335, 1358, 1367, 1394, 1411, 1444, 1496, 1535, 1599, 1614, 1635, 1688, 1708, 1732, 1869(review), 1963, 1989, 2081, 2083, 2099, 2180, 2202, 2245, 2365, 2367(review), 2374, 2397, 2398, 2416, 2485, 2710, 2807, 2814, 2909, 2956, 2964, 2976, 3052, 3110
 — — —, electrochemical 49, 50, 103, 296, 300, 1064, 1068, 1072, 1172, 1863, 1976, 2667, 2795, 2800, 2849
 see also Detection and detectors, amperometric
 — — —, fluorescence 46, 55, 205, 216, 279, 285, 289, 442, 730, 851, 860, 894, 901, 982, 987, 988, 991, 996, 1073, 1089, 1108, 1120, 1207, 1208, 1394, 1589, 1745, 1844, 1859-1861, 1943, 1978, 1993, 2008, 2017, 2031, 2038, 2143, 2364, 2460, 2507, 2581, 2693, 2694, 2696(review), 2698(review), 2791, 2792, 2840, 2843, 2847, 2848, 2850, 2864, 2867, 3070, 3102, 3125, 3128, 3145, 3160, 3180, 3198(review), 3256, 3271, 3295
 — — —, — indirect 1859, 1860
 — — —, — fluorography 213, 365, 374, 375, 379, 427, 438, 471, 475, 485, 511, 523, 542, 599, 1062, 1063, 1074, 1294, 1424, 1561, 2076, 2161, 2242, 2278, 2914, 3109
 — — —, — indirect 143, 201, 209, 940, 942, 943, 997, 998, 1009, 1013, 1015, 1018, 1019, 1022, 1067, 1070, 1071, 1141, 1757

- 1802, 1804, 1806, 1807, 1810, 1812-1814, 1859, 1860, 1887, 1943, 1946, 2660, 2663, 2667, 2829, 2852, 3278, 3288, 3292, 3304, 3307
- Detection and detectors, laser based 53, 279, 285, 289, 442, 730, 860, 901, 982, 987, 988, 991, 996, 1062, 1063, 1074, 1108, 1120, 1207, 1358, 1585, 1589, 1649, 1745, 1859, 1861, 1943, 1978, 1993, 2008, 2020, 2038, 2143, 2364, 2460, 2507, 2571, 2581, 2696(review), 2698(review), 2699, 2781, 2791, 2792, 2840, 2843, 2847, 2848, 2867, 3070, 3102, 3125, 3128, 3145, 3160, 3180, 3198(review), 3271, 3295
- — —, luminescence 1203, 2658
- — —, photodiode array 111, 120, 307, 950, 964, 983, 2828, 2864, 3173, 3250, 3271
- — —, reaction based 1039
- — —, refractometric 1066, 1171
- — —, review 54, 1821, 1869, 2157, 2367, 2696, 2698, 3198, 3309
- — —, scanning 258, 320, 363, 414, 473, 485, 508, 542, 623, 638, 688, 709, 710, 742, 786, 891, 1193, 1266, 1315, 1334, 1335, 1367, 1394, 1411, 1444, 1496, 1535, 1599, 1614, 1635, 1688, 1708, 1732, 1869(review), 1963, 1989, 2081, 2083, 2099, 2180, 2202, 2245, 2365, 2374, 2397, 2398, 2416, 2485, 2710, 2807, 2814, 2899, 2956, 2976, 3052, 3105, 3110
- — —, sensitivity 51
- — —, thermo-optical 1070, 1585, 1866
- — —, zymography 537, 648, 672, 674, 1558, 1559, 2326, 2367(review), 3022
- see also Capillary chromatography, micellar, detection; Capillary zone electrophoresis, detection; Isotachophoresis, detection
- Detector(s), new types 43, 1072
- Diffusion coefficient(s) 1040
- Disc gel electrophoresis 265, 1032(review)
- Discontinuous electrophoresis 323
- Dissociation constants 29
- DNA-fingerprinting see structural studies in individual entries in the List of Types of Compounds Chromatographed
- Documentation of gels 828
- Drying of gels 1078, 1080
- Dukhin-Deryaguin equation 2681
- Electroblotting 347, 521, 535, 561, 671, 783, 1375, 1465, 1572, 2854, 2892, 2943, 3028
- see also Blotting techniques; Immunoblotting
- Electrochromatography 2715, 2757, 2875
- , capillary 2724, 2777, 2781
- Electrofocusing 1941
- Electrofractionation 1275
- Electrokinetic chromatography see Capillary chromatography, micellar
- — —, affinity 959
- Electroosmosis 37, 88, 96
- control 148
- Electroosmotic flow 94, 123, 145, 248, 967, 1031(review), 1100, 1104, 1114, 1802
- — —, control 1099, 1106, 1780, 1923, 2735
- — —, reversed 1133, 1184, 1948
- gradient 146
- zone displacement 949
- Electrophoresis, combination with fluorescence microscopy 3148
- — — PC 314, 316, 569, 721, 1211, 1221, 1223, 1236, 2011, 2240, 2488, 2853, 2860
- Electrophoresis, comparison with GC 184, 3263
- — — immunochemical measurements 2117
- — — immunofixation 2259
- — — LC 9, 11, 162, 193, 350, 720, 957, 982, 1153, 1186, 1187, 1588, 1755, 2581, 2606, 2624, 2625, 2863, 2998, 3007, 3220, 3231, 3246, 3261, 3262, 3264, 3266, 3269, 3273, 3279, 3300, 3303
- — — spectrophotometric methods 2863
- — — TLC 11, 2625
- — — ultracentrifugation 1195
- — — coupling with AES (atomic emission spectrometry) 1093
- — — agar diffusion method 1442
- — — immunoaffinity capillary chromatography 1890
- — — immunoassay 1326
- — — LC 1094, 1116, 1162, 2029
- — — microdialysis 2775
- — — MS 80-82, 318, 331, 349, 351, 352, 931, 938, 968, 1061(review), 1090(review), 1091-1093, 1132(review), 1138, 1142, 1176, 1215, 1219, 1235, 1246, 1247, 1885, 1929, 1995, 2002, 2141, 2369, 2490, 2599, 2610, 2671(review), 2714-2716, 2748, 2755, 2759, 2785, 2786, 2841, 2855, 2876, 2893, 2895, 3236, 3242
- see also Capillary zone electrophoresis; Isoelectric focusing
- — — NMR 79, 83, 2713(review)
- Electrophoretic mobility see Mobility, electrophoretic
- — shift assay 556, 731, 732, 822, 845, 897, 926, 928, 929, 1412, 1445, 1478, 1738, 2707, 3034, 3062, 3209
- plates, making 1873
- with grooves 3
- transfer, semi dry see Electroblotting
- transport mechanisms 26
- Electrotransfer 2883
- Elution from gels 343, 1285, 2065(review)
- Enantiomers, separation 121, 126, 153-157, 158(review), 159-164, 165(review), 166-170, 171(review), 172-174, 240, 250, 280, 285, 291, 292, 297, 946, 952, 954, 958-960, 969, 974, 976, 984, 1111, 1137, 1140, 1152-1157, 1212, 1760, 1770-1772, 1779, 1806, 1846, 1904, 1913, 1917(review), 1931, 1935(review), 1997, 1999(review), 2578, 2585, 2598, 2602, 2603, 2605, 2611, 2704, 2718, 2730(review), 2733, 2766-2771, 2780, 2782, 2798, 2841, 2842, 2844, 2850-2852, 3213, 3216-3218, 3250, 3251, 3254, 3261, 3265, 3266
- Enzyme-linked immunofiltration-assay (ELIFA) 2428
- Ethidium-bromide as detection reagent 561, 747, 759, 797, 801, 815, 825, 826, 830, 846, 880, 885, 905, 907, 913, 1295, 1411, 1600, 1610, 1630, 1634, 1656, 1660, 1686, 1689, 1695, 1728, 1732, 1747, 2265, 2279, 2378, 2386, 2394, 2399, 2408, 2457, 2478, 2563, 2567, 3115, 3118, 3123, 3136, 3183, 3200
- Field-alternation gel electrophoresis 2468
- Field-inversion electrophoresis (selected references only) 2501(review), 2638
- see also various types of field-inversion electrophoresis
- Filipin staining 271
- Fingerprinting see Peptide mapping and structural studies in individual entries in the List of Types of Compounds Chromatographed
- Flow, helical 2678
- Fluorescence labelling 991
- Fluorescein staining 1750
- Fluorescent pH-markers 15

- Fluorophore assisted carbohydrate electrophoresis (FACE) 2924
- Footprinting *see* Nucleotide mapping and structural studies in individual entries in the List of Types of Compounds Chromatographed
- Formaldehyde – agarose gel 255, 273, 663, 737, 745, 746, 780, 1192, 2386, 2397, 2436
- Fraction collection 112, 1229
- Free flow electrophoresis 36, 182, 183, 1008, 1163, 1794
- — —, on chip 36
 - — —, theory 1833
 - see also* Capillary zone electrophoresis
 - — —, isoelectric focusing 706
 - — —, fluid electrophoresis 1841(review)
 - — —, solution electrophoresis 2678, 2880, 2996, 2998
 - see also* Capillary zone electrophoresis
- Future of electrophoresis 1826
- Gel(s), macroporous, review 1876
- , rehydration of dried 1878
- Gold (colloidal) staining 2199
- Graded-field gel electrophoresis 2513
- Gradient(s), gel(s) 257, 258, 260, 263, 267, 270, 272-274, 406, 414, 424, 430, 432, 449, 483, 612, 616, 682, 812, 864, 1178, 1196, 1251, 1269, 1327, 1379, 1383, 1508, 1565, 1673, 1675, 1683, 1989, 2059, 2076, 2081, 2105, 2125, 2137, 2154, 2374, 2957, 2962, 2968, 3062, 3073
- , —, denaturing 334, 803, 849, 1052, 1077, 1706, 1714(review), 1743, 2198, 2438, 2491, 2519(review), 2520, 2537, 2547, 2548
 - , —, transverse pore 57, 59, 923
 - , pH, immobilized 56, 65, 180, 332, 429, 475, 522, 1159, 1254, 1267, 1354, 1409, 1556, 1934(review), 2073, 2832, 2872, 2992, 2943
 - , —, moving 23
 - , —, temperature *see* Temperature gradient gel electrophoresis
- Handling of gels 1078
- Hydrodynamic floe 1841(review)
- HydroLink 18, 793
- Image analysis 78, 414, 533, 1029(review), 1060, 1864(review), 1881, 1883, 2710, 2711, 2712, 2909, 2932, 2987, 2989, 3000, 3003
- Immunoaffinity electrophoresis 1966
- —, capillary 1469
- Immunoblotting 219, 252, 256, 262, 264, 275, 319, 347, 361, 363, 371, 376, 383, 390, 399, 401, 403, 407, 421, 428, 451, 473, 476, 505, 560, 576, 578, 579, 582, 585, 587, 603, 604, 610, 624, 629, 633, 650, 687, 705, 858, 1222, 1225, 1294, 1295, 1320, 1350, 1355, 1357-1359, 1378, 1396, 1400, 1437, 1441, 1443, 1462, 1468, 1497, 1514, 1538, 1559, 1565, 1959, 1974, 1983, 1986, 2107, 2193, 2202, 2244, 2259, 2295, 2806, 2833, 2911, 2927, 2943, 2956, 2960, 2964, 2965, 2978, 2979, 3006, 3022, 3028, 3060, 3062, 3073, 3084, 3121, 3122, 3208
- see also* Blotting techniques; Electroblotting; Electroimmunoblotting
 - , compared with immunofixation 2259
- Immunochemical techniques in electrophoresis 254, 453(review), 495, 567, 575, 618, 627, 659, 671, 994, 1197, 1370(review), 1373, 2020, 2872, 2901, 2920, 2984
- Immunoelectrophoresis, affinity 1969(review)
- assay, zone 586
 - , crossed 458, 672, 2222
 - see also* Rocket immunolectrophoresis
- Immunofixation 1198, 1376, 1384
- Instrumentation for electrophoresis 13, 31-40, 62, 97, 108, 110, 118, 124, 135, 137(review), 142, 337, 338, 483, 799, 840, 1048-1050, 1053-1055, 1057-1059, 1079, 1106, 1668, 1824, 1825, 1845-1858, 1907, 1908, 1912, 1925(review), 2685-2692, 2694, 2708, 2740, 2754(review), 2759, 2779, 2868, 3069
- see also* appropriate entries under Capillary zone electrophoresis; Detectors, new types
- Ion-exchange electrokinetic capillary chromatography 1889
- Ionization constants 27
- Isodalt technique, *see* Two dimensional electrophoresis
- Isoelectric focusing, applications 65, 180, 226, 231, 238, 252, 259, 264, 332, 342, 394, 431, 466, 475, 494, 588, 598, 611, 617, 620, 625, 634, 648, 665, 677, 702, 706, 1198, 1200, 1233, 1237, 1262, 1267, 1354, 1358, 1360, 1418, 1471, 1521, 1535, 1556, 1872(review), 1934(review), 1974, 2073, 2114(review), 2148, 2186, 2187, 2290, 2311, 2322, 2348, 2676, 2812, 2818, 2885(review), 2968, 2971, 2992, 2994, 3006, 3069, 3073, 3074, 3089, 3094
- see also* Gradient(s), pH
 - —, buffer 56
 - —, capillary 23, 24, 501, 949, 1121(review), 1416, 2048
 - —, —, detection 2897
 - —, —, electroosmotic zone displacement 949, 1087
 - —, —, instrumentation 2779
 - —, —, modeling 1087
 - —, —, comparison with capillary electrophoresis 1409
 - —, —, disturbances 17
 - —, —, free flow 706, 1264, 2877
 - —, —, instrumentation 2069
 - —, —, membrane 75
 - —, —, modeling 2710
 - —, —, preparative 75, 1385
 - —, —, ultrathin layer 661
- Isotachophoresis, application(s) 1012, 1150, 1801, 2839, 2993, 3293
- , bidirectional 1034
 - , capillary 24, 269, 441, 464, 649, 941, 979, 1790, 1992, 2628, 3252, 3260, 3294
 - , —, coupling with CZE 122, 125, 938, 968, 1139, 1811
 - , —, —, detection 941
 - , —, —, comparison with photometric determinations 2839
 - , —, electrolyte systems 1034
 - , —, —, preparative 1149
 - , —, —, recycling 441
 - , —, —, review 4, 1011, 1151, 1872
 - , —, —, theory 2764
 - , —, —, transient 2716
 - , —, —, with cyclodextrin 1148
- Labelling, fluorescence *see* Fluorescence labelling
- Lectin-affinoblotting 2812
- Liquid scintillation counting *see* Detection, radioactivity
- Magnetic sorter, immuno 2778
- Mathematical methods *see* Computerization, Modeling
- Media for electrophoresis 58, 60, 61, 63, 68(review), 69, 71-73, 1870
- see also* Gel(s)
- Membrane electrophoresis 65, 2257
- Microemulsion electrokinetic chromatography 2588
- Miniaturization in electrophoresis 715, 1910, 1911(review), 1937
- see also* entries under Capillary zone electrophoresis; Chip electrophoresis

- Mobility, electrophoretic 10, 217, 232, 341, 1002, 1005, 1034, 1040, 1600, 1676, 1768, 1796, 1838, 1844, 2025, 2035, 2592, 2642, 2651, 2673, 2679, 2681, 2869, 2874, 2881, 3138, 3232, 3234, 3285
 —, —, markers 1836
 —, shift see Electrophoretic mobility shift assay
 Modeling 23, 1085, 1087, 1114, 1837-1840, 1880, 2439, 2479, 2489, 2682, 2709, 2710
 see also Simulation; Computerization
 Molecular weight, calculation 28
 Moving boundary gel electrophoresis 15
 Nitrocellulose transfer technique see Blotting techniques
 Nomenclature 16
 Nonlinear electrophoresis 1033
 Nonlinearity 1828
 Northern blotting see Blotting techniques; Immunoblotting
 Nucleotide mapping see structural studies in individual entries in the List of Types of Compounds Chromatographed
 Ogsian gel electrophoretic sieving 1040
 Optimization 121, 132, 161, 190, 192, 195, 205, 237, 277, 278, 28, 290, 302, 325, 331, 930, 952, 954, 957, 966, 967, 971, 976, 983, 985, 1135, 1155, 1226, 1228, 1230, 1387, 1755, 1761, 1781, 1807, 1809, 1817(review), 1875, 1906, 1927, 1947, 1977, 2016, 2022, 2024, 2026, 2037, 2109, 2110, 2196, 2313, 2348, 2473, 2577, 2594, 2606, 2660, 2668, 2717, 2728, 2749, 2783, 2784, 2798, 2849, 2850, 2852, 2882, 3011, 3039, 3099, 3190, 3217, 3245, 3246, 3248, 3271, 3287, 3296, 3302
 Orthogonal field alternation gel electrophoresis see Field inversion electrophoresis and other types of field inversion
 Paper electrophoresis 246, 247, 298, 1047, 1808
 Partition coefficient 1902
 Peak dispersion 2682
 — overlap 1086(review)
 — shape 1037, 1144
 Peptide mapping see structural studies in individual entries in the List of Types of Compounds Chromatographed
 pH effects 195, 201, 241, 285, 288, 616, 954, 960, 966, 971, 983, 1104, 1129, 1165, 1185, 1387, 1760, 1761, 1812, 1875, 1947, 2009, 2022-2024, 2026, 2037, 2047, 2313, 2577, 2660, 2783, 2784, 2798, 2882, 2952, 3011, 3065, 3099, 3212, 3217, 3248, 3296
 see also Capillary zone electrophoresis, mobile phase, pH
 PhastSystem 57, 222, 315, 432, 612, 812, 864, 1262, 1276, 1361, 1383, 1494, 1522, 1547, 1550, 2123, 2535
 pH gradients, immobilized see Gradients, pH, immobilized
 PhosphorImager 410, 636, 1508, 1615, 2252, 2295, 3014
 Planar chip technology see Chip electrophoresis
 Polyacrylamide gel containing ethylene glycol 2518
 — polymerization 66
 — pore radius 3166
 — rehydratable 3199
 — strengthened with agarose 1403
 —, various modification 72
 — matrices, novel monomer 58
 —, uncrosslinked 905, 1702
 Polyacrylamide-agarose gel 1481
 Polyacrylamide-glycerol gel 669
 Polyacrylamide-urea gel 686, 1445, 1606, 2376
 Poly(N-acylalkylenimine) support media 1082
 Poly(ethylene glycol)methacrylate-acrylamide copolymer 60
 Poly(N-isopropylacrylamide) gel 71
 Ponceau S staining 2873
 Postcolumn derivatization 42, 1208
 Precolumn derivatization 157, 196, 207, 283(review), 289, 295, 1051, 1120, 1207, 1210, 1760, 1955, 1997, 2018, 2038, 2693, 2791, 2840, 2842, 2851, 2864
 Preparative electrophoresis 75-77, 333, 350, 363, 468, 1149, 1182, 1229, 1263, 1385, 2054, 2153, 2557, 2820, 2886, 2889, 2931
 — reflux electrophoresis 1084
 Preservation of gel 1075
 see also Capillary zone electrophoresis, preparative; Isoelectric focusing, preparative
 Pulsed field electrophoresis, applications 256, 339, 792, 795, 800, 802, 810, 813, 818, 824, 829, 835-837, 847, 850, 898, 1594, 1646, 1648, 1650, 1651, 1669, 1670, 1678, 1742, 2395, 2431, 2432, 2437, 2440, 2442, 2445, 2450, 2453, 2467, 2475, 2493, 2509, 2521, 2522, 2539, 2546, 2562, 2923, 2926, 3127, 3133, 3142, 3146, 3149, 3151, 3163, 3168, 3169, 3176, 3188, 3191, 3283
 — — —, automation 1882
 — — —, comparison with ribotyping and plasmid profiling 3163
 — — —, reviews 849, 1799, 2435, 2449, 2452, 3156
 — — —, two-dimensional 2508
 Quantitation 13, 49, 74, 122, 156, 201, 209, 218, 230, 249, 279, 290, 295, 343, 344, 470, 490, 586, 727, 728, 942, 945, 955, 957, 963, 971, 974, 982, 983, 986, 997, 999, 1018, 1021, 1022, 1069, 1083, 1172, 1186, 1231, 1277, 1286, 1380, 1445, 1590, 1708, 1771, 1804, 1807, 1814, 1817(review), 1830, 1946, 1962, 2038, 2046, 2160, 2180, 2196, 2335, 2407, 2529, 2577, 2581, 2582, 2604, 2606, 2609, 2624, 2663, 2668, 2783, 2829, 2848, 2859, 2896, 2961, 3010, 3102, 3103, 3213, 3221, 3227, 3231, 3244-3247, 3253, 3256, 3259, 3263, 3267, 3269, 3270, 3273, 3286, 3288, 3289, 3296, 3298, 3300, 3304
 see also Capillary zone electrophoresis, quantitation
 Rehydration of dried gels 1878
 Reloading 1744
 Review(s), agarose glyoxyl 68
 —, affinity electrophoresis 1095, 1886
 — — —, capillary 2813
 —, applications to various fields of science and technology 6, 346, 453, 748, 806, 965, 1001, 1032, 1244, 1369, 1370, 1490, 1822, 1843, 1868, 1953, 1982, 2042, 2065, 2114, 2128, 2352, 2367, 2390, 2647, 2652, 2830, 2898, 2936, 3038, 3187
 —, automation 283
 —, blotting techniques 2049
 —, capillaries 1898
 —, capillary chromatography, micellar 4, 1024, 1820, 1896, 1928, 2617, 2672, 2713, 2722, 2723, 2726, 2736
 —, — gel electrophoresis 1023, 1024, 1643, 1876, 2043, 3198
 —, — ion electrophoresis 1819
 —, — zone electrophoresis 3-5, 54, 86, 87, 98, 113, 136, 137, 158, 165, 171, 202, 283, 989, 1024, 1026-1028, 1097, 1110, 1115, 1119, 1121, 1124, 1126, 1130, 1132, 1167, 1232, 1270, 1281, 1643, 1659, 1680, 1773, 1776, 1777, 1788, 1818, 1821, 1823, 1894-1896, 1898, 1901, 1903, 1905, 1909, 1911, 1917(review), 1921, 1922, 1925, 1935, 1940, 1956, 1999, 2043, 2597, 2600, 2617, 2620, 2621, 2671, 2696, 2698, 2713, 2720, 2722, 2723, 2726, 2730, 2732, 2736, 2741, 2754, 2790, 2793, 2794, 2797, 2813, 2857, 2887, 3198, 3237, 3239, 3241, 3272, 3280, 3309
 —, cellulose acetate electrophoresis 1872

- Review(s), computerization 2894
 —, coupling with MS 1061, 1090, 1132, 2671
 —, —, NMR 79, 2713
 —, database 2894
 —, derivatization 3, 283
 —, detection 54, 1821, 1869, 2157, 2367, 2696, 2698, 3198, 3309
 —, disc gel electrophoresis 1032
 —, electroosmotic flow 1031
 —, elution from gels 2065
 —, enantiomer separation 158, 165, 171, 1917, 1935, 1999, 2730
see also Capillary zone electrophoresis
 —, field inversion electrophoresis 2501
 —, free fluid electrophoresis 1841
 —, gradient(s) gels, denaturing 1714, 2519
 —, —, pH, immobilized 1934
 —, hydrodynamic flow 1841
 —, image analysis 1029, 1864
 —, immunochemical techniques in electrophoresis 453, 1370
 —, immunoelectrophoresis, affinity 1969
 —, instrumentation 137, 1925, 2754
 —, isoelectric focusing 1872, 1934, 2114, 2885
 —, —, capillary 1121
 —, isotachophoresis 4, 1011, 1151, 1872
 —, media for electrophoresis 68
 —, miniaturization in electrophoresis 1911
 —, optimization 1817
 —, peak overlap 1086
 —, precolumn derivatization 283
 —, pulsed field electrophoresis 849, 1799, 2435, 2449, 2452, 3156
 —, quantitation 1817
 —, silver staining 2151
 —, staining 1879
 —, temperature control 1124
 —, theory of electrophoresis 1817, 1818, 1841, 1842
 —, two dimensional electrophoresis 1785, 1982, 2034, 2151, 2157, 2212, 2540, 2618, 2894
 Rhodamine staining 1750
 RNA mapping *see* structural studies in individual entries in the List of Types of Compounds Chromatographed
 Rocket immunoelectrophoresis 2984
 Ruthenium red staining 1535
 Sample application 14, 31, 101, 122, 125, 150, 1855, 1912, 2734, 2740
 —, conditioning 67
 —, enrichment 972, 1890, 2666, 2716, 2750, 2756, 2888, 2895
 —, pretreatment 2055, 2750, 2765, 2888
 Sedimentation equilibrium – quantitative PAGE (SE-PAGE)
 Semi-dry electrotransfer *see* Blotting techniques
 Silver stain procedures 76, 175, 218, 223, 236, 327, 332, 375, 377, 405, 416, 419, 429, 434, 449, 457, 471, 473, 492, 494, 498, 511, 522, 533, 536, 539, 560, 566, 643, 655, 662, 679, 683-685, 687, 698, 807, 819, 848, 857, 1007, 1076, 1083, 1159, 1178, 1262, 1277, 1298, 1317, 1348, 1355, 1392, 1394, 1470, 1480, 1484, 1508, 1535, 1547, 2046, 2078, 2089, 2123, 2124, 2151(*review*), 2173, 2202, 2245, 2288, 2700, 2772, 2809, 2816, 2872, 2877, 2902, 2908, 2914, 2915, 2919, 2934, 2942, 2948, 2954, 2959, 2963, 2967, 2970, 2974, 2975, 2983, 2989, 3001, 3003, 3008, 3019, 3021, 3026, 3068, 3126, 3140, 3157, 3193
 Simulation 302, 813, 1887, 1893 *see also* Modeling
 Smoluchowski equation 20
 Software *see* Computerization
 Southern blotting *see* Blotting techniques
 Sponge-like electrophoresis media 61
 SSCP (single-strand conformation polymorphism) gel electrophoresis 1668, 2535, 2550, 3126
 Stability of gels 1744, 2706
 Staining comparison 2084
 —, controlling 45
 —, double 1257
 —, new 1261, 2033
 —, procedures *see* Detection procedures; Silver stain procedures and other staining procedures
 —, —, review 1879
 Storage of gels 70, 2706
 TDAB-polyacrylamide gel electrophoresis 2365
 Temperature control 1124(*review*)
 —, controller 40
 —, effects 124, 201, 311, 937, 954, 1209, 1795
see also Capillary zone electrophoresis, temperature effects
 —, gradient gel electrophoresis (TGGE) 652, 819, 869, 883, 918, 2382, 2389, 2486, 2500, 3029, 3066, 3185, 3189, 3193, 3197, 3205
 —, low electrophoresis 60
 —, perpendicular-gradient gel electrophoresis 1683
 —, sweep gel electrophoresis 904
 Theory of electrophoresis 8, 19, 127, 173, 1037, 1038, 1041, 1117, 1759, 1817(*review*), 1818(*review*), 1832, 1833, 1841(*review*), 1842(*review*), 1892, 2009, 2680-2684, 2764, 3147, 3203
see also Capillary zone electrophoresis, theory
 Toluidine blue staining 215
 Transfer techniques *see* Blotting techniques; Electroblotting; Immunoblotting
 Trapping gel electrophoresis 3164
 Two-dimensional cryostat section electrophoresis 1936
 Two dimensional electrophoresis 61, 78, 175-178, 220, 229, 236, 317, 324, 327, 332, 346, 350, 353, 358, 360, 364, 367, 372, 382, 406, 413, 417, 425-427, 429, 430, 434, 435, 438, 441, 457, 470, 471, 473, 475, 476, 478, 479, 492-494, 497, 508, 511, 513, 514, 522, 523, 528, 532-536, 538, 539, 553, 557, 558, 606, 632, 636, 642, 643, 676, 684, 693, 814, 990, 1007, 1083, 1158, 1159, 1197, 1254, 1268, 1273, 1276, 1291, 1314, 1329, 1337, 1362, 1371, 1375, 1394-1396, 1439, 1539, 1661, 1698, 1701, 1731, 1736, 1737, 1741, 1747, 1749, 1881, 1936-1938, 1952, 1971, 2007, 2027, 2029, 2036, 2044, 2046, 2060, 2072, 2082, 2085, 2089, 2095, 2096, 2099, 2121, 2124, 2129, 2135, 2166, 2173, 2179, 2199, 2200, 2217, 2225, 2245, 2255, 2256, 2277, 2302, 2336, 2388, 2488, 2533, 2560, 2772-2774, 2776, 2801, 2809, 2832, 2837, 2872, 2884, 2893, 2901, 2902, 2908, 2917-2919, 2928, 2931, 2932, 2934, 2938, 2942-2945, 2948, 2963-2965, 2967, 2968, 2970, 2974, 2980, 2983, 2987, 3000-3003, 3005, 3008, 3014, 3015, 3017-3019, 3041, 3042, 3047, 3068, 3091, 3150
 —, —, combination with HPLC 1268, 2029
 —, —, pulsed field electrophoresis 2508
 —, —, reviews 1785, 1982, 2034, 2151, 2157, 2212, 2540, 2618, 2894
 Ultrathin layer electrophoresis 2264, 2676
 Urea-polyacrylamide gel *see* Polyacrylamide-urea gel
 Western blotting *see* Blotting techniques; Immunoblotting
 Zymography *see* Detection and detectors, zymography