

Gas Chromatography

- Activity coefficients, measurements 34, 1370, 1827
- Adsorbent(s), *see* Sorbent(s) and bed(s)
- Adsorption, *see* Sorption
- Analyzer(s) 2276
 - , instrumentation 720, 1227, 1228, 1233, 1237, 1238, 1246, 1392, 1839, 1842, 1843, 1990, 2109, 2273
- Apparatus, *see* individual types of devices and sections on instrumentation in individual entries; Chromatograph(s), design 59
- Automation 5, 11, 50, 126, 248, 801, 1365, 1802
- Bed(s), *see* Sorbent(s) and bed(s)
- Books, applications 1151
 - , techniques 719
- Calibration, *see* Quantitation, calibration
- Capillary column(s) 349
 - —, coated 842, 1213, 1427
 - —, coupling 1234, 1450
 - —, efficiency 1285
 - —, elution processes 1191
 - —, fused silica 224, 291, 333, 462, 614, 799, 1985
 - —, glass 795
 - —, megabore 634, 911, 1141, 1299, 1447, 1477, 1665, 1765
 - —, metal 87, 109, 789, 979
 - —, micropacked 1173, 1875
 - —, modification 789, 1954
 - —, narrow bore 610, 1867
 - —, open tubular 719, 799
 - —, packed 1407, 1930, 2284
 - —, PLOT (porous layer open tubular) 87, 236, 483, 783, 787, 1282, 1801, 1886
 - —, preparation 1266
 - —, reviews and books 107, 1267, 1270
 - —, SCOT (support layer open tubular) 1876
 - —, thin film 1982
 - —, uncoated 1268
 - —, WCOT 864
 - —, wide bore 1911, 2149
- Capillary GC, applications 165, 206, 231, 242, 243, 246, 256, 269, 294, 308, 338, 340, 382, 383, 400, 429, 432, 433, 499, 508, 512, 514, 519, 531, 538, 545, 549, 629, 664, 680, 840, 865, 873, 875, 884, 889, 919, 942, 961, 970, 972, 988-990, 999, 1014, 1030, 1046, 1052, 1059, 1062, 1102, 1183, 1352, 1363, 1377, 1385, 1400, 1423, 1424, 1442, 1461, 1476, 1481, 1483, 1504, 1524, 1532, 1534, 1562, 1614, 1635, 1648, 1649, 1652, 1655, 1658, 1704, 1718, 1728, 1732, 1942, 1946, 1960, 1972, 2007, 2018, 2020, 2054, 2055, 2063, 2089, 2147, 2155, 2159, 2163, 2189, 2225, 2269, 2284
 - —, detector(s) and detection 362, 989, 1250, 1252
 - —, instrumentation 1232, 1846, 1857
 - —, multidimensional, *see* Multidimensional GC
 - —, optimization 388, 515, 686, 782, 788, 1051, 1291, 2024
 - —, pressure programmed, *see* Pressure programmed GC
 - —, pyrolysis, *see* Pyrolysis GC
 - —, retention data 415, 989
 - —, reviews and books 1815
- Capillary GC, separation mechanism 1268
 - —, standards 324
 - —, stationary phase(s) 88, 97, 234, 877, 1877
- Capillary GC, support(s) 113
 - —, temperature programmed, *see* Temperature programmed GC
 - GC/MS, *see* GC/MS, capillary
 - GLC, *see* Capillary GC
- Carrier gas, preparation 2026
 - —, properties 1556
- Chemometrics, applications 1281
- Chromatograph(s) 51
 - , design 53, 57, 59, 65, 757, 1239, 1243, 1722, 1841, 1844
 - , reviews and books 723
- Column(s), packed, efficiency 202, 1991
 - —, micro 179, 1278, 1857
 - —, microbore 92
 - —, narrow bore 227
 - —, optimization 110, 381, 388, 794
 - —, preparation 941
 - —, reviews and books 1267
 - , switching 54
- Computer(s), data analysis and processing 1543, 1895
 - , modelling 722, 725, 1129, 1896
 - , reviews and books 1295
 - , software 125, 1897, 1962
- Correlation GC 160
- Cryofocusing, applications 856, 1751, 2116, 2204
 - *see also* Preconcentration, cryotrapping
 - , techniques 862
- Cryotrapping, *see* Preconcentration, cryotrapping; Cryofocusing
- Data acquisition (without computers) 1209
 - reproducibility 672, 797
- Dead time and volume, measurements 7, 95
- Derivatization, acylation 275, 290, 323, 438, 449, 810, 890, 1456, 1997, 1999, 2020
 - , alkylation 698, 928, 1590, 1602, 1605, 1701, 1777, 1892, 1903, 2185
 - , esterification 396, 449, 472, 949, 963, 966, 1416, 1480, 1482, 2049, 2191, 2210
 - , etherification 166
 - , other types 277, 364, 466, 910, 947, 1002, 1117, 1434, 1451, 1589, 1792, 2015, 2093, 2095, 2099
 - , reagents 697
 - , reduction 1552, 1798, 1799, 2086
 - , reviews and books 1304
 - , silylation 48, 505, 742, 924, 972, 1093, 1457, 2062, 2291
 - , techniques 673, 1491, 1597, 2105
- Detection, alkali flame ionization 1075, 1657, 2143
 - , atomic emission 292, 465, 482, 500, 503, 715, 768, 773, 1032, 1052, 1788, 1862, 1863, 2176
 - , chemiluminescence 706, 769, 1248, 1258, 1260, 1261, 2319
 - , chlorine selective, *see* Detection, halogen selective
 - , electroantennographic 1316

- Detection, electrochemical (electroconductivity; ion selective; polarographic) 173, 2188
- , electron capture 227, 243, 250, 508, 517, 538, 547, 655, 871, 873, 878, 889, 946, 961, 999, 1000, 1046, 1051, 1053, 1055, 1056, 1181, 1385, 1552, 1562, 1591, 1600, 1628, 1631, 1650, 1663, 1666, 1669, 1865, 1867, 1958, 1964, 1972, 2113, 2191, 2318, 2320
- Detection, element specific 478, 768, 773, 779, 834, 1168, 1866, 2000
- , flame ionization 81, 505, 886, 985, 990, 1248, 1353, 1663, 1688, 2083, 2170
 - , — photometric 505, 594, 1059, 1061, 1359, 1561, 1565, 1571, 1586, 1588, 1604, 1606, 1651, 1656, 1773, 1804, 2104, 2107, 2117, 2124, 2156, 2160, 2161
 - , fluorescence 1030
 - , helium ionization, see Detection, inert gas ionization
 - , ion trap 547, 878, 997, 1072, 2214
 - , ionization, see Detection, alkali flame ionization
 - , mass selective 227, 465, 538, 594, 886, 889, 965, 990, 1051, 1064, 1527, 1660, 1971, 1993, 2143, 2150, 2236
 - , microwave induced plasma 73, 156, 479, 714
 - , Na ionization, see Detection, alkali flame ionization
 - , nitrogen selective 1660, 1788
 - , nitrogen-phosphorus selective 440, 503, 525, 569, 597, 629, 1046, 1070, 1125, 1160, 1626, 1663, 1666, 1688, 1892, 2158, 2170, 2174
 - , optimization 78, 575
 - , phosphorus selective 82
 - , photoionization 1027, 1346
 - , plasma emission 146, 484
 - , response 353, 776
 - , reviews and books 1861, 1966
 - , spectroscopic 704
 - , sulphur selective 82, 1254
 - , surface ionization 84, 1663, 1694, 1700
 - , techniques 70, 1859, 2079
 - , theory 764, 778
 - , thermionic, see Detection, alkali flame ionization
 - , ultraviolet absorption 2218, 2220
- Detector(s), aerosol ionization 71
- , alkali flame ionization (AFID) 71, 1022, 1868
 - , argon ionization, see Detector(s), inert gas ionization
 - , atomic emission spectrometer 1263, 1583, 2000
 - , chemiluminescent 75, 82, 2115
 - , electron capture (ECD) 74, 83, 764, 772, 775, 777, 1109
 - , flame ionization (FID) 69, 72, 690, 701, 764, 771, 772, 1265
 - , — photometric (FPD) 468, 469, 680, 713, 763, 764, 770, 1249, 1254, 1262
 - , fuel cell 1858
 - , helium ionization, see Detector(s), inert gas ionization
 - , high voltage spark 79
 - , inert gas ionization 83, 780
 - , ion mobility 1229
 - , ionization, see Detector(s), alkali flame ionization
 - , mass selective (MSD) 76, 585, 641, 909, 1105, 1791
 - , mercuric oxide reduction 254
 - , microwave induced plasma (MIP) 1264
 - , multifunctional 776, 2211
 - , Na ionization, see Detector(s), alkali flame ionization
 - , nitrogen selective 316, 690
- Detector(s), nitrogen-phosphorus selective 468, 527, 1069, 1653, 1665, 1705, 1713, 2322
- , photoionization 1016
 - , plasma glow discharge 1782, 1864
 - , Raman spectroscopy 1257
- Detector(s) 971
- see also detector sections in individual entries
 - , sulphur selective 690, 1256, 1259
 - , surface ionization 623, 1016, 1550, 1860, 2091
 - , thermal conductivity (TCD) 80, 1236, 1250, 1253, 1255, 1265, 1797, 2313
 - , — energy analyzer 435
 - , ultraviolet (UV) 1174, 1252
- Diffusion 805
- coefficients 1213
 - , measurements 735, 1211, 1829, 1830
- Distillation GC, simulation 1776, 1788, 2292
- SFC, application 830
- Distribution coefficients 991
- Education 1253, 1371, 1755, 1822, 1823
- Elution, see Retention
- Enantiomers separation 100, 105, 165, 244, 345, 367, 375, 379, 407, 586, 592, 612, 2105, 2244
- , —, correlation with retention data 101, 214, 274, 275, 1196, 1319, 1323, 1470, 1523, 1873, 1907, 2034
 - , —, data tabulated 244, 443, 918, 931, 982, 1212, 1313, 1315-1318, 1320, 1419, 1447, 1450, 1494, 1537, 1570, 1644, 1693, 1710, 2042, 2102, 2264
 - , —, reviews and books 168, 819, 1741, 1906
 - , —, techniques 88, 166, 571, 582, 815, 816, 983, 1043, 1097, 1314, 1322, 1431, 1468, 1540, 1541, 1579, 1711, 1908, 2071, 2134, 2267
 - , —, theory 817, 1189
- Enrichment, see Preconcentration, enrichment
- Equilibrium constants 565, 1210
- , phase, see Phase equilibria
- Fast GC, see High speed GC
- Flow perturbation GC, applications 1222
- — —, instrumentation 58
 - — —, kinetics 39
 - — —, reviews and books 1073
 - — —, theory 172
 - rate, instrumentation 1242
 - —, measurements 1235
 - —, programming 117
- GC/AAS, applications 480, 486, 487, 1592, 1593
- , detector(s) and detection 1035, 1594, 2137
- GC/AES, applications 464, 500, 912, 1036, 1162, 1168, 1592, 2096, 2125
- , detector(s) and detection 284, 752, 774, 779, 996, 1033, 1180, 1251, 1382, 1620, 1654
 - , instrumentation 63
 - , reviews and books 1899
- GC/chemical reaction interface MS 927
- GC/CIMS (chemical ionization MS) 451
- , applications 330, 351, 599, 678, 927, 1004, 1416, 1448, 1456, 1576, 1712, 2051, 2110, 2167
 - , detector(s) and detection 1582, 2085
- GC/EIMS, applications 577, 1010, 1491, 1551, 2016, 2110, 2111, 2177, 2243

- GC/EIMS, detector(s) and detection 2117
- GC/FTIR, applications 35, 135, 384, 454, 460, 466, 806, 847, 855, 856, 1006, 1103, 1203, 1303, 1425, 1547, 1593, 1608, 1911, 1948, 1980, 2035, 2194, 2217, 2256, 2293
- , chromatogram reconstruction 1996
- , data analysis 151, 473, 2082
- , instrumentation 134
- , reviews and books 1861
- , techniques 145, 148, 1298
- GC/FTIR/MS 138
- , applications 262, 315, 412, 425, 645, 985, 1147, 1539, 1554, 1735
- , techniques 930
- GC/GC, see Multidimensional GC
- GC/GC/MS 223
- , applications 1347
- GC/ICPMS (inductively coupled plasma MS) 133, 156, 481, 485, 1019, 1790
- , instrumentation 1373
- GC/IMS, instrumentation 132, 142, 615
- GC/ion trap MS 603
- — —, applications 399, 453, 630, 848, 883, 960, 1028, 1362, 1390, 1434, 1599, 1630, 1750, 1939, 1950, 2015, 2138, 2140
- GC/IRMS (isotope ratio MS) 130, 143, 892, 1501, 1574
- , applications 197, 363, 398, 475, 682, 716, 807, 1183, 1430, 1485, 1506, 1537, 1743, 1810, 1943, 2031, 2048
- , reviews and books 952
- GC/LC 150, 325, 390, 608, 1369, 1553, 2283, 2308
- GC/LC/MS 295, 455, 808, 1855
- GC/microwave induced plasma AES, applications 1379, 1596, 1597, 1605, 2316
- GC/MS, applications 37, 129, 144, 147, 157, 207, 210-213, 228, 231, 232, 241, 248, 250, 263-267, 270, 273, 287, 289, 299, 300, 302, 305, 322, 326-328, 332, 337, 339, 343, 356, 392, 393, 395, 401, 417, 421, 423, 424, 435, 438, 444, 446, 456, 460, 487, 493, 494, 497, 504, 523, 526, 529, 532, 536, 544, 570, 573, 576, 580, 583, 586-590, 595, 596, 601, 602, 606, 609, 612, 617, 620, 627, 631, 632, 644, 653, 666, 667, 669, 671, 674, 693, 698, 711, 804, 810, 841, 843, 855, 859, 866, 871, 873, 876, 893, 894, 896, 903, 904, 906, 913, 917, 920, 921, 928, 929, 932, 934, 947, 949, 955, 958, 959, 963, 964, 966, 967, 969, 971, 978, 984, 987, 988, 992, 995, 1003, 1006, 1011-1013, 1020, 1024, 1026, 1037, 1042, 1055, 1058, 1063, 1069, 1070, 1073, 1078, 1085, 1094-1096, 1099, 1102, 1104, 1106, 1107, 1110, 1114, 1116, 1117, 1117, 1124-1126, 1128, 1129, 1131, 1132, 1139, 1146, 1161, 1171, 1177, 1219, 1287, 1301, 1358, 1378, 1383, 1392, 1393, 1397, 1398, 1400, 1402, 1408, 1428, 1432, 1433, 1441, 1451, 1452, 1460, 1463, 1466, 1468, 1469, 1472, 1475, 1481, 1489, 1490, 1507, 1508, 1511-1514, 1516, 1517, 1529, 1533, 1534, 1536, 1542, 1544-1548, 1558, 1560, 1563, 1567, 1573, 1575, 1577, 1578, 1581, 1587, 1589, 1607, 1608, 1613, 1636, 1659, 1661, 1667, 1668, 1670, 1672, 1681, 1682, 1690, 1691, 1695, 1698, 1702, 1703, 1706, 1708, 1709, 1716, 1721, 1723-1725, 1727, 1731, 1736, 1749, 1751, 1754, 1762, 1770, 1771, 1781, 1784, 1809, 1828, 1945, 1952, 1957, 1968, 1976, 1978-1980, 1994, 2008, 2011, 2021, 2029, 2032, 2040, 2041, 2047, 2050, 2051, 2059, 2062, 2065, 2069, 2073, 2074, 2076, 2088, 2093, 2098, 2101, 2103, 2105, 2114, 2118, 2121, 2126, 2128, 2142, 2144, 2146, 2165, 2170, 2171, 2176, 2178, 2183, 2184, 2186, 2212, 2214, 2224, 2226, 2227, 2229, 2231, 2233-2235, 2237, 2240-2242, 2245, 2246, 2248, 2250, 2257, 2260-2262, 2268, 2271, 2277, 2289, 2291, 2301, 2312
- GC/MS, automation 758
- , capillary 203, 868, 1088, 1413, 1973
- , —, applications 303, 347, 354, 414, 416, 452, 534, 584, 940, 1108, 1388, 1435, 1495, 2221, 2239, 2307
- , —, instrumentation 127
- , —, pyrolysis, see Pyrolysis GC/MS
- , —, reviews and books 1689
- , —, techniques 618, 874
- , chromatogram reconstruction 1912
- , derivatization 1901
- , detector(s) and detection 240, 478, 622, 906, 968, 1902
- , head space, see Headspace GC/MS
- , instrumentation 131, 139, 152, 756, 802, 1299, 1852, 1856, 2237
- , reviews and books 129
- , techniques 27, 142, 394, 809, 854, 1009
- , theory 41
- GC/MS/FTIR 1861
- GC/MS/MS 1564
- , applications 251, 452, 506, 1566, 1726, 2001, 2119
- , instrumentation 1300, 1302
- GC/MS/SIM, applications 205, 279, 359, 624, 901, 937, 1007, 1018, 1023, 1028, 1048, 1067, 1098, 1100, 1115, 1157, 1391, 1569, 1572, 1598, 1619, 1624, 1662, 1697, 1756, 1766, 1958, 2004, 2136, 2161, 2185, 2187, 2216, 2219, 2228, 2252, 2253, 2289
- , detector(s) and detection 950, 1674, 1965, 2030
- , optimization 298
- , quantitation 293
- , reviews and books 1627
- GC/negative ion MS, applications 447, 450, 466, 613, 891, 935, 1111, 1121, 1296, 1437, 1456, 1497, 1509, 1557, 1564, 1640, 1641, 1643, 1712, 2130, 2190, 2215
- GC/NMR 511
- GC/olfactometry 767, 1145, 1146, 1149, 1468, 1738, 1742, 1746, 2077, 2211, 2270
- , reviews and books 412, 762, 1733
- GC/SFC, applications 1711
- GC/TLC, capillary 1711
- GSC, applications 14, 880, 1835
- , phase(s) 94, 1881
- , reviews and books 4
- , sorbent(s) 786, 1861, 1882
- , thermodynamics 38
- Headspace analysis 170
- — —, applications 29, 47, 160, 285, 312, 411, 412, 459, 565, 635, 648-650, 652, 683, 689, 692, 699, 700, 707, 718, 820, 878, 1021, 1032, 1036, 1082, 1090, 1133, 1210, 1215, 1359, 1360, 1375, 1396, 1399, 1420, 1440, 1443, 1522, 1568, 1678, 1683, 1730, 1740, 1742, 1747, 1771, 1785, 1789, 1793, 1800, 1804, 1805, 1807, 1904, 1987, 2014, 2230, 2266, 2319
- — —, automation 272, 543, 747, 760, 811, 1088, 1288
- — —, data analysis 657, 797
- — —, derivatization 487
- — —, detector(s) and detection 464, 2270
- — —, instrumentation 61, 216, 747
- — —, optimization 1140, 2265
- Headspace analysis, phase equilibria 1159
- — —, reviews and books 169

- Headspace analysis, techniques 162, 657, 1147
 — —, theory 116
 — GC/MS 464, 1083, 1134, 1144
 Heat(s) of physico-chemical processes, see Thermodynamics
 High resolution GC, see Capillary GC
 — speed GC, applications 788, 879, 1247, 1867
 — — —, techniques 117, 201, 245, 668, 799, 1324
 — temperature GC, applications 331, 675, 2054
 HPLC/GC, applications 218, 325, 1521, 1711
 —, reviews and books 1900
 HPLC/GC/MS, applications 974, 1744, 2060
 —, instrumentation 418
 Injection, at column, instrumentation 1230, 1245
 —, instrumentation 68, 1127, 1845, 2223
 —, on column, instrumentation 752, 760, 1231, 1357, 1390
 —, — —, techniques 751, 1001
 —, optimization 248, 260, 1851
 —, programmed temperature vapourizer 754, 755, 996, 1232, 1745, 1854
 —, reviews and books 52, 1184, 1814
 —, solvent effect 55
 —, split, techniques 2045
 —, split-splitless, instrumentation 2164
 —, splitless, techniques 510, 1060
 —, techniques 749, 753, 2208
 —, thermal desorption 352
 Instrumentation, see Apparatus; or individual types of devices and sections on instrumentation in individual entries
 Integrator(s) 124
 Inverse GC, applications 22, 23, 31, 42, 46, 554, 557, 558, 566, 639, 729, 735, 738, 792, 1080, 1081, 1086, 1101, 1205, 1223-1226, 1677, 1680, 1764, 1779, 1836, 2197
 — —, retention data 45
 — —, reviews and books 1, 1325, 2193
 — —, thermodynamics 25, 30, 36, 45, 562, 1206, 1675
 Kinetics, measurements 28
 —, modelling 1412
 Kovats' index(es), see Retention index(es)
 LC/GC, applications 404, 546, 761, 1050, 1465, 1518
 —, reviews and books 3
 LC/GC/MS 1950
 Liquid crystals, see Phase(s), stationary, liquid crystals
 — stationary phase(s), see Phase(s), stationary
 Mass transfer, measurements 1344
 Mc Reynolds' constants, measurements 1189
 Microcomputer(s), see Computer(s)
 Mixed phase(s), see Phase(s), mixed
 Mobile phase(s), see Phase(s), mobile
 Molecular interactions 44, 1198
 — —, thermodynamics 18, 1198
 — structure, see Structure study
 Multichromatography, applications 259, 983, 2071
 —, instrumentation 1854, 1878
 —, optimization 138
 —, reviews and books 5, 150
 Multidimensional GC, applications 260, 379, 509, 710, 854, 900, 1348, 1376, 1401, 1470, 1490, 1540, 1542, 1657
 — —, data analysis and processing 931
 — —, detector(s) and detection 507
 — —, instrumentation 64, 252, 685, 1816, 1850
 — —, optimization 247, 1857
 — —, reviews and books 5, 1816, 1850
 — —, techniques 171, 1950
 — —, theory 1818
 Multiple column GC, techniques 171, 745
 Optimization of data analysis 801
 — — resolution 1817
 — — separation processes 790, 793
 Packed column(s), see Column(s), packed
 Packing, see Column(s), packed, packing
 Pattern recognition 266
 Peak(s) calculation and theory 8, 118, 724, 814, 1192, 1819, 1888
 — modelling 121
 — optimization 1190
 — overlapping (resolution) 6, 124, 724, 814, 1821
 — shape 119, 725, 1194
 Phase(s), stationary, classification 20, 1280, 1281
 — —, optimization 209
 — —, reviews and books 111, 112
 — —, various (selected information only) 103
 — —, —, alumina 94
 — —, —, Carbowax (different types) 97
 — —, —, chelates 791, 792, 2310
 — —, —, chemically bonded 792
 — —, —, chiral (different types) 96, 167, 785, 818, 1097, 1189, 1530, 1687, 2102
 — —, —, Chirasil-Val 1314, 1315
 — —, —, copolymers 97
 — —, —, crown ethers 89, 108, 113, 114, 222, 796
 — —, —, cyano bonded 2199
 — —, —, cyclodextrins 85, 105, 109, 168, 318, 1317, 1318, 1320, 1323, 1447, 1450, 1468, 1523, 1873, 2034, 2042, 2070, 2264
 — —, —, liquid crystals 842, 1869, 1871, 1872, 1874, 1885
 — —, —, montmorillonites 1811
 — —, —, new and rare types 867, 1372, 1384, 1870, 1880
 — —, —, OV (different types) 111, 1284
 — —, —, PEG (different types) 111
 — —, —, polysiloxanes 89, 93, 106, 108, 222, 784, 796, 1274, 1687
 — —, —, porous polymers 787
 — —, —, SE (different types) 111, 1930
 — —, —, silica 1930
 — —, —, silica, modified 15, 99, 1881, 2199
 — —, —, silicones 1883
 — —, —, siloxanes 114, 1047, 1384, 1969
 — —, —, synthetic clays 1275
 — —, —, XE (different types) 111, 225
 Preconcentration 665
 —, adsorption 239, 241, 242, 302, 543, 651, 845, 866, 902, 1038, 1152, 1753, 2211
 —, chemisorption 1013, 1120
 Preconcentration, cryotrapping 148, 283, 1103, 1747, 2108
 see also Cryofocusing
 —, distillation 635, 1650
 —, enrichment 164, 288, 408, 430, 501, 656, 811, 1071, 1307, 1905, 1956
 —, extraction 159, 257, 334, 436, 457, 537, 676, 712, 832, 851, 865, 885, 986, 1052, 1066, 1312, 1350, 1796, 1849, 2013, 2030, 2175, 2249, 2317
 —, instrumentation 498, 2211

- Preconcentration, membrane extraction 1155, 2144
 —, purge-and-trap (stripping) 66, 208, 210, 216, 235, 238, 319, 564, 641, 654, 666, 670, 868, 878, 1021, 1166, 1356, 1415, 1593, 1739, 1749, 1756, 1945, 1971, 1973, 2008, 2116, 2277, 2280
 —, reviews and books 1879
 —, solid phase extraction 104, 161, 221, 293, 297, 344, 399, 431, 497, 500, 505, 520, 522, 528, 534, 539, 547, 549, 569, 593, 595, 660, 813, 850, 886, 914, 1055, 1059, 1067, 1078, 1093, 1305, 1306, 1335, 1355, 1389, 1589, 1590, 1596, 1620, 1653, 1654, 1669, 1672, 1697, 1724, 1750, 1757, 1951, 1970, 1998, 2050, 2058, 2061, 2132, 2133, 2135, 2155, 2156, 2170, 2180, 2188, 2240, 2241, 2267, 2279
 —, techniques 163, 968, 1959, 2153
 —, trapping 67, 162, 164, 411, 463, 521, 662, 692, 831, 980, 1155, 1179, 1310, 1335, 1414, 1438, 1542, 1610, 1715, 1740, 1752, 1838, 2094, 2307
 Preparative GC, applications 307, 1710, 2042
 — —, instrumentation 1889, 1890
 — —, techniques 149, 1890
 Pressure programmed GC 117, 118, 123, 296, 863, 2164, 2305
 Process GC, applications 688, 702, 759, 1848
 — —, instrumentation 49, 1294, 1839, 1851
 — —, reviews and books 1185, 1286
 — —, techniques 1894
 Pulsed GC 465
 Purge-and-trap, see Preconcentration, purge-and-trap
 Pyrolysis GC, applications 219, 258, 441, 469, 552, 553, 568, 1163, 1405, 1412, 1446, 1455, 1676, 1684, 1759, 1760, 1767, 1769, 1777, 1778, 1787, 1837, 1934, 1988, 2107, 2112, 2200, 2247, 2258, 2298, 2300, 2303, 2306
 — —, instrumentation 567
 — —, optimization 1411
 — —, reviews and books 1087, 2196
 — —, techniques 673, 694, 695
 — GC/FTIR, applications 1165, 2204, 2206
 — GC/FTIR/MS 1167
 — GC/MS 140, 1084, 1772
 — —, applications 488, 561, 563, 638, 684, 691, 925, 1169, 1301, 1458, 1774, 1775, 2204, 2205, 2251, 2287, 2288, 2290, 2297, 2302, 2304
 — —, reviews and books 1186, 2202
 — —, techniques 1361, 1986
 Quantitation, optimization 200
 —, techniques 572
 Radio GC, applications 235
 Reaction GC, applications 844
 Response factor(s), see Detection, response
 Retention data, see Capacity factor(s); Retention index(es); Retention time(s) and volume(s)
 Retention factor(s) 1280
 — index(es) 1209
 — —, calculation 123
 — —, correlation with molecular structure 1366, 1459, 1947, 1964, 2005
 — —, correlation with physical parameters 1826, 2006
 — —, — — separation system 786, 1459
 — —, — — thermodynamic data 1825
 — —, increments 1008
 — —, prediction 798, 800, 1193, 1368, 1967, 2052
 — —, tabulated 237, 320, 406, 1008, 1142, 1784, 1985, 2057
 Retention index(es), theory 1089
 — Kovats' index(es), see Retention index(es)
 — time(s) and volume(s), calculation 1395
 — — — —, correlation with physical parameter
 — — — —, — — separation system 1831
 — — — —, prediction 123, 1938, 2024
 — — — —, tabulated 984, 987, 1418, 1871, 2238
 — — — —, theory 1191
 —, correlation with molecular structure 21, 229, 1381, 1692
 —, — — physical parameters 2057
 —, — — separation system 726
 —, — — thermodynamic data 222
 —, data tabulated 229, 236, 413, 434, 1015, 1428
 —, theory 12, 1818
 Reversed flow GC, see Flow perturbation GC
 — phase GC, see Inverse GC
 Reviews, applications of GC to various fields of science and technology 2, 217, 490, 721, 1054, 1138, 1603, 1627, 1813, 1909, 1937, 2090, 2202, 2207, 2259, 2272, 2274, 2275, 2286, 2296
 —, chromatography general 1170, 1188, 1893
 —, data analysis and processing 1092
 —, instrumentation 1244, 1583, 1812, 1893
 Sample cleanup 442, 812, 897, 976, 1394, 1985, 2002, 2165
 — —, solid phase extraction 158, 746, 1056, 1391, 1439, 2004, 2136, 2153, 2186
 — collection 60, 668, 743, 806, 1889, 1963, 2139
 — pretreatment 1364, 1435, 1461, 1855, 1884
 Sampling, automation 1846, 1848, 1887
 —, instrumentation 56, 61, 66, 162, 668, 706, 750, 826, 1227, 1271, 1311, 1385, 1796, 2315
 —, quantitation 63, 578, 755, 1240, 1311
 —, reviews and books 1308
 —, techniques 170, 1150, 1153, 1154, 1241, 1853, 1900, 1905
 SFC, applications 376, 389, 491, 492, 556, 625, 626, 828, 849, 858, 956, 1039, 1065, 1097, 1407, 1457, 1503, 1579, 1612, 1618, 1693, 1768, 1780, 1951, 2033, 2169
 —, capillary, applications 165, 306, 582, 592, 830, 1500, 2039
 —, column(s), capillary 100, 471, 816, 1031, 1329
 — —, packed 579, 581, 681, 888, 1258, 1276, 1696, 1875, 1928
 —, detector(s) and detection 73, 77, 173, 313, 524, 769, 1040, 1258, 1329, 1331, 1332, 1346
 —, efficiency 1340
 —, instrumentation 60, 178, 181, 188, 194, 720, 821, 823, 994, 1913
 —, mobile phase(s) 174, 1328
 —, modifiers 179, 189, 625, 821
 —, optimization 176, 827, 833, 1820
 SFC, preparative 177, 826, 1327, 1333, 1915, 1920, 1921
 —, pressure programming 62, 1919
 —, programming 836
 —, retention 178, 372, 825, 962, 1341, 1345, 1638, 2199
 —, — data 185, 1930
 —, reviews and books 175, 181, 191, 193, 571, 954, 1091, 1927, 1933, 2145
 —, sample introduction 184, 744
 —, sorbent(s) and support(s) 1340, 1500
 —, techniques 180
 —, theory 185
 —, thermodynamics 192, 727, 737, 1342
 SFC/FTIR, applications 1673, 1926

- SFC/FTIR, reviews and books 150
 —, techniques 145
 SFC/GC, applications 882
 —, instrumentation 862
 —, reviews and books 1338
 SFC/HPLC, applications 1579
 SFC/ICPMS, applications 477
 SFC/microwave induced plasma AES 1031
 SFC/MS 679
 —, applications 489, 1673
 —, detector(s) and detection 803
 —, instrumentation 136
 —, reviews and books 1914, 1925
 —, techniques 141
 SFC/NMR, techniques 128, 1898
 SFC/SFC, applications 1916
 SFE, applications 195, 226, 284, 365, 410, 521, 535, 541, 859, 924, 933, 984, 987, 1049, 1066, 1159, 1330, 1335, 1337, 1358, 1380, 1387, 1414, 1590, 1611, 1618, 1621, 1629, 1632, 1652, 1664, 1717, 1758, 1929, 1944, 1949, 1959, 1963, 1975, 1976, 1989, 1997, 2027, 2062, 2072, 2087, 2122, 2123, 2138, 2139, 2151, 2162, 2172, 2177, 2180, 2185, 2255, 2261
 —, instrumentation 67, 187, 188, 835, 994, 1332, 1917
 —, optimization 257, 518, 1039, 1156, 1334, 1923, 2148
 —, preparative 824, 1344, 1638, 2022, 2078
 —, reviews and books 186, 190, 191, 196, 1336, 1498, 1609, 1916, 1918, 1924, 1931, 1932
 —, supercritical fluid(s) 159, 829, 1334, 1621, 1922
 —, techniques 183, 831, 832, 834, 902, 1367, 2263
 —, theory 1339, 2198
 SFE/FTIR 182, 1931
 SFE/GC, applications 482, 881, 981, 2084
 SFE/GC/FTIR 137
 SFE/GC/MS 304, 420
 —, applications 813, 1510
 SFE/HPLC, applications 1615
 SFE/IR, applications 602, 1326
 SFE/NMR 1297
 SFE/SFC, applications 420, 513, 1761, 2081
 —, instrumentation 822
 —, reviews and books 1343, 1928
 —, techniques 153, 476
 SFE/SFC/MS 560, 1929, 2195
 Sorbent(s) and bed(s), modification 861
 — — —, properties 90
 Sorbent(s) and bed(s), various (selected information only) 91, 1953
 — — —, —, activated carbon 17
 — — —, —, alumina 786, 1374
 — — —, —, carbon black (different types) 86, 229, 430, 861, 1202, 1309, 1310, 1879
 — — —, —, carbon fibres 1309
 — — —, —, Carboxpack (different types) 1349
 — — —, —, cellulose 88
 Sorbent(s) and bed(s), graphite 44
 — — —, —, graphitized carbon 781, 1961
 — — —, —, molecular sieves 730, 734, 1173, 2314
 — — —, —, new and rare types 16, 98, 115, 877, 1196, 1208, 1239, 1269, 1272, 1277, 1278, 1283, 1757, 1795, 1970
 — — —, —, Porapak (different types) 1179
 — — —, —, porous polymers 1273
 — — —, —, silica 1374
 — — —, —, silica gel 495, 1195, 1835
 — — —, —, Tenax (different types) 242
 — — —, —, zeolites 33
 Sorption coefficients 1221
 — effect chromatography 1268
 —, general aspects 38
 —, isotherms 31, 38, 728, 1222
 —, kinetics 1195
 —, measurements 24, 1202
 —, thermodynamics and equilibria 14, 17, 26, 1224
 Standard(s), properties 1647
 Stationary phase(s), see Phase(s), stationary
 Steam distillation GC, see Phase(s), mobile, water steam and other vapours
 Stopped flow GC, see Flow perturbation GC
 Stripping, see Preconcentration, purge-and-trap (stripping)
 Structure study 159
 Subcritical fluid chromatography 571
 Supercritical fluid chromatography, see SFC
 Support(s), deactivation 335
 —, properties 1279
 —, various (selected information only), diatomites 252
 Surface area measurements 732
 — phenomena 30, 729, 735, 738, 741, 1199, 1205, 1225, 2197
 —, thermodynamics 731, 739
 Temperature programmed GC, applications 276, 938, 1499, 1853, 2009, 2181
 — — —, instrumentation 122, 798, 1293
 — — —, retention data 800, 846, 1292, 1549, 1625, 1938
 — — —, techniques 1891
 — — —, temperature prediction 19, 846, 1291
 — — —, — programming 120, 1962, 2305
 — — —, theory 121, 1290
 Theory of chromatography, reviews and books 10, 1824
 see also sections on theory in individual entries
 Thermochromatography, instrumentation 1910
 Thermodynamics, data correlation with retention data 1197, 1825
 —, measurements 16, 458, 733, 736, 1204, 1217
 —, modelling 1216, 1834
 Thin layer chromatography/GC, applications 1585
 Trace analysis, applications 519
 Trace analysis, techniques 657
 Trapping, see Preconcentration, trapping
 Valve(s), design 1848