

## Bibliography Section

### Liquid Column Chromatography

#### 1. REVIEWS AND BOOKS

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#### 2. FUNDAMENTALS, THEORY AND GENERAL

##### 2a. General

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##### 2b. Thermodynamics and theoretical relationships

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### 2c. Relationship between structure and chromatographic behaviour

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#### 3f. Programmed temperature, pressure, vapors, gradients

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## 4. SPECIAL TECHNIQUES

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### 4c. Combination with other physico-chemical techniques (MS, IR etc.)

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33. CLINICO-CHEMICAL APPLICATIONS
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34. FOOD ANALYSIS
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## Gas Chromatography

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### 5. HYDROCARBONS AND HALOGEN DERIVATIVES

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## 8. SUBSTANCES CONTAINING HETEROCYCLIC OXYGEN

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19. PROTEINS
- 19l. *Specific binding and receptor proteins*
- See 1506.
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- 35b. *Air pollution (complex mixtures; single compounds by cross-reference only)*
- See 2421, 3036.
- 35c. *Water pollution (complex mixtures; single compounds by cross-reference only)*
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# BIBLIOGRAPHY SECTION

SUPPLEMENT TO THE  
JOURNAL OF CHROMATOGRAPHY A  
1998

INDEXES





## INTRODUCTION

Presenting the Subject Index for all the four different parts of the Bibliography Section as well as presenting the Index of Types of Compounds Chromatographed has become a tradition in the Journal. The following indexes refer to both volumes of Bibliography published this year (820 and 821). Because the methodological part differs substantially in different techniques, we have retained the subdivision system, using the following abbreviations: C = Liquid column chromatography, E = Electrophoresis, G = Gas chromatography, P = Planar chromatography. In the Index of Types of Compounds Chromatographed all types of methods are indicated in the individual entries by appropriate abbreviations. Entries relevant to supercritical fluid chromatography are to be looked for in the section on Gas Chromatography. Micellar electrokinetic chromatography is to be looked for in the section on Electrophoresis. In entries that are heavily populated by chromatographic papers we made a further subdivision into Techniques and Applications. In the Subject Index a selection was made in such entries and an appropriate note was attached. Commonly used sorbents and procedures were not included into the Index. Reviews are clearly indicated.

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## Subject Index

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Please, note that this Index refers to the entry numbers in the Bibliography Section (*J. Chromatogr. A*, Vols. 820 and 821). Individual parts of the Bibliography Section (Liquid Column Chromatography, Gas Chromatography, Planar Chromatography and Electrophoresis) are numbered separately.

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## Index of Types of Compounds Chromatographed

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This Index follows generally identical rules as those published in previous years i.e. references of general interest and techniques are within a given entry listed first, followed by applications and finally by papers limited to certain area of applications only. This, however, is applicable to highly populated entries, where subdivision appeared necessary. As in the past years the individual parts of the Bibliography Section i.e. Liquid column chromatography (C), Gas chromatography (G), Planar chromatography (P) and Electrophoresis (E) were numbered separately. Therefore the respective shortening should direct the reader to one of the techniques first before looking for a particular number (identical numbers occur under different techniques). Please note that this Index refers to the entry numbers in the Bibliography Section, J. Chromatogr. A, Vols. 820 and 821.

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- C: 302, 1312, 1319, 2533
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- C: 973-987, 2095-2118, 3380-3405, 4430-4439
- G: 447, 897, 898
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- Anorexic compounds, see Appetite depressants
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- P: 65
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- C: 853, 3177, 3230, 3231, 4295, 4347
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- C: 205, 208
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- C: 2977, 3206, 4145, 4161, 4177
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- C: 2006, 3443, 3607, 4201
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- C: 1885, 3116, 4250
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- C: 1887, 3116, 3118, 3133, 4246, 4257
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- E: 773, 1478, 1671, 2177
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- C: 795, 821, 834, 1321, 1983, 2896, 2900, 4343
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- C: 855, 856, 858, 861, 864-866, 868, 886, 900, 1456, 1875, 1949, 2135, 3175, 3176, 3179, 3180, 3183, 3186, 3189, 3213, 3220, 4218, 4293, 4294, 4298, 4301, 4303, 4304, 4306, 4308, 4309, 4331
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- C: 738, 907, 1865, 2472, 3211, 3227, 3228, 4335
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**Anticonvulsants**

- C: 149, 799, 842, 1526, 1900-1903, 1916, 1918, 1925, 1926, 1928, 1931, 3167, 3169, 3172, 4237, 4265(review), 4271, 4279, 4281  
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- C: 797, 817, 831, 843, 1904, 1913, 1914, 1920, 1922-1924, 1930, 1934, 3139, 3140, 3149, 3154, 3159, 3170, 4243, 4267, 4268, 4276(review), 4287, 4290, 4364  
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**Antidiabetics, oral**

- C: 1989, 3222, 3224, 3237, 4328, 4349, 4352  
 G: 1734  
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**Antiemetics**

- C: 1941, 3210, 4327  
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**Antiepileptics, see Anticonvulsants****Antifertility agents, see Contraceptives****Antifungal antibiotics**

- C: 683, 701, 1769, 1777, 1782, 2984, 2998, 4115, 4135, 4148  
 P: 440

**Anti glaucoma drugs**

- C: 3136, 4252  
 E: 774, 786

**Antihistamines**

- C: 795, 820, 828, 1886, 1896, 1921, 3150, 3156, 3163, 4218, 4272, 4346  
 P: 74, 207, 213, 452  
 E: 781, 2182

**Antihypertensives, see Hypotensives and antihypertensives****Antiimmunodeficiency drugs, see Antiviral agents****Antiinflammatory agents, see Antirheumatics****Antimalarial drugs**

- C: 850, 857, 859, 863, 903, 1051, 1941, 1946, 2918, 3181, 3190, 3219, 3235, 4305, 4307, 4333  
 G: 375, 376, 1730  
 E: 719, 722

**Antimycotics**

- C: 849, 862, 868, 4297  
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**Antioxidants and preservatives**

- C: 652, 948, 1180, 1929, 2014, 2039, 3234, 3297, 3672, 4213  
 G: 432, 875, 1355, 1783  
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**Antiparasitic drugs**

- C: 851, 1938, 1939, 1943, 1949, 3184, 3187, 3188, 4126, 4293, 4296, 4302  
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**Antiparkinsonics**

- C: 815, 845  
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- C: 1958, 3182

**Antipyretics, analgesics**

- C: 819, 820, 830, 832, 837, 840, 1749, 1866, 1868, 1871, 1915, 1918, 3098, 3106, 3109, 3111, 3113, 3152, 3155, 3162, 3171, 4269, 4271, 4273, 4277, 4291(review), 4292  
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- P: 206, 448

- E: 204, 719, 879, 1488, 1490, 2168, 2178, 2181, 2183, 3048, 3050

**Antirheumatics (antiinflammatory, antiarthritics)**

- C: 155, 283, 317, 787-794, 838, 844, 991, 1862-1871, 1958, 3094-3112, 3124, 3162, 3572, 4229-4235, 4273

- G: 359, 802, 803, 1280, 1587, 1599, 1733

- P: 71-73, 204, 347-349, 448, 449

- E: 770, 844, 963, 1474-1476, 1608, 1677, 1775, 2162-2169, 2375, 3043

**Antiseptics, see Antibacterials****Antitumor antibiotics**

- C: 691, 695, 698, 699, 705, 1766, 1798, 2968, 2977, 2982, 2985, 2993, 2997, 3206

- P: 327, 328

- E: 740

**Antitussives**

- C: 885, 891, 1909, 1973, 3119, 3155, 4248

- G: 1283

**Antilulcer compounds**

- C: 1028, 1935, 1936, 1968, 1976, 1977, 1985, 3145, 3147, 4112  
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- E: 1493, 2172, 2195

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**Antiviral agents**

- C: 460, 628, 848, 890, 901, 1770, 1947, 1948, 1964, 1967, 1972, 1974, 1975, 1979, 2639, 3214, 3225, 3264, 4299, 4300, 4310, 4336, 4341, 4345, 4350

- E: 2190, 2193, 3053, 3055

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- G: 846

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- C: 976, 1531, 1731, 2092, 2928, 2929, 3330, 4088

- G: 300, 301, 743, 745, 768, 1654, 1655, 1658

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- G: 283

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- C: 3252

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- C: 2574

- G: 568, 711

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- Bitter substances
- C: 1341, 2326, 2550, 3494
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- C: 1151, 1732(review), 4439
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- C: 891, 1899, 2225, 3174
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- Chromoproteins and metalloproteins  
 C: 339, 478-481, 482(review), 483-487, 1133(review), 1434, 1539-1548, 1549(review), 2655, 2744-2756, 2985, 3274, 3485, 3861-3874, 4355  
 E: 31, 368(review), 393-395, 396(review), 397-401, 402(review), 1063, 1158, 1183-1192, 1470, 1899, 2276, 2612-2624, 2649  
 —, structural studies  
 C: 410, 1469, 1538, 2677, 3797, 3872
- Cinchona alkaloids  
 E: 722, 2117
- Clinico-chemical applications (endogenous compounds in body fluids)  
 C: 221, 260, 306, 333, 344, 347, 353-355, 374, 422, 461, 481, 577, 657, 808, 924, 1059, 1187, 1206, 1246, 1249, 1264, 1308, 1309, 1327, 1328, 1361, 1367, 1371, 1379, 1382, 1383, 1387, 1389, 1394, 1396, 1402, 1431, 1434, 1520, 1531, 1541, 1544, 1547, 1675, 1705, 1718, 1723, 1761, 1764, 2012-2014, 2086, 2095, 2096, 2277, 2420, 2437, 2443, 2472, 2478, 2527, 2539, 2588, 2596, 2602, 2604, 2610, 2640, 2641, 2729, 2746, 2749, 2756, 2818, 2866, 2870, 2955, 2964, 3080, 3274, 3275, 3345, 3609, 3671, 3723, 3731, 3733, 3763, 3781, 3843, 3853, 3856, 3865, 3868, 3870, 3874, 3977, 4069, 4383, 4399, 4431  
 G: 212, 232, 262, 281, 554, 640, 687, 959  
 P: 259, 271, 273, 307, 317  
 E: 85, 233, 237, 242, 243, 247, 263, 267, 277, 357, 361, 362, 367, 397, 399-401, 417, 418, 420, 450, 452, 457, 503, 547, 550, 573, 577, 600, 618, 625, 657, 661, 712, 718, 760, 790, 798-804, 836, 841, 983, 1025, 1060, 1063, 1162, 1174, 1183, 1184, 1187, 1233, 1279, 1282, 1289, 1336, 1365, 1368, 1369, 1372, 1377, 1403, 1409, 1410, 1417, 1420, 1504-1506, 1528, 1709, 1745, 1763, 1869-1871, 1878, 1882, 1899, 1910, 1946, 1960, 2062, 2069, 2073, 2089, 2092, 2106, 2124, 2212-2219, 2241, 2343, 2407, 2426-2428, 2573, 2575, 2578, 2586, 2590, 2597, 2612, 2613, 2624, 2640, 2717, 2737, 2740, 2800, 2864, 2959, 2969, 2971, 3065-3074  
 see also individual categories of endogenous compounds
- , reviews and books  
 C: 400, 922, 2010, 2011, 2089  
 P: 92  
 E: 86, 368, 589, 619, 795-797, 805, 2210, 2211
- , profiling body fluids  
 C: 923, 979  
 G: 52, 90, 196, 213, 397, 588, 657, 659, 668, 714, 814, 840, 852, 954, 1110, 1138, 1301, 1312, 1313, 1424, 1549, 1570, 1573, 1578, 1599, 1601, 1615, 1741, 1781  
 E: 2216

## Coal analysis

- C: 1169
- G: 28, 135, 877, 878, 1043, 1117, 1373, 1800
- P: 369

## Coal tar and bitumens, hydrocarbons in

- C: 950, 952, 1173, 2361
- G: 1042, 1363, 1763
- P: 377

Cobalamins, *see* Vitamins, B<sub>12</sub> groupCobalt, *see* Cations, inorganic, analytical group III

## Cocciostatics

- C: 2971

## Coordination compounds

- C: 649-651, 966, 1736-1740, 1742, 2626, 2930-2935, 3055, 3351, 3531, 4091, 4319
  - G: 302-304, 531, 536, 1410, 1431, 1432
  - P: 62, 191, 322, 439
  - E: 731, 733, 734, 1434-1437, 2129-2132, 3107, 3113
- see also* Amino acids, metal complexes

## —, reviews

- C: 1732, 1741
- E: 732

Copper, *see* Cations, inorganic, analytical group IIaCoronar vasodilators, *see* Vasodilators

## Cosmetics

- C: 1280, 1281, 2033, 2479, 3180
- G: 442, 882, 893, 1372, 1799
- P: 81, 341
- E: 2194

## Coumarins

- C: 204, 907, 1200, 2399, 2401, 3270, 3279
- G: 177, 632, 634
- P: 120, 125, 183
- E: 190, 982, 1467(review)

## Crude oil and petroleum analysis

- C: 169, 952, 2360, 2362
  - G: 31, 38, 129, 131, 132, 154, 156, 159-161, 471, 550, 578, 581, 599, 613, 615, 720, 863, 886, 888, 1038, 1068, 1069, 1347, 1357, 1361, 1366, 1369, 1370, 1515, 1531, 1776, 1778, 1796-1798
  - P: 117, 378
- see also* Hydrocarbons, complex mixtures

Cyanates, *see* Halides and other inorganic halogen compoundsCyanides, *see* Halides and other inorganic halogen compounds

## Cytostatics

- C: 397, 460, 610, 691, 869-879, 1332, 1339, 1443, 1673, 1952-1962, 2549, 2576, 2644, 2866, 2874, 2890, 3192-3210, 3269, 3572, 4311-4324, 4366, 4371, 4376
  - G: 378, 379, 838, 1298, 1732
  - P: 54, 79, 210
  - E: 546(review), 740, 783, 784, 1495, 2192, 2243, 3056, 3057
- see also* Antitumor antibiotics; Purines, analogues of purines, pyrimidines, nucleotides, nucleosides

## D

Desinfectants, *see* AntibacterialsDetergents, *see* Surfactants, emulsifiers and detergents

## Diagnostics

- E: 799, 1496, 2198

## Diazines

- C: 1715
- G: 284
- E: 1431

## Dioxans and dioxins

- C: 1142, 2412, 3608
- G: 181-183, 289, 637, 1086-1089, 1091-1093, 1545, 1546, 1555

## Diuretics

- C: 801, 811, 896, 1697, 1874, 1879, 1969, 3129, 3135, 3212, 3216, 3226, 4236, 4238, 4251, 4253
- P: 206
- E: 1295

## DNA, reviews

- C: 2862, 2884
- G: 759
- E: 589, 594, 596, 619, 626, 1309, 1359, 1555, 1633, 2004, 2014, 2019, 2034, 2038, 2072, 2095, 2268, 2914, 2930, 2990

## —, techniques

- C: 621, 622, 953, 1043, 1395, 1687, 1690, 2882, 2883, 2885, 2887, 4046, 4047, 4049, 4050
- E: 37, 73, 565, 574, 578, 592, 593, 597, 598, 603, 606, 608, 611, 612, 615, 620, 621, 624, 627-630, 870, 886, 1313, 1315, 1317-1320, 1322, 1326, 1327, 1330, 1331, 1333, 1335, 1337, 1338, 1341-1349, 1351, 1354, 1356, 1358, 1370, 1581, 1582, 1813, 1985, 1987, 2005, 2008, 2011, 2012, 2016-2018, 2021, 2026, 2028, 2030, 2032, 2033, 2036, 2037, 2039, 2041, 2042, 2044, 2046, 2047, 2049, 2050, 2093, 2312, 2318, 2348, 2883, 2887, 2889-2891, 2896, 2905, 2910, 2913, 2919, 2921, 2922, 2929, 2935, 2937, 2938, 2956, 2971, 2994

## —, applications, non-biological

- C: 620, 1688, 1689, 2594, 2795, 2878, 2881
- G: 1179, 1633
- E: 281, 560, 561, 566, 587, 588, 601, 602, 605, 609, 613, 616, 617, 622, 623, 632, 633, 783, 1302, 1314, 1325, 1340, 1350, 1352, 1353, 1355, 1360, 1421, 1847, 2007, 2010, 2025, 2027, 2040, 2051-2053, 2553, 2814, 2833, 2835, 2843, 2877, 2880-2882, 2884-2888, 2892, 2894, 2895, 2897-2904, 2906, 2908, 2909, 2911, 2912, 2915-2918, 2920, 2923-2928, 2931-2934, 2936, 2946, 3016

## —, —, microorganisms

- C: 1689, 2886, 4048
- E: 590, 591, 595, 599, 604, 612, 616, 622, 631, 1316, 1321, 1325, 1328, 1329, 1334, 1337, 1413, 2004(review), 2006, 2013-2015, 2019(review), 2020, 2022-2024, 2035, 2043, 2045, 2048, 2619, 2893, 2907, 3076

## —, —, plants

- E: 672, 1305, 1332, 1339, 2051

## —, —, animal material

- C: 2882
- E: 600, 607, 610, 614, 618, 625, 1109, 1118, 1323, 1324, 1336, 1357, 1500, 2009, 2029, 2038(review), 2816, 2923, 2980

## —, chemically modified

- C: 623, 1636
- E: 1361

- , structural studies
    - C: 624, 1691(review), 1692, 1693, 2224, 2888-2889, 3440, 4050
    - G: 719
    - E: 588, 589(review), 590, 623, 640-644, 645(review), 646-657, 658(review), 659-675, 676(review), 677-718, 800, 1314, 1323, 1330, 1365, 1366(review), 1367(review), 1368-1375, 1376(review), 1377-1404, 1405(review), 1406(review), 1407-1421, 1499, 1504-1506, 1514, 1519, 1555(review), 1580, 1604, 1882, 1977, 1982, 2008, 2031, 2035, 2044, 2047, 2048, 2057(review), 2058(review), 2059-2062, 2063(review), 2064(review), 2065, 2066(review), 2067-2071, 2072(review), 2073, 2074(review), 2075-2078, 2079(review), 2080, 2081(review), 2082, 2083, 2084(review), 2085-2090, 2091(review), 2092-2094, 2095(review), 2096-2106, 2107(review), 2108, 2109(review), 2110-2116, 2212-2215, 2217-2219, 2325(review), 2348, 2428, 2460, 2465, 2624, 2659, 2697, 2779, 2835, 2843, 2923, 2938, 2942, 2950, 2952-2989, 2990(review), 2991-3013, 3066-3069, 3071, 3073, 3074
  - , complex mixtures of DNA and RNA and DNA-RNA hybrids
    - C: 4051
    - E: 92, 1422(review), 1423(review), 1976, 1989, 2473(review), 2609, 2883, 3014-3019
  - Drug monitoring and pharmacokinetics studies, reviews and books
    - G: 358, 805, 818, 842, 1302, 1548, 1695, 1697, 1699, 1700, 1702-1704, 1720, 1722, 1726, 1727
    - see also individual categories of drugs
  - Drugs of abuse (general papers)
    - C: 627, 910, 1906, 4353, 4356(review), 4360(review), 4361(review), 4365(review)
    - G: 384, 387-389, 391, 828, 844, 848, 1300, 1301, 1304, 1306, 1738
    - P: 82, 83, 456(review)
    - E: 782, 829, 3051, 3052, 3064(review)
    - see also individual categories of drugs
  - , other
    - C: 161, 369, 419, 603, 847, 852, 883, 887-889, 894, 895, 897, 900, 904, 906, 907, 1963, 1965, 1966, 1970, 1984, 1990, 2283, 3233, 3236, 3239-3243, 3245, 3246, 3573, 4321, 4326, 4330, 4334, 4337, 4339, 4340, 4342, 4348
    - G: 1277, 1309
    - P: 61, 76, 80, 359, 361-364
    - E: 803, 3054, 3058
  - , synthetic, see Pharmaceutical applications and individual types of drugs
  - Dyes, natural, see Pigments, natural
  - Dyes synthetic, reviews
    - C: 3052
  - , theory and techniques
    - C: 2237, 3053, 3056, 3057, 4197
    - P: 341
    - E: 750, 3034
  - , applications
    - C: 18, 741, 1827, 1828, 1915, 1949, 3051, 3054, 3055, 3058
    - G: 711, 1793
    - E: 751, 752, 1461, 2357, 3034
    - see also Food dyes; Textile dyes (including bleaching agents)
- ## E
- Ecdysones and other insect hormones of steroid nature
    - C: 2289
    - P: 156, 422
    - E: 2432
  - Endorphins, enkephalins and their analogues
    - C: 374, 1407, 1414(review), 1458, 2648
    - E: 263, 899, 1767
  - Environmental analysis (general papers)
    - C: 713, 935, 1052, 2035, 2747, 3046, 3307, 3363, 3608, 4394
    - E: 126, 1550, 2226, 2392
  - , reviews and books
    - C: 2026-2028, 2117, 3182, 3286, 4392
    - E: 810, 811, 1510, 1511
  - Enzymes (including activity measurement)
    - C: 512-602, 1574-1670, 2780-2858, 3916-4030
    - P: 308, 431
    - E: 464-541, 1242-1282, 1929-1969, 2689-2779
  - , general techniques and reviews
    - C: 3823, 3916(book), 3917
    - E: 103, 121, 465, 466(review), 467(review), 468, 867, 1242, 1277
  - , activity measurement
    - C: 561(review), 602, 613, 1408, 1412, 1419(review), 1449, 2832, 2844, 2879, 3742, 3916(book), 3953, 4011, 4031
    - P: 42(review)
    - E: 135, 218, 273, 464(review), 509, 524, 542, 1267, 1595, 1599, 1954, 2264(review), 2705
  - , complex mixtures and incompletely defined enzymes
    - C: 1669, 1670, 4030
    - E: 540, 541, 1967-1969, 2772, 2776, 2778
  - , —, structural studies
    - G: 1634
    - see also individual categories of enzymes
  - Ephedra alkaloids
    - C: 4052
    - P: 60
  - Epoxydes
    - G: 575, 588, 689, 1506, 1553
  - Epoxy resins
    - G: 1271
  - Ergot alkaloides
    - E: 1456, 2119
  - Essential oils
    - C: 320, 2500, 2550
    - G: 222, 242, 244-253, 396, 694-702, 765, 1151-1159, 1161, 1162, 1164-1166, 1244, 1390, 1613, 1614
    - P: 163
  - Ethers, aliphatic ethers
    - C: 2154(review), 3065
    - G: 185, 639, 641, 1002, 1096, 1098, 1099, 1102, 1547, 1551, 1553
    - E: 1565(review)
  - , cyclic ethers
    - C: 183, 212, 2154(review), 2317
    - G: 184, 187, 189, 1101, 1150, 1551, 1557
    - E: 1565(review)
  - Epectorants
    - C: 891, 3221

## Explosives

- C: 3535, 4403, 4401
- G: 260, 707, 1396, 1470, 1616, 1617
- P: 217
- E: 1498, 1531

## F

## Ferrocenes

- C: 2927
- G: 293

## Ferrocyanides and ferricyanides

- G: 1266

## Flame retardants

- G: 291

Flavins, *see* Vitamins, B<sub>2</sub> and other flavinsFlavonoids and  $\gamma$ -pyrone derivatives

- C: 189-192, 1183-1189, 1195, 2016(review), 2025, 2345, 2372, 2379-2390, 3570-3573
- G: 178-180, 1083
- P: 29, 120-124, 390
- E: 189, 817, 980, 1467(review), 1701-1703

Flavours, volatiles, odours, *see* Organoleptics

## Fluorinated antibiotics

- C: 690, 1779, 1790, 1794, 4133, 4140, 4155

## Folic acid and other pteridine derivatives

- C: 672, 2938, 2955
- G: 747

## Food analysis

- C: 138, 196, 208, 271, 332, 341, 631, 640, 645, 654, 655, 658, 662, 683, 685, 689, 696, 704, 712, 721, 734, 750, 752, 854, 864, 867, 908, 930-934, 948, 973, 984, 1060, 1181, 1184, 1190, 1204, 1205, 1209, 1211, 1213, 1291, 1339, 1342, 1346, 1354, 1375, 1376, 1390, 1533, 1748, 1780, 1785, 1811, 1812, 1819, 1949, 2017-2019, 2021, 2022, 2060, 2092, 2368, 2374, 2375, 2379, 2382, 2385, 2392, 2394, 2402, 2424, 2430, 2445, 2482, 2491, 2492, 2503, 2505, 2567, 2570, 2585-2587, 2718, 2723, 2875, 2936, 2941, 2946, 2951, 2967, 2971, 3027, 3029, 3030, 3041, 3051, 3178, 3183, 3185, 3277, 3281-3285, 3297, 3398, 3566, 3582, 3591, 3593, 3597, 3601, 3602, 3611, 3612, 3615, 3617, 3711, 3712, 3718, 3730, 3812, 4039, 4092, 4100, 4101, 4105, 4109, 4113, 4121, 4126, 4137, 4156-4159, 4167, 4173, 4180, 4194, 4294, 4295, 4375, 4384, 4386, 4388-4391, 4432
- G: 130, 167, 183, 202, 208, 219, 221, 224, 258, 265, 272, 308, 310, 313, 317, 324, 331, 336, 337, 348, 398, 400-411, 446, 454, 577, 586, 601, 610, 618, 627, 633, 641, 642, 662, 664, 684-686, 729, 750, 751, 753, 757, 769, 850, 851, 853, 855-858, 860-862, 872, 910, 986, 1031, 1046, 1049, 1054, 1059, 1070, 1072, 1095, 1100, 1103, 1134, 1136, 1142, 1145, 1163, 1200, 1203, 1219, 1220, 1222, 1235, 1254, 1259, 1270, 1314, 1316, 1318, 1326, 1354, 1355, 1386, 1452, 1500, 1527, 1532, 1559, 1607, 1623, 1640, 1643, 1646, 1650, 1660, 1662, 1710, 1742-1744, 1746-1750, 1752, 1753, 1803
- P: 179, 230, 255, 299, 326, 440, 442
- E: 221, 344, 735, 806-809, 817, 976, 977, 981, 1018, 1141, 1170, 1238, 1429, 1463, 1508, 1509, 1540, 1705, 1707, 1757, 1760, 1766, 1862, 1888, 2133, 2220, 2222-2224, 2229, 2341,

2461, 2631, 2632, 3025, 3075, 3116

## Food analysis, reviews

- C: 925-929, 1421, 2015, 2016, 2020, 2023, 2994, 3087, 3088, 3276, 3278-3280, 3583, 4143, 4169, 4385, 4387, 4392
  - E: 407, 1507, 2221, 2353
- see also* Antioxidants and preservatives; Medicated feeds; analysis of individual food constituents

## Food dyes

- C: 740, 932, 3049, 3050, 3058, 4196, 4202
- P: 342, 445
- E: 2145

## Fullerenes

- C: 175, 1166, 1172, 2218, 2350, 2354, 3555

## Fumigants

- C: 3564
- G: 1262, 1803
- P: 387

## Fungicides

- C: 730-734, 862, 1825, 3041, 4140, 4194
- G: 346-348, 622, 641, 782, 783, 1263, 1684, 1685
- P: 202
- E: 1460

## Furans

- C: 1140, 1198, 3270, 3283, 3599-3601, 3730
- G: 635, 1004
- P: 396

## Furocoumarins

- C: 207, 1192
- P: 30

## G

Gallium, *see* Cations, inorganic, analytical group IIIGangliosides, *see* Sphingolipids

## Gases

- G: 260, 450, 453, 455, 900, 989, 1361, 1380, 1382, 1383, 1388, 1425, 1435, 1698, 1792, 1802

## Gibberelins

- C: 202, 2016(review)
- G: 1192

## Glucosinolates

- G: 1197, 1198
- E: 3025

## Glycerides, simple

- C: 2521
  - G: 202, 219-225, 672, 673, 675-677, 1131, 1132, 1134-1136, 1594, 1595, 1597
  - P: 274, 284, 285, 289
- see also* Carboxylic acids, higher fatty acids, simple esters

## Glycolipids

- C: 2512
  - P: 39, 44, 48, 278, 283, 415
- see also* Phospholipids; Sphingolipids

## Glycols and polyols

- C: 181, 232, 2217, 2363, 2366, 2476, 2559, 3063, 3566
- G: 166, 168, 486, 719, 1535
- P: 253



## Glycoproteins and glycopeptides, techniques

C: 254, 257(review), 261, 264, 265, 1212(review), 1217, 1250(review), 1254, 1259(review), 1493, 3650(review)

G: 647

E: 212(review), 213, 214, 368(review), 1005, 1006, 1008, 1009, 1012, 1013, 1128, 1720(review), 1721, 1774, 2406, 2409(review), 2414

## —, applications, non-biological

C: 1252, 3646, 3649

P: 262

E: 211, 1011

## —, —, microorganisms

C: 258, 1253, 3656

E: 2419

## —, —, plants

C: 103, 1505, 2578, 3648

G: 1567

E: 1726

see also Lectins

## —, —, animal material

C: 256, 259, 260, 263, 266, 267, 381, 489, 1249, 1253, 1255, 1257, 1258, 1262, 1513, 2463-2465, 2467, 2468, 2470, 2472, 3644, 3654, 3657, 3829

E: 210, 215, 266, 325, 399, 400, 1010, 1161, 1722, 1723, 1725, 1727, 1729, 1899, 1911, 2401, 2402, 2407, 2410, 2411, 2413(review), 2415, 2792

## —, structure investigation

C: 406, 924, 1208, 1209, 1215, 1217, 1218, 1228, 1231, 1255, 1263, 2467, 2469, 3626, 3650, 3651, 3653, 3657

P: 399

E: 210, 986-988, 1002, 1003, 1727-1729, 2412

## Glycosaminoglycans (including proteoglycans of connective tissue)

C: 239, 241, 243, 246-248, 250, 253, 255, 262, 1220, 1234, 1238, 1245-1247, 1260, 1645, 2429, 2449, 2453, 2456, 2457, 2459, 2466, 3624, 3630, 3631, 3634, 3636, 3639, 3642, 3645, 3655

P: 137

E: 205, 207, 1000(review), 1004, 1007, 1717, 2400, 2403, 2416

see also Glycoproteins and glycopeptides, applications, animal material

## —, structural studies

C: 244, 245, 1236, 1239, 1240, 1256, 2450, 2455, 3635

E: 194, 995

see also Carbohydrates, derivatives, amino sugars

## Growth factors

C: 372, 379, 380, 1258, 1426, 2500, 2634, 3897

G: 399, 721, 1193

E: 264, 1061, 1066, 1741, 1777, 1781, 1783, 2459, 2684

see also Pituitary hormones and proteins; Gibberelins

## Gold, see Platinum metals and gold

## Guanidine and guanidine derivatives

C: 1356, 1366, 1720, 2575

G: 262

**H**

## Haemostatics

C: 4344

E: 1479

## Halides and other inorganic halogen-containing compounds (including cyanides and cyanates)

C: 974, 975, 978, 981, 987, 988, 1094, 2098, 2106, 2115, 2116, 2118, 2425, 2931, 3380, 3382, 3383, 3389, 3391, 3392, 3396, 3399-3402, 3404, 3405, 4431, 4432, 4437

G: 455, 897, 898

E: 137, 835, 837, 2253, 2255, 2257, 3118

## Hallucinogens (including cannabis constituents)

C: 913, 3161, 3257, 3542

G: 383, 387, 390, 393, 825, 843, 1303, 1310

P: 365

## Halogen derivatives of hydrocarbons, see Hydrocarbons, halogen derivatives

## Halogens

C: 2101, 2110, 2113

## Herbicides, general techniques

C: 1817, 1820, 1824, 2023, 3033, 3035, 3037, 4186, 4189, 4190

G: 1680

P: 340

E: 1452, 1456, 1458, 1459

## —, carboxylic acid, anilides and related compounds

C: 723-726, 729, 1821-1823, 3038, 4191-4193

G: 339, 343, 1249, 1251, 1255, 1261, 1264, 1265, 1678, 1681-1683

E: 748, 749, 962, 2381

## —, triazine derivatives

C: 708, 727, 1801, 1824, 2165, 2299, 3016, 3036, 4187, 4188

G: 306, 341, 755, 774-780, 1021, 1250, 1257, 1259

P: 201

E: 82, 1455, 1457, 2144

## —, urea derivatives

C: 708, 722, 728, 827, 2141, 2263, 3032, 3034, 3039, 3040, 3288, 4185

G: 1258, 1677

E: 1560

## Heterocyclics, nitrogen (other)

C: 639-642, 1154, 1285, 1713, 1714, 1717, 3235, 3709, 3742, 4079

G: 280, 394, 719, 1172, 1178, 1180, 1188, 1196, 1316

P: 187, 188, 246, 377, 436

E: 2124

see also individual groups of nitrogen containing heterocyclics and drugs

## —, oxygen (other)

C: 209, 4374

G: 636, 1090, 1101, 1547, 1548

P: 395

see also individual groups of oxygen containing heterocyclics

## —, sulphur (other)

C: 368, 1167(review), 1171, 1715, 2921

G: 137, 287, 435, 1199

see also Thiazoles and isothiazoles; Thiophenes

## Histamine and related substances

C: 1359, 2201, 2569, 3721

E: 248, 1040, 1043, 1757, 2437

see also Imidazoles

## Hormones peptidic and proteinous (including synthetic analogues)

C: 260, 377, 380, 401, 1493, 2579, 2614, 2619, 2624, 2640, 2642, 3755, 3781, 3787

- E: 265, 272, 1065, 1128, 1778  
 see also individual categories of peptidic hormones
- Hormones peptidic and proteinous (including synthetic analogues), synthesis and structural studies  
 C: 373, 403, 1424, 2664
- Humic acids  
 C: 749, 3504, 3545  
 G: 762, 880, 1001, 1364, 1773  
 E: 754, 2147-2149, 3036, 3037
- Hydrazines, hydrazides and hydrazones  
 G: 1175, 1196, 1622  
 P: 301
- Hydrocarbons  
 C: 169-180, 1165-1173, 2348-2362, 3554-3565  
 G: 126-163, 575-618, 1031-1071, 1499-1531  
 P: 27, 28, 117, 118, 387  
 E: 185, 974, 975, 1692-1694, 2387-2389
- , theory and techniques  
 G: 163, 549, 931, 1066, 1480
- , aliphatic  
 C: 169, 2555, 3554  
 G: 22, 25, 83, 126-131, 419, 422, 475, 490, 549, 566, 575-581, 612, 616, 617, 900, 915, 959, 1031-1037, 1039, 1146, 1337, 1338, 1340, 1403, 1485, 1499-1503  
 P: 94
- , cyclic  
 C: 64, 66, 67, 108, 144, 159, 169-174, 176-179, 1030, 1040, 1082, 1165, 1167(review), 1168, 1170, 1171, 1713, 2180, 2210, 2212, 2217, 2218, 2231, 2237, 2244, 2245, 2250, 2254, 2348, 2349, 2351-2353, 2355-2358, 2364, 2475, 3287, 3427, 3452, 3476, 3480, 3550, 3556-3562, 3935  
 G: 25, 107, 133-136, 138, 141, 230, 256, 538, 582-588, 590, 592-596, 605, 612, 616, 617, 874, 952, 972, 982, 995, 1040-1051, 1059, 1239, 1313, 1342, 1349, 1362, 1401, 1483, 1504-1507, 1509-1515, 1762  
 P: 15, 27, 28, 104, 118  
 E: 48, 73, 92, 131, 132, 151, 811(review), 913(review), 923, 927, 929, 941, 974, 975, 1510(review), 1550, 1570, 1627, 1639, 1666, 1668, 1692-1694, 2387, 2388
- , halogen derivatives  
 C: 180, 3287, 3480, 3563-3565  
 G: 30, 59, 137, 139, 140, 143, 144, 146-149, 151-153, 230, 452, 517, 598, 600-602, 604, 605, 607-609, 611, 870, 890, 938, 953, 995, 1052, 1055, 1062-1065, 1239, 1313, 1334, 1349, 1483, 1485, 1518, 1520, 1525, 1530, 1769  
 P: 387  
 E: 185, 186, 2344, 2389  
 see also Biphenyl and derivatives; Pesticides, chlorinated
- , complex mixtures  
 C: 169, 1165, 2362  
 G: 61, 155, 157, 158, 161, 162, 439, 496, 512, 614, 615, 618, 888, 1066, 1067, 1070, 1071, 1776
- Hydrogen  
 G: 159, 451, 1381, 1384
- Hydrolases, acting on ester bonds (E.C. 3.1.-.-)  
 C: 554-560, 561(review), 562-566, 1623-1634, 2816-2825, 3887, 3968-3980  
 G: 1059  
 E: 26, 335, 500-511, 1181, 1253, 1264, 1942-1950, 2732-2742, 2934, 2995
- Hydrolases, acting on ester bonds (E.C. 3.1.-.-), structural studies  
 C: 405, 414  
 E: 2734
- , acting on glycosyl compounds (E.C. 3.2.-.-)  
 C: 567-575, 592, 1635-1643, 2826-2836, 3981-3996  
 P: 308  
 E: 512-515, 535, 1265-1269, 1951-1954, 1968, 2743-2750, 2840
- , —, structural studies  
 C: 2659, 3793
- , acting on ether bonds (E.C. 3.3.-.-)  
 C: 4007, 4017
- , —, structural studies  
 C: 3799
- , acting on peptide bonds (E.C. 3.4.-.-)  
 C: 389, 394, 576-580, 582-584, 587-589, 1624, 1644, 1646, 1648-1658, 2837-2841, 2843-2845, 3952, 3998, 3999, 4001-4004, 4008-4010, 4013-4016  
 E: 423, 516-521, 525, 526, 528, 529, 531, 532-534, 1115, 1118, 1270-1273, 1275, 1277, 1955, 1957-1964, 2629, 2751, 2754, 2756-2759, 2761, 2763, 2764, 2907
- , —, structural studies  
 C: 424, 1462, 1464, 3997  
 E: 527, 2466
- , acting on C-N bonds other than peptide bonds (E.C. 3.5.-.-)  
 C: 586, 1645, 2842, 4000, 4006, 4012  
 E: 2762
- , acting on acid anhydride bonds (E.C. 3.6.-.-)  
 C: 378, 581, 585, 2846, 4005, 4031  
 E: 522, 523, 530, 1274, 1276, 1278, 1956, 2755, 2760
- , —, structural studies  
 C: 407, 585, 1471, 1472, 2666  
 E: 522, 2471
- , acting on sulphur-nitrogen bonds (E.C. 3.10.-.-)  
 C: 1647
- , uncompletely identified  
 E: 2753
- , activity measurement  
 C: 561(review), 1408, 1412, 1419(review), 2832, 2844, 2879, 4011, 4031  
 P: 42(review)  
 E: 273, 509, 524, 1057, 1267, 1954
- Hydroxamic acids  
 G: 302
- Hydroxylamines  
 C: 340
- Hypnotics (barbiturates, sedatives)  
 C: 149, 838, 1897, 1901, 1908, 1925, 1928, 3157, 3167, 3172, 4220, 4261, 4262, 4265(review), 4266, 4281, 4285, 4289, 4364  
 G: 363, 391, 395, 817, 827, 834, 1287, 1291, 1718, 1721, 1725  
 P: 355, 356, 451, 455  
 E: 108, 142, 775, 1484, 1487, 2188, 2380, 3047(review)
- Hypolipidemic agents  
 C: 793, 810, 880, 882, 902, 1978, 2976, 3244, 4240  
 P: 332
- Hypotensives and antihypertensives  
 C: 798, 801, 811, 813, 814, 893, 1878, 1881-1883, 1885, 1888, 1890, 3117, 3121, 3122, 3125, 3127-3130, 3132, 3138, 3223, 4236, 4239, 4247, 4251, 4255  
 G: 805, 811

P: 160, 205, 353

E: 801, 2176

see also Adrenergic and adrenergic blocking agents

## I

### Imidazoles and related compounds

C: 142, 603, 640, 734, 1097, 1354, 1720, 1944, 2919, 2920, 3247, 3433, 4077

G: 282, 1292

P: 57

E: 1037

see also Histamine and related substances

### Immunosuppressives and immunomodulatory drugs

C: 693, 838, 892, 905, 1796, 1797, 1942, 1982, 1988, 2983, 3218, 3232, 3238, 4147, 4171, 4338, 4351

E: 3032

see also Peptide and amino acid antibiotics

### Indole alkaloids

G: 274, 1185

P: 312

E: 1426

### Indoles, techniques

C: 635, 1140

#### —, applications

C: 827, 1354, 1363, 1707-1709, 2916, 3744, 4069-4072

G: 721, 1316, 1639, 1640

E: 724, 1761, 3023, 3072

### Inhibitors of enzymic activity, proteinous

C: 493, 504-509, 511, 1502, 1571, 2292, 2777, 2779, 3644, 3908, 3913

E: 336, 454, 458, 459, 461, 1142, 1234, 1235, 1237, 1925, 1926

#### —, —, structural studies

E: 1795

#### —, non-proteinous

C: 206, 811, 874, 880, 887, 890, 893, 895, 1888, 1951, 1967, 1971, 1974, 1975, 1980, 1993, 2283, 2873, 3225, 3240, 3243, 4116, 4245, 4252, 4329, 4336, 4350

P: 197, 352

E: 1588, 2200

### Inks

E: 753, 1462, 2146, 2201

### Inorganic compounds

C: 954-990, 2048-2120, 3306-3405, 4412-4440

G: 446-455, 897-905, 1379-1391, 1801-1806

P: 95-101, 234-238, 379, 460, 461

E: 822-843, 1527-1551, 2238-2260, 3097-3122

see also Anions, inorganic; Cations, inorganic; individual types of anions and cations

#### —, reviews and books

C: 994, 2048, 2049, 2150

E: 1564

### Insulin and analogues

C: 386, 387, 1138, 1454, 2625, 2630, 3754, 3757, 3765, 3777

E: 261, 269, 890, 1074, 1783, 1786, 1788, 2448

#### —, structural studies

C: 1420

### Iridoid glucosides

C: 3268

E: 2209

Iron, see Cations, inorganic, analytical group III

Isocyanates and cyanates, inorganic, see Halides and other inorganic halogen containing compounds

—, organic

C: 1369, 3727

### Isomerases

C: 598, 599, 1612, 1670, 2854, 2855, 4026

E: 539, 2768-2770

—, structural studies

C: 600

## J

### Juvenile hormones

C: 1268

## L

### Larvicides, insecticides

C: 735, 1814, 3047, 4195, 4295

G: 349, 350

E: 1461

### Laxatives

C: 2006

Lead, see Cations, inorganic, analytical group I and IIa

—, organic

G: 296, 320, 735, 739, 741, 754, 1790

E: 3029

### Lectins

C: 1251, 1261, 2471, 2473, 3647, 3652

E: 1624, 1724, 2404, 2405

Ligases, forming C-O bonds (E.C. 6.1.-.-)

C: 601, 1666, 2768, 2857, 2858

—, forming C-S bonds (E.C. 6.2.-.-)

C: 1667

—, forming C-N bonds (E.C. 6.3.-.-)

C: 1665, 4027-4029

—, forming C-C bonds (E.C. 6.4.-.-)

C: 1664, 2856

E: 1966

### Lignin compounds

C: 1178, 2039, 3264, 3298

G: 437, 438, 880, 1043, 1358, 1786

### Lipids

C: 287-296, 1291-1306, 2503-2524, 3676-3693

G: 216-225, 672-677, 1131-1136, 1594-1598

P: 37-49, 135-153, 267-290, 405-416

E: 227, 228, 1022-1033, 1743-1753, 2423-2425

—, reviews and books

C: 2016, 2507, 3680

G: 674

P: 42, 45, 270

E: 1022

## Lipids, general techniques

C: 291, 768, 773, 1293, 1294, 1296, 1301, 1303, 1305, 2440, 2510, 2511, 2514, 2515, 2518, 2519, 2522, 3679, 3682, 3685, 3687, 3689, 3691

G: 217

P: 37, 114, 151, 267, 268, 282, 412, 414

E: 2423

## —, group separation

C: 1293, 1300, 1303, 2510

G: 218

P: 141

## —, applications, non-biological

C: 294, 1294, 1302, 2504, 2506, 2516, 3692

P: 38, 39, 149, 275, 405

## —, —, microorganisms

C: 2524

P: 41, 43, 44, 274, 290, 416

## —, —, plants

C: 288, 293, 1300, 2503, 3678

G: 216, 676

P: 143, 269, 413

## —, —, blood

C: 2509, 2514, 3847

P: 135, 137, 142, 271

## —, —, brain and nerve tissue

C: 2512, 3688

P: 278, 411

E: 1744

## —, —, milk and food products

C: 1291, 2503, 2505, 2513

G: 218

P: 269, 270(review)

see also Food analysis

## —, —, other animal material

C: 295, 2508, 2517, 2518, 2521

P: 46, 48, 136, 140, 145, 147, 150, 153, 271, 276, 284, 285, 288, 289, 407, 408, 410

## —, oxidation products

C: 1267, 1292, 2403, 2508, 3681

P: 40, 144, 146, 397

## Lipopolysaccharides

C: 289, 4355

E: 790, 1423(review), 1719, 2424, 2425

## —, structure studies

C: 1295

G: 1598

## Lipoproteins (including apolipoproteins), reviews

C: 297

E: 238, 1027, 1028, 1033

## —, applications

C: 298-300, 1307-1310, 2525-2529, 2729, 3694, 3695, 4107

E: 31, 229-237, 239, 240, 1024-1026, 1029-1032, 1745-1753, 1878, 2423, 2426-2431, 2672

see also Proteins of blood, serum and blood cells

## Local anaesthetics, see Anaesthetics

## Lubricants

G: 604, 1790

## Lyases, carbon-carbon (E.C. 4.1.-.-)

C: 591-593, 595-597, 1659, 1660, 1670, 2851, 2852, 2856, 4020-4022, 4024, 4026

E: 535, 537, 1281, 2765

## Lyases, carbon-oxygen (E.C. 4.2.-.-)

C: 1661, 1669, 2847, 2849, 3824, 3948, 4019, 4023, 4025

E: 1279, 1282, 1965, 2667, 2767

## —, —, structural studies

C: 1662, 2672, 3801

G: 1584

## —, carbon-nitrogen (E.C. 4.3.-.-)

C: 590, 1663, 2850

## —, other

C: 2849

E: 538

## M

## Macrolides (including erythromycin)

C: 686, 1128, 1784, 1791, 1796, 2281, 2976, 2978, 2980, 2989, 2990, 2995, 2996, 3003, 3004, 4126, 4135, 4137, 4141(review), 4142, 4147, 4150, 4166, 4167

P: 332

E: 1443, 1444

## Magnesium, see Alkaline earths

## Manganese, see Cations, inorganic, analytical group III

## Medivated feeds

E: 739

## Mercury, see Cations, inorganic, analytical group I and IIa

## —, organo-compounds

G: 295, 298, 741, 742, 754, 1204, 1206, 1638, 1647, 1650, 1651

E: 1433, 3029

## Metalloenes

G: 304, 1457

## Mitogens, mutagens and related compounds (growth factors)

C: 4404

## Molybdenum, see Cations, inorganic, analytical group IIb

## Mycolic acids

G: 1128

## Mycotoxins, other

C: 195, 196, 198, 199, 773, 1193, 1194, 1196, 3574, 3575, 3577-3582, 3583(review), 3584, 3585(review), 3586(review), 3587, 3589-3593, 3595(review), 3596-3598

G: 1084, 1085, 1540-1544

P: 256, 391, 392(review), 393(review), 394(review)

E: 1704

see also Aflatoxins

## Myorelaxants

C: 846, 1697, 3109, 3142, 3151, 4228

P: 77

## N

## Narcotic analgesics and antagonists

C: 836, 1906, 1909, 4283, 4286

G: 370, 812, 813, 818, 1288, 1723, 1736, 1737, 1740

E: 1491

## Neuroleptics

C: 697, 835, 3166, 4263, 4284

G: 371, 823, 846

Neuromuscular blocking agents, *see* Myorelaxants; Cholinergic and cholinergic blocking substances

Nickel, *see* Cations, inorganic, analytical group III

Nicotinic acid and derivatives

C: 1743, 2945

G: 278, 724, 1187, 1189, 1635

E: 873, 2134

Niobium, *see* Cations, inorganic, analytical group III

Nitriles

G: 713, 900, 1173, 1624, 1625

*see also* Nitrogen compounds, inorganic

Nitro compounds

C: 125, 134, 185, 322, 1030, 1080, 1199, 2029, 2183, 2272, 2308, 2371, 2551-2553, 2555-2557, 3535, 4250, 4403

G: 176, 254-257, 259, 629, 631, 703, 705-707, 712, 1048, 1239, 1334, 1470, 1615, 1616, 1618, 1619

P: 295-297, 301, 425

E: 184, 929, 1696, 2225, 2276, 2434, 2435

*see also* Explosives

Nitrogen

G: 448, 602, 901, 1380, 1444

Nitrogen compounds, inorganic

C: 980, 973, 975, 984, 1060, 2095, 2100(review), 2111, 3384, 3385, 3397, 3398, 3400, 3602, 4435

G: 1336

E: 836, 841, 2253, 2257

*see also* Ammonia

Nitrogen oxides

C: 3391, 4440

G: 522, 901, 904, 1728, 1804

Nitrosamines

C: 2554

G: 258, 704, 1168

Nitroso compounds

C: 185, 321, 3707, 4081

Noble gases

G: 602, 1380

Noble metals, *see* Platinum metals and gold

Nucleic acids, *see* DNA; RNA

Nucleosides, *see* Purines, pyrimidines, nucleosides, nucleotides

Nucleotides, *see* Purines, pyrimidines, nucleosides, nucleotides

## O

Oestrogens, techniques and theory

C: 302, 2028

—, applications, non-biological

G: 1602

—, —, biological

C: 308, 1184, 1324, 2543

G: 235

Oligonucleotides and polynucleotides

C: 605, 609, 611, 615, 616, 618, 619, 876, 1677, 1682, 1683, 2250, 2862(review), 2863, 2865, 2877, 4036

E: 543-545, 548-551, 553-555, 558, 559, 732(review), 767, 1283, 1285, 1287, 1291, 1292, 1293(review), 1670, 1970, 1974-1976, 1980, 2333, 2780-2786, 2920

Oligosaccharides

C: 219, 222-224, 227, 229, 234, 237, 238, 1128, 1209, 1214-1216, 1218, 1223-1225, 1228-1230, 1233, 1236, 1255, 1605, 2016(review), 2416, 2420, 2422, 2427, 2428, 2430-2436, 2438, 2441, 2442, 2444, 2832, 3616-3618, 3620, 3628, 4016

P: 65, 127, 261, 400

E: 194, 196, 199, 202, 785, 986-988, 996(review), 997, 1000(review), 1002, 1423(review), 1669, 1712, 2394-2397

Opium alkaloids

C: 815, 830, 840, 885, 909, 1695, 1696, 1702, 1898, 2892, 2902, 2909, 4053, 4063

G: 275

P: 83, 84

E: 829, 944, 1428

Organoleptics (flavors, volatiles, odours)

C: 752, 2024, 2025

G: 204, 225, 243, 249, 250, 284, 403-411, 430, 442, 680, 702, 720, 729, 796, 857, 859-862, 868, 1100, 1150, 1156, 1163, 1200, 1317, 1319-1327, 1368, 1378, 1428, 1557, 1744-1751, 1753-1758, 1765, 1799

E: 1512(review)

Organometallic compounds, reviews and books

C: 1741

G: 968

— (other)

C: 1172, 1733, 2053, 2055, 2077, 3369, 3370, 3480, 4087

G: 294, 737, 741, 742, 771, 968, 1205, 1207, 1211, 1379, 1484, 1649

P: 323, 386

*see also* Coordination compounds; Porphyrins and metalloporphyrins; Tin, organic; Ferrocenes

Oxazoles

G: 1318

Oxidoreductases, acting on the C-OH group of donors (E.C. 1.1.-.-)

C: 513, 523, 524, 1577, 1581, 1583, 1585, 1586, 1593, 1669, 2784, 2793, 3922, 3927, 3934, 3938, 3941-3943, 3967

E: 468, 474, 1246, 2692, 2695, 2698, 2704

—, acting on aldehyde or keto group of donors (E.C. 1.2.-.-)

C: 1574, 1579, 1580, 1584, 1585, 1670, 2782, 2794, 3937

E: 477, 1929, 2701

—, —, structural studies

C: 1468

—, acting on CH-CH group of donors (E.C. 1.3.-.-)

C: 1576, 1580, 2787, 2791, 3924, 3943

E: 2699

—, acting on CH-NH<sub>2</sub> group of donors (E.C. 1.4.-.-)

C: 522, 1590, 2790, 2795, 3919, 3936

E: 468

—, —, structural studies

C: 2662

—, acting on CH-NH group of donors (E.C. 1.5.-.-)

C: 3928

—, acting on reduced NAD or NADP as donor (E.C. 1.6.-.-)

C: 1578, 1592, 1595, 3923, 3933

E: 1245, 2689, 2700, 2706

—, acting on other nitrogenous compounds as donor (E.C. 1.7.-.-)

C: 3925

—, acting on the sulphur group of donors (E.C. 1.8.-.-)

C: 521, 1575, 2780

- Oxidoreductases, acting on a haem group of donors (E.C. 1.9.-.-)
- C: 529
  - E: 475, 476, 2690, 2697, 2702
- , acting on H<sub>2</sub>O<sub>2</sub> as acceptors (E.C. 1.11.-.-)
- C: 518, 528, 530, 1594, 1597, 2792, 2796, 3921, 3951
  - E: 471, 1146, 2691, 2703, 2705
- , —, structural studies
- C: 415
- , acting on single donors with incorporation of oxygen (oxygenases) (E.C. 1.13.-.-)
- C: 3926, 3929, 3939, 3940, 3944
- , acting on paired donors with incorporation of oxygen into one donor (hydroxylases) (E.C. 1.14.-.-)
- C: 512, 514-517, 519, 520, 525, 526, 1582, 1586-1588, 1591, 1598, 2781, 2783, 2785, 2786, 2788, 2797, 2798, 2857, 3151, 3918, 3920, 3929, 3930, 3932, 3935, 3984
  - E: 469, 470, 472, 1244, 1932, 2443, 2693, 2694, 2705, 2707
- , —, structural studies
- C: 3790
- , acting on superoxide radicals as acceptor (E.C. 1.15.-.-)
- C: 1589, 3945
- , —, structural studies
- C: 1465, 3802
- , other and uncompletely identified oxidoreductases (E.C. 1.99.-.-)
- C: 527, 3931
  - E: 1930, 2705
- , activity measurements
- C: 1449
  - E: 2705
- Oxo compounds, reviews and books
- C: 211
  - E: 1552
- , general techniques
- C: 144, 213, 215, 1129, 2053, 2408, 3603, 3604
  - G: 1321, 1550, 1559
  - P: 126
  - E: 2393
- , aliphatic aldehydes and ketones
- C: 214, 217, 1203, 1206, 2403, 2404, 2408-2411, 2413, 2414, 3602, 3609, 3681
  - G: 186, 188, 190, 380, 418, 640, 642, 643, 1003, 1074, 1095, 1100, 1417, 1552, 1553, 1556, 1558
  - P: 31, 258, 397
  - E: 983, 1666, 1706
- , cyclic aldehydes and ketones
- C: 117, 216, 1049, 1205, 2182, 2408, 3283, 3605
  - G: 635, 636, 638, 1148, 1555
  - P: 226
  - E: 151
- Oxygen
- C: 989, 990
  - G: 446, 522, 1380, 1435, 1444
  - E: 1551
- P**
- Panthenic acid and coenzyme A
- C: 2962
- G: 648
  - E: 1439, 3030
- Papaveraceae alkaloids (excluding opium alkaloids)
- P: 371
  - E: 1430
- Penicillins (including carbapenem antibiotics)
- C: 71, 682, 687, 692, 696, 1795, 1773, 1789, 1799, 2197, 2969, 2979, 3001, 3008-3010, 4119, 4125, 4127, 4131, 4154, 4157-4159, 4170(review), 4173, 4176
  - P: 326, 334, 336
  - E: 739, 745, 1445, 1446, 1448, 1449, 2140, 2141, 3031
- Peptide (and amino acid) antibiotics
- C: 688, 698, 699, 704, 905, 1455, 1770, 1772, 1775, 1783, 1797, 2981, 2983, 2986, 2991, 3005, 3011, 4122, 4123, 4139, 4160, 4172
  - P: 333, 337
  - E: 741, 3032
- Peptides
- C: 369-404, 1405-1461, 2514-2655, 3753-3789
  - G: 270, 271
  - P: 171-175, 306, 429
  - E: 261-274, 1052-1074, 1773-1791, 2448-2464
- , reviews and books
- C: 400, 1135, 1413, 1419, 1421, 1430, 1432, 1441, 1446, 1451, 1452, 1460, 2632, 2862, 3412
  - E: 89, 255, 268, 270, 274, 285, 312, 877, 1056, 1283, 1552, 1807, 2480
- , techniques
- C: 163, 359, 367, 370, 371, 376, 382, 384, 388, 390, 391, 395, 399, 1134, 1406, 1410, 1417, 1418, 1422, 1424, 1427, 1428, 1433, 1435-1440, 1442, 1444, 1447, 1449, 1453, 1851, 2159, 2581, 2615, 2616, 2620, 2622, 2623, 2626, 2628, 2637, 2638, 2645-2647, 2649-2651, 2654, 3481, 3658, 3751-3753, 3756, 3760, 3761, 3764, 3767, 3771, 3772, 3774, 3776, 3784, 3786, 3788, 3789
  - P: 173, 175, 303
  - E: 60, 71, 87, 171, 174, 262, 264, 280, 736, 808, 899, 1006, 1052-1054, 1058, 1062, 1068-1070, 1072, 1073, 1077, 1085, 1103, 1611, 1660, 1769, 1773, 1774, 1782, 1784, 1785, 1787, 1789, 1791, 1792, 2285, 2449, 2451, 2452, 2455, 2456, 2460-2464, 2483
- , applications, non-biological
- C: 378, 388, 389, 392-394, 397, 398, 404, 1408, 1412, 1429, 1443, 1448, 1450, 1455-1457, 1497, 2621, 2629, 2643, 2644, 3067, 3628, 3780, 3783
  - G: 271
  - E: 265, 271, 273, 1057, 1064, 1067, 1790, 2880
- , —, microorganisms
- C: 396, 1492, 2619, 3749, 3768, 3778, 3860, 3973
- , —, plants
- C: 1409, 1411, 2636, 3766
  - E: 2453, 2454
- , —, animal material
- C: 369, 375, 394, 1415, 1423, 1425, 1431, 1434, 1435, 1445, 1459, 1461, 2281, 2596, 2618, 2627, 2631, 2633, 2635, 2639, 2641, 2652, 2655, 2726, 2857, 3273, 3758, 3759, 3762, 3763, 3769, 3773, 3775, 3785, 3829, 3860
  - G: 270, 1622
  - P: 171, 172, 306, 429
  - E: 267, 1055, 1059, 1060, 1063, 1071, 1776, 1779, 1780, 1889,

- 2211, 2450, 2457, 2458  
 see also Hormones peptidic and proteinous; Pituitary hormones and proteins; individual types of peptide hormones
- Peptides, applications, food products  
 E: 2224
- Peroxides  
 C: 301, 899, 2402, 2405, 2407, 2495, 2530, 2531  
 G: 227, 228, 255, 1584  
 E: 222, 2420
- Pesticides  
 C: 706-738, 1800-1826, 3012-3048, 4180-4195  
 G: 306-351, 750-783, 1219-1265, 1661-1685  
 P: 66, 67, 199-202, 338-340, 443, 444  
 E: 746-749, 1450-1460, 2142-2144, 3033
- , reviews and books  
 C: 1803, 2026, 3013, 3017  
 G: 313  
 E: 1450
- , techniques and complex mixtures  
 C: 706-712, 721, 730, 930, 939, 940, 1800-1802, 1804-1811, 1997, 2030, 2031, 2298, 3012, 3014-3016, 3018, 4180, 4181  
 G: 89, 307, 308, 310-312, 314-319, 750-753, 755-758, 760, 761, 763, 988, 995, 1219-1224, 1342, 1661, 1662, 1664, 1665, 1679  
 P: 338, 339, 443  
 E: 746, 1451-1453, 1677, 2142
- , carbamates  
 C: 720, 721, 730, 1818, 1819, 3027-3031, 4076, 4182-4184  
 G: 1248, 1676  
 E: 1454
- , chlorinated  
 C: 713-716, 1346, 1813-1815, 3019-3025  
 G: 136, 322-328, 610, 764-767, 1225-1235, 1237, 1238, 1240-1244, 1256, 1666-1672  
 E: 185
- , phosphorus  
 C: 717-719, 1816, 1817, 3026  
 G: 306, 329-337, 769, 770, 772, 773, 1225, 1244-1247, 1673-1675  
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 E: 747, 2143
- Petroleum hydrocarbons, see Mineral oils, hydrocarbons in
- Pharmaceutical applications  
 C: 766-921, 1850-2009, 3076-3272, 4218-4381  
 G: 358-396, 799-849, 1276-1311, 1694-1740  
 P: 68-91, 204-229, 345-374, 448-458  
 E: 756-794, 1464-1502, 2152-2209, 3039-3064
- , reviews and books  
 C: 11, 431, 772, 775, 778, 780, 782, 784, 1146, 1850, 1855, 1858, 1861, 2276, 3078, 3081, 3083, 3087, 3088, 3442, 4224, 4256, 4276, 4291  
 G: 1277  
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 E: 89, 165, 293, 756, 759, 761, 763-765, 795, 796, 805, 1464, 1467, 1471, 1473, 1609, 1674, 2157-2161
- , synthetic drugs, general techniques  
 C: 24, 79, 124, 148, 155, 282, 766-771, 773, 774, 776, 777, 779, 783, 785, 786, 1027, 1090, 1145, 1147, 1148, 1851-1854, 1856, 1857, 1859, 1860, 1862, 2275, 2302, 2306, 2413, 3076, 3077, 3079, 3080, 3082, 3084-3086, 3090-3092, 3112, 3167, 3437, 3462, 3493, 3494, 3529, 4219-4222, 4225-4228  
 G: 371, 801, 802, 811, 887, 1217, 1276, 1278, 1279, 1694, 1696  
 P: 50, 68, 70, 107, 213  
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- Pharmaceutical applications, systematic analysis and screening programs  
 C: 3080, 3086, 4225, 4357  
 E: 1469
- , complex mixtures  
 C: 3076, 3077, 3089, 3222, 4218, 4223  
 G: 800, 1611, 1735  
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- , auxiliary compounds (excipients)  
 C: 2479  
 G: 807, 886, 1299
- Pharmaceutical and cosmetic dyes  
 C: 739, 744
- Pharmacokinetic studies, see Drug monitoring and pharmacokinetic studies
- Phenazines  
 C: 4076
- Phenols, theory  
 C: 1107  
 G: 39, 623
- , techniques  
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 G: 16, 175  
 P: 104, 254  
 E: 124, 929, 1695, 1696, 2390, 2391
- , applications  
 C: 113, 134, 144, 182, 183, 185, 187, 190, 212, 1175-1177, 1179-1182, 1186, 1807, 1820, 2009, 2016(review), 2035, 2042, 2043, 2364, 2370-2376, 2378, 2384, 2400, 3281, 3569, 3606, 3612  
 G: 170-174, 176, 395, 440, 621, 622, 625-631, 706, 874, 1077-1079, 1081, 1082, 1332, 1365, 1523, 1534, 1538, 1539  
 P: 119, 243, 255, 377, 388, 389, 398  
 E: 158, 186-188, 977-979, 1515, 1697-1700, 1735, 2276, 2392
- Pheromones  
 G: 1097, 1553, 1784
- Phospholipids  
 C: 292, 295, 296, 1297, 1298, 1302, 1303, 2509, 2516, 2520, 2522-2524, 3638, 3676, 3677, 3683, 3686, 3689, 3690, 3693  
 P: 39, 42, 43, 46, 49, 136, 137, 139, 141, 149, 150, 274, 276, 277, 282, 285, 286, 289, 290, 409, 410  
 E: 1023, 1743  
 see also Sphingolipids
- Phosphorus compounds, inorganic  
 C: 975, 2105, 3403, 4103, 4436(review)  
 G: 454, 1385, 1386, 1452, 1582, 1803  
 P: 101  
 E: 842, 2256, 2258
- , organic, techniques  
 C: 4085(review)  
 G: 731  
 E: 729

## Phosphorus compounds, organic, applications

C: 391, 643, 646, 647, 904, 944, 1368, 1422, 1423, 1425, 1725-1730, 1733, 1987, 1992, 2001, 2246, 2421, 2523, 2612(review), 2702, 2727, 2867, 2919, 2924, 2939, 2953, 3517, 3638, 3686, 3690, 3693, 3728, 3773, 4086

G: 1644

P: 169, 171, 172, 305(review), 319, 320, 429, 438

E: 178, 728, 1055, 1059, 1877, 2127, 2128, 2200, 2441, 2457, 3027, 3028

see also Purines etc.; Phospholipids

## Pigments natural (and fluorescent substances)

C: 205, 743-747, 753, 1000, 1764, 1828, 2133, 2134, 2964, 3059, 3696, 4094, 4104, 4105, 4199, 4201-4204

G: 431, 784

P: 108, 331, 342, 447

E: 755, 1463, 1705, 2256, 3035

## Piperazines

C: 636, 3727

P: 318

E: 3118

## Pituitary hormones and proteins

C: 381, 385, 402, 1405, 3782

E: 266, 1783

## Plant extracts, reviews and books

C: 2008, 4373, 4379

G: 1277

## —, applications

C: 189, 210, 274, 317, 632, 781, 917, 918, 919(review), 920, 1175, 1177, 1184, 1186, 1189, 1197, 1981, 2002-2007, 2009, 2039, 2372, 2396, 2401, 2406, 2549, 2890, 2894, 2912, 3259-3272, 3536, 3570, 3573, 3599, 3633, 3666, 4054, 4366-4372, 4374-4378, 4380-4382, 4391

G: 277, 395, 688, 849

P: 35, 54, 70, 85-91, 119, 120, 121, 123, 129, 183, 214, 218-229, 263, 331, 366-368, 369(review), 370-374, 390, 396, 402, 403, 457, 458

E: 250, 984, 1021, 1428, 1467(review), 1501, 1502, 1697, 1699, 2204-2209, 2433, 3022

## Plasticizers, stabilizers (including other additives)

C: 2038, 4213, 4398

G: 791, 1356, 1376, 1781, 1782

## Plastics and other synthetic polymers (including intermediates)

C: 754-765, 1831-1849, 3061-3075, 4206-4217

G: 1686-1693

P: 203, 343, 344

E: 2150, 2151, 3038

## —, reviews and books

C: 1844, 3069, 3071, 3072, 4209

## —, techniques and theory

C: 16, 31, 166, 754, 755, 757-760, 762, 763, 765, 1039, 1831-1837, 1839, 1845, 1846, 2164, 2336, 2344, 3064, 3066, 3068, 3070, 3075, 3436, 3438, 3446, 3463, 4206, 4207, 4210, 4212, 4214, 4215, 4217

G: 785, 1266

P: 203, 344

E: 2151, 2258, 3038

see also individual types of plastics

## Platinum metals and gold

C: 958, 3307, 3336, 3337, 4319

P: 96, 234, 379

E: 827, 1539, 2243, 2244

## Polyamides, polyimides and their intermediates

C: 1841, 4318

G: 1268

## Polyamines, see Amines, polyamines and their derivatives

## Polyene antibiotics

C: 694, 1767, 1769, 1778, 4151

## Polyether antibiotics

C: 683, 2971

P: 440

## Polyethers

C: 2154, 3065, 4211

G: 789

E: 1565

## Polynucleotides, see Oligo- and polynucleotides

## Polyolefins

C: 59, 1833, 1847, 4216

G: 353, 486, 786, 790, 796

## Polyoxyethylene and related polymers (inclusive pyrolysis products)

G: 486, 1690, 1783

P: 343

## Polysaccharides and their constituents

C: 249(review), 251, 252, 1237, 1241-1244, 1248, 2164, 2326(review), 2447, 2448, 2452, 2458, 2460(review), 2461, 2462, 3632, 3633, 3638, 3640, 3641, 3643

G: 663

P: 402-404

E: 208, 209, 999, 1001, 1716, 1718

see also Starch components

## —, structural studies

C: 1248, 2446, 2452, 2454, 3637

G: 1418, 1566

P: 260

E: 1739

## Polyurethanes, see Urethanes and polyurethanes

## Polyvinyl alcohol

C: 1843

## Porphyrins and metalloporphyrins

C: 633(book), 634, 651, 969, 1167(review), 2914, 4068(review)

G: 748

P: 184, 317

E: 2121-2123, 2306

## Potassium, see Alkali metals

## Pregnane derivatives, techniques

C: 302, 304, 305, 1312, 1313, 1315, 2537, 2541, 3698

E: 242, 2336

## —, applications, non-biological

C: 777, 868, 1316, 1318, 2534, 2537, 2987

G: 1600

P: 417

## —, biological

C: 303, 306, 307, 1313, 1320, 1321, 2535, 2536, 2538, 2539, 2542, 3697, 3698

G: 679, 1138, 1601

P: 292, 418, 419

E: 242, 243, 1755

## Propellants

G: 881, 892



## Prostaglandins and thromboxanes

C: 285, 286, 1288-1290, 2501, 2502, 2782, 3675

G: 214, 215, 670, 671, 1130, 1592

P: 266

E: 1742

## Protamines, histones and other nuclear proteins (including chromatin proteins)

C: 476, 477, 1536, 1537, 1730, 3860

E: 388-392, 1179-1182, 1351, 1352, 1897, 1898, 1915, 2609-2611, 2659, 2879, 2899

## —, —, structural studies

C: 3798

## Proteins

C: 425-511, 1473-1573, 2680-2779, 3804-3915

P: 176, 307, 430

E: 285-463, 1081-1241, 1801-1928, 2473-2688

## —, —, reviews and books

C: 13, 89, 91, 96, 431, 433, 434, 437-439, 441, 450, 1473, 1480, 2690, 3412, 3809, 3811, 3832

E: 51, 86, 119, 255, 285, 288, 293-295, 297, 301-303, 305, 307-312, 353, 356, 360, 368, 396, 402, 407, 795, 906, 935, 940, 1086, 1099, 1101, 1201, 1226, 1227, 1229, 1633, 1803, 1804, 1807, 1814, 1822, 1823, 2265, 2268, 2473, 2478, 2480, 2488, 2490

## —, —, general techniques

C: 88, 122, 425-430, 432, 435, 436, 440, 442, 443, 497, 545, 1014, 1023, 1066, 1071, 1079, 1091, 1105, 1110, 1122, 1134, 1137, 1442, 1474-1479, 1481-1486, 2250, 2251, 2253, 2291, 2293, 2327, 2328, 2656, 2661, 2680-2689, 2691-2704, 2735, 2738, 2758, 3457, 3461, 3477, 3484, 3538, 3544, 3804-3808, 3810, 3812-3825, 4411

P: 176

E: 60, 76, 103, 105, 152, 286, 287, 289-292, 296, 298-300, 304, 306, 313-315, 519, 867, 876, 968, 969, 971, 1062, 1069, 1081-1085, 1087-1098, 1100, 1102, 1103, 1543, 1579, 1607, 1611, 1687, 1797, 1801, 1802, 1805, 1806, 1808-1813, 1815-1821, 1824, 1901, 1985, 2173, 2308, 2310, 2320, 2322, 2323, 2327, 2330, 2332, 2361, 2370, 2382, 2384, 2474-2477, 2479, 2481-2487, 2489, 2491-2493, 3095

see also Glycoproteins, lipoproteins

## —, —, sequence and structural studies

C: 163, 408(review), 416, 423, 439(review), 453, 1406, 1463, 1466, 1476, 2616, 2656, 2658, 2660, 2661, 2674-2676, 2678, 2682, 2687, 2690(review), 3273, 3792, 3794-3796, 3800, 3803, 3811(review), 3826, 3829

G: 1426

E: 276, 278, 280, 303(review), 331, 896, 1078, 1080, 1293(review), 1620(review), 1784, 1792-1794, 1796-1800, 1806, 1851, 2211, 2384, 2447, 2461, 2467, 2472(review), 2478(review)

see also structural studies on individual categories of proteins

## —, —, cells, subcellular particles and viruses (including ribosomal proteins)

C: 91(review), 444-449, 585, 1487-1491, 2705, 2706, 3821, 3827, 3828, 3839

E: 316-328, 330, 355, 522, 567, 970, 1104-1126, 1132, 1523, 1825-1846, 1992, 1998-2000, 2029, 2494-2535, 2536, 2562, 2580, 2635, 2654, 2663, 2786, 2804, 2858, 2980, 2984, 3086, 3094

## Proteins, cells, subcellular particles and viruses (including ribosomal proteins), structural studies

C: 412, 1489, 2673

E: 277, 329, 1829, 1841

## —, —, synthesized by gene manipulation

C: 60, 377, 418, 450(review), 451-453, 484, 545, 553, 1454, 1457, 1463, 1492-1496, 1510, 1511, 1522, 1563, 2529, 2707-2711, 2758, 3829, 3830, 3841

E: 331-339, 393, 473, 490, 496, 564, 1127, 1132, 1225, 1228, 1241, 1751, 1847-1849, 1876, 1901, 1922, 1929, 1962, 2096, 2470, 2482, 2500, 2501, 2524, 2536-2539, 2565, 2628, 2674, 2714, 2744, 2791, 2814

## —, —, microbial and plant proteins (including proteins of foods of plant origin)

C: 449, 454-457, 458(review), 505, 1418, 1492, 1497-1507, 1548, 1556, 2471, 2712-2720, 3821, 3831, 3832(review), 3833-3839, 3914

E: 330, 336, 339, 340-346, 347(review), 348-351, 393, 456, 497, 1084, 1095, 1106, 1133-1149, 1192, 1837, 1851-1867, 2000, 2051, 2100, 2405, 2549, 2541(review), 2542-2567, 2568(review), 2569-2571, 2720, 2814, 2840

## —, —, structural studies

G: 678

E: 282, 1138, 2469, 2558

## —, —, of blood serum and blood cells

C: 81, 104, 439(review), 459-471, 481, 494, 1064, 1490, 1508-1511, 1513, 1515-1529, 1530(review), 1531, 1547, 1572, 1991, 2193, 2256, 2655, 2708, 2710, 2721-2741, 2754, 2756, 2777, 2779, 3274, 3312, 3508, 3761, 3840-3856, 3865, 3866-3868, 3870, 3874, 4084

P: 307, 430

E: 78, 135, 139, 210, 239, 303(review), 338, 352, 353(review), 354, 355, 356(review), 357-359, 360(review), 361-367, 368(review), 369-373, 401, 867, 1089, 1150-1167, 1183, 1187, 1214, 1623, 1745, 1753, 1776, 1868-1883, 1884(review), 1885-1887, 1899, 2326, 2401, 2406, 2426, 2427, 2572-2592, 2612, 2624, 2662, 2665, 2766, 2869, 3072

see also Lipoproteins; Chromoproteins and metalloproteins; Specific binding proteins (receptors)

## —, —, structural studies

C: 406, 417, 419, 439(review), 471, 1512, 1514, 2727, 3791

E: 210, 279, 283, 284(review), 303(review), 1075, 1160, 1877, 2465

## —, —, structural proteins (except contractile elements)

C: 473, 1534, 2743

E: 326, 377-380, 382, 383, 386, 1168, 1172, 1173, 1232, 1891, 1895, 2529, 2596, 2600, 2603-2605, 2608

## —, —, structural studies

C: 420, 475, 1466, 2749

E: 1076, 2468

## —, —, of brain, nerves, cerebrospinal fluid and eye

C: 439(review), 1557, 2766-2768, 3889, 3890

E: 303(review), 409-416, 1200, 1201(review), 1202-1212, 1848, 1907-1912, 1924, 1948, 2501, 2510, 2633-2639

## —, —, structural studies

C: 1470, 2679

For eye pigments see Pigments natural (and fluorescent substances)

Proteins, of muscle and meat products (including related contractile proteins)

- C: 472, 1488, 1496, 1532, 1533, 1535, 2742, 2754, 3857-3859  
 E: 61, 374-376, 381, 384, 385, 387, 528, 1108, 1131, 1169-1171, 1174-1178, 1888-1890, 1892-1894, 1896, 2536, 2593-2595, 2597-2599, 2601, 2602, 2606, 2607
- , —, structural studies  
 C: 474  
 E: 1178
- , of glands and gland products (except mammary gland), various zymogens  
 C: 421, 489, 492, 1552, 1554, 1556, 2760, 2762, 2763, 3876, 3879, 3882, 3891  
 E: 325, 332, 403, 404, 408, 463, 1113, 1193, 1198, 1213, 1302, 1902, 2507, 2627, 2629, 2630, 2648, 2657
- , —, structural studies  
 C: 421
- , of milk  
 C: 428, 488, 490, 1551, 1553, 2757-2759, 3875, 3881, 3885  
 E: 406, 407(review), 1195, 1196, 1199, 1900, 1901, 1903, 1904, 2631, 2632
- , —, structural studies  
 C: 2663
- , of eggs  
 C: 2764, 2778  
 E: 455, 1928, 2526
- , urinary  
 C: 421  
 E: 408, 450-453, 1233, 1924, 2590, 2661, 2676, 2677, 2678(review), 2679
- , —, structural studies  
 C: 421  
 E: 408
- , from neoplastic tissue  
 C: 493-495, 3891  
 E: 417-422, 448, 1213-1219, 1913, 1914, 2627, 2640-2647
- , —, structural studies  
 C: 422, 2671
- , complex mixtures and uncompletely specified proteins  
 C: 510, 1570, 1572, 1573, 3910-3912, 3914  
 E: 457, 460, 462, 998, 1089, 1236, 1238-1241, 2604, 2630, 2680, 2682, 2687
- , —, structural studies  
 C: 2665  
 G: 1359
- Protoberberine alkaloids  
 G: 1178
- Psychostimulants  
 C: 326, 822, 839, 1697, 1911, 2908, 3143, 3164, 3165, 3168, 4228, 4259, 4275(review), 4364  
 G: 367, 373, 384-386, 389, 809, 814, 845, 1289, 1290, 1720  
 P: 434  
 E: 778, 779, 1041, 1483, 1489, 1492, 2186, 3049(review)
- Purine alkaloids (xanthines)  
 C: 73, 630, 1697, 1716, 2891, 2893, 2896, 2899-2901, 2903, 2905, 3171, 3283, 4056-4058, 4062, 4064-4067  
 P: 59, 179-182, 313, 316  
 E: 1429, 1689, 2223

Purines, pyrimidines, nucleotides, nucleosides

- C: 603-619, 1671-1683, 2859-2879, 4031-4042  
 G: 272, 273, 1178-1183, 1631, 1632  
 P: 58, 177, 309-311, 432  
 E: 542-559, 1283-1295, 1970-1984, 2780-2787
- , reviews  
 C: 1674  
 E: 805
- , techniques  
 C: 95, 612, 1671, 1678, 1680, 1683, 1729, 1749, 2228, 2272, 2861, 2869, 2879, 3510, 4033, 4035-4038, 4040, 4042  
 G: 273, 1180, 1633  
 E: 79, 549, 556, 907, 1286, 1288, 1289, 1295, 1599, 1670, 1735, 1972, 1973, 1975, 1981, 2361, 2484, 2787
- , analogues of purines, pyrimidines, nucleotides and nucleosides (fluoro ...)  
 C: 603, 604, 610, 613, 614, 617, 872, 1672, 1673, 1675, 1680, 1681, 1691(review), 1716, 1770, 1960, 1964, 1965, 2001, 2859, 2860, 2866, 2873-2875, 3218, 3510, 4032, 4034, 4035, 4038, 4041, 4336, 4345  
 G: 748, 1631  
 P: 58, 311  
 E: 542, 546(review), 547, 549, 552, 557, 1294, 1366(review), 2333, 3053, 3061
- , applications, non-biological  
 C: 606-608, 620, 2867, 2871, 2876, 3284  
 G: 1181  
 P: 432  
 E: 642, 1290, 1291, 1983
- , —, enzymic  
 C: 619, 2868, 2878  
 P: 309  
 E: 1978
- , —, microorganisms  
 C: 609  
 P: 310  
 E: 1978, 1979, 1984
- , —, plants  
 C: 1676, 2864, 4031, 4367  
 G: 1183, 1632  
 P: 177
- , —, animal material  
 C: 1671, 1679, 1686, 2866, 2870, 2872  
 G: 1182  
 E: 610, 1284, 1285, 1971
- , —, food products  
 C: 2875, 4039  
 G: 272
- Pyrane derivatives  
 C: 3299
- Pyrazines  
 C: 1719  
 G: 726, 1195  
 see also Diazines
- Pyrazoles  
 G: 1196
- Pyrethrins (and other natural insecticides)  
 C: 737, 1812, 1826, 3043  
 G: 340, 342, 344, 436, 781, 1229, 1252-1254, 1260  
 P: 67

## Pyridine and piperidine derivatives

C: 109, 1356, 1710-1712, 2917, 3247, 3709, 4073, 4074

G: 279

P: 185, 186, 437

E: 1042, 1735

## —, carboxylic acids

E: 960

see also Nicotinic acid and derivatives

Pyridoxine, see Vitamins, B<sub>6</sub> group

## Pyrimidines, see Purines, pyrimidines, nucleosides, nucleotides

## γ-Pyrone derivatives, see Flavonoids and γ-pyrone derivatives

## Pyrroles, pyrrolidines and pyrrolidones

C: 1704, 4074

G: 478, 727, 1408

P: 317, 437

see also Bile pigments; Porphyrins and metalloporphyrins

## Pyrrolizidine and pyrrolizide alkaloids

C: 1701, 2904

G: 883, 1188, 1636

## Q

## Quinoline and isoquinoline alkaloids

C: 628, 629, 1779, 2897, 2910, 2913, 4054, 4055

G: 1190

P: 178, 314

E: 2118, 3021

## Quinolines and isoquinolines

C: 637, 640, 858, 1140, 1718, 3180, 3213, 3220

G: 722, 725, 874, 1194

E: 725

## Quinolizidine alkaloids

C: 2379

G: 722

E: 719, 1495

## Quinones

C: 210, 1204, 1207, 3606, 3608

G: 727, 1555

P: 398

## R

## Radioactive and other isotope compounds

C: 364, 957, 965, 991, 2071, 2073, 2121, 2122, 2196, 3306, 3321, 3322, 3338, 3341, 3354, 3356, 3364, 3375, 3378, 3406, 4091, 4415, 4416, 4420, 4425, 4441, 4442(review), 4443, 4444

P: 74, 239, 240, 380

E: 844, 2438, 3110, 3111

## Radiopharmaceuticals

P: 239

E: 787, 2198

## Radioprotective agents

C: 2918

## Rare earths

C: 2050, 2051, 2056, 2057, 2079, 2080, 2083, 3313, 3332, 3334, 3336, 3343, 3346, 4421, 4427

G: 531, 771

E: 1544, 2131, 2245, 2246, 3100, 3114

## Rauwolfia alkaloids

C: 632, 2895

E: 721

## Repellents, see Larvicides, insecticides

## Resins, alkyl

G: 1374

## —, phenolic

G: 355, 798

## —, polyester

C: 761, 1837, 1840

G: 788, 1376, 1691, 1692

## —, polyethylene and polypropylene glycols

C: 997, 1039, 3063, 3065, 3067, 3073, 3074, 4208

E: 2150

## —, poly(vinyl acetate)

G: 790, 1433

## —, poly(vinyl chloride)

G: 637, 1691

see also Acrylic resins; Epoxy resins; Polyolefins; Rubber (natural and synthetic); Styrene polymers

## RNA, reviews

E: 1309

## —, techniques

E: 37, 562, 565, 571, 574, 577-579, 886, 1985, 1987, 1989, 1995, 2001

—, applications, non-biological applications (*in vitro* processing)

C: 1688, 2880, 4043, 4049

E: 240, 325, 484, 560, 564, 566, 567, 569, 570, 572, 575, 580, 582, 586, 614, 1296-1300, 1302, 1303, 1351, 1421, 1988, 1991-1994, 1996, 1997, 1999, 2000, 2002, 2003, 2510, 2523, 2531, 2685, 2714, 2788-2791, 2793, 2795-2797, 2799, 2801, 2802, 2804-2807, 2809, 2811-2818, 2821-2929, 2832-2837, 2839, 2840, 2842-2854, 2857-2863, 2865, 2867-2875, 2877-2879, 2882, 2903, 2915, 2926, 2928, 2936, 2982, 2984, 2988, 2993, 3016

## —, —, microorganisms

C: 4044, 4045

E: 563, 1311, 1990, 2000, 2551, 2724, 2790, 2795, 2814, 2861

## —, —, plants

E: 561, 1305, 1332, 1339, 2831, 2853

## —, —, animal material

C: 1684-1686

E: 239, 317, 322, 470, 471, 493, 568, 573, 576, 581, 583-585, 634, 1181, 1299, 1301, 1304, 1306-1308, 1310, 1312, 1401, 1986, 1998, 2510, 2529, 2593, 2792, 2793, 2794, 2796, 2798, 2800, 2801, 2803, 2804, 2808, 2810, 2811, 2816, 2819, 2820, 2830, 2838, 2841, 2846, 2848, 2855, 2856, 2862-2864, 2866, 2868, 2876, 2895, 2980, 2993

## —, structural studies

C: 2880

P: 433

E: 634-640, 1362-1364, 1988, 2054-2056, 2066(review), 2110, 2484, 2818, 2837, 2899, 2939-2951

## Rodenticides

C: 738, 3045

G: 351

## Rubber natural and synthetic (inclusive pyrolysis products)

G: 873, 1269, 1270, 1274

Rubidium, *see* Alkali metals

## S

### Saponins and saponinins

C: 773, 3259, 3702, 4382

P: 158

E: 1501, 2433

Selenium compounds, inorganic, *see* Cations, inorganic, analytical group IIb

—, organic

C: 960, 1715, 2104, 3315, 3855

G: 198, 265, 321, 447

E: 1529, 3029

Sexual attractants, *see* Pheromones

Sialic acids, *see* Glycosaminoglycans

Silicium compounds, inorganic

C: 977

—, organic

C: 1735

G: 353, 744, 787, 1212, 1214, 1653, 1689

Silver, *see* Cations, inorganic, analytical group I and IIa

Snake venoms, *see* Venoms, snake

Sodium, *see* Alkali metal

Soil pollution

C: 708, 714, 722, 735, 736, 943, 992(review), 1806, 1822, 1825, 2117(review), 3019, 3023, 3034, 3040, 3290(review), 3376, 3396, 3401, 3406, 3558, 4191

G: 111, 133, 136, 141, 144, 153, 156, 256, 299, 327, 330, 332, 346, 427-429, 443, 581, 590, 599, 615, 645, 735, 738, 770, 783, 863, 866, 870, 871, 901, 1069, 1175, 1234, 1239, 1246, 1248, 1253, 1256, 1261, 1262, 1349-1352, 1505, 1510, 1521, 1538, 1539, 1545, 1571, 1618, 1638, 1645, 1652, 1777, 1778, 1788

P: 257

E: 1698, 2238, 2244, 2253, 2259, 3036, 3076

*see also* individual polluting compounds

Spasmolytics

C: 4249

G: 806, 808, 816, 1706

P: 450

Specific binding proteins (receptors)

C: 289, 452, 496-503, 924, 1467, 1520, 1531, 1539, 1558-1566, 1569, 2651, 2760, 2769-2776, 3879, 3892-3899, 3900(review), 3901-3906

E: 138(review), 334, 384, 420, 423-449, 532, 876, 1132, 1193, 1220(review), 1221-1226, 1227(review), 1228, 1229(review), 1230-1232, 1623, 1776, 1791, 1890, 1915-1923, 2115, 2402-2404, 2459, 2529, 2560, 2648-2675

—, structural studies

C: 409, 413, 422, 424, 1467, 1567, 1568, 2657

E: 275, 2484

Sphingolipids (sulfatides, gangliosides, ceramides, cerebrosides)

C: 287, 290, 1299, 1304, 1306, 2512, 2520, 3688, 3683, 3684

G: 226, 839

P: 38, 47, 48, 114, 136, 138, 149, 152, 153, 267, 271-273, 279-281, 287, 288, 406, 407, 411

E: 227, 1744

Stabilizers, *see* Plasticizers and stabilizers

Starch components

C: 240, 242, 2451

G: 891

*see also* Polysaccharides

Steroids

C: 302-314, 1311-1330, 2532-2546, 3696-3701

G: 229-237, 679-688, 1137-1147, 1599-1607

P: 50-52, 154-156, 291-293, 417-422

E: 241-243, 1034, 1035, 1754-1756, 2432

—, reviews and books

P: 50

E: 113, 764, 805

—, general techniques and theory

C: 302, 773, 1051, 1311, 1314, 2133, 2134, 2159, 2237, 2272, 2532, 3696

P: 13, 243, 278

E: 59, 241, 1570, 1635, 1657, 1754

*see also* Androstane derivatives; Oestrogens; Pregnane derivatives; Sterols

Sterols, techniques

C: 1325, 1327, 2544, 3242, 3696

G: 229, 231, 237, 684, 1605, 1607

P: 155

—, applications, non-biological

C: 310, 2545

G: 1143

P: 154

—, —, biological

C: 309, 311, 312, 1322-1324, 1326, 1327, 3699, 3700

G: 685, 686, 688, 1142, 1144-1146, 1185, 1315, 1603, 1604, 1606

P: 293

Stimulants, *see* Psychostimulants

Strontium, *see* Alkaline earths

Strychnine group

C: 2906, 2912

G: 1307

P: 315

Styrene polymers (inclusive pyrolysis products)

C: 118, 1029, 1836, 1840, 1848, 1849, 2185, 2188, 2279, 2336, 3062, 3064, 3463, 4217

G: 563, 792, 887, 1275, 1686, 1693

E: 2151

Subcellular particles

C: 1072, 4408, 4409

E: 1101(review), 1122, 1518, 2237(review), 2268, 3079, 3083-3085, 3087, 3089, 3094-3096

Sulphatides, *see* Sphingolipids

Sulphides (thioethers) and polysulphides

C: 4082

G: 285, 419, 1179, 1201, 1686

Sulphonamides

C: 854, 860, 867, 1940, 1945, 3088, 3191, 3178, 3185, 3187, 4218

G: 377, 835, 1295, 1296

P: 61, 209, 358

E: 87, 1494

## Sulphonate esters

G: 1352  
E: 726

## Sulphones

G: 1508, 1522, 1642  
P: 93

## Sulphonylamines

C: 3223

## Sulphoxides

C: 644  
G: 935

## Sulphur compounds, inorganic

C: 979, 986, 1094, 2099(review), 2378, 3388, 3389, 4082, 4383, 4430, 4432

G: 57, 452, 903, 1202, 1643, 1805

E: 1546, 1700, 2253, 3115, 3118

## —, organic, techniques

C: 643, 1722, 1723, 2092, 2921, 2922, 4080, 4082, 4083, 4090

G: 57, 288, 290

P: 61, 202

E: 201, 727, 1432, 3115

## —, —, acids and derivatives

C: 645, 1724, 1728, 2923, 3224, 3295, 4083

G: 198, 1569, 1750

P: 189

E: 1591, 1676, 2125, 2126, 2228, 3026

see also Heterocyclics, sulphur

## Sulphur oxides

C: 2119, 3391

E: 3116

## Sunburn preventives

C: 884

P: 81

## Surfactants, emulsifiers and detergents

C: 941, 945-947, 2033-2035, 2036(review), 2037, 2696, 3293-3296, 4395

G: 429, 430, 656, 799, 871, 1352, 1353, 1779, 1780

P: 231, 375, 376

E: 14, 84, 812-816, 1823(review), 2226-2228, 3077, 3078

## Suspensions, various

C: 31, 621, 622, 953, 2329, 2334, 2340, 2342, 3305, 3506, 3638, 4396, 4406-4411

E: 590, 819, 1121, 1520, 1521, 1523-1525, 1571, 3079, 3080, 3082, 3088, 3091, 3093

## Sweeteners, artificial

C: 908

E: 808

## Sympathomimetics, see Adrenergic and adrenergic blocking agents

## T

## Tannins

C: 1175, 1180, 1199, 1202, 2396-2398, 4367

E: 977, 2223

## Tantalum, see Cations, inorganic analytical group III

## Technetium, see Cations, inorganic, analytical group IIb

## Tellurium, see Cations, inorganic, analytical group IIb

## Terpenes

C: 317-320, 1332-1341, 2547-2550, 3703-3706

G: 238-253, 689-702, 1148-1167, 1608-1614

P: 54, 157-163, 294, 424

E: 1036

## —, general techniques

C: 773, 1129, 1311, 1334

G: 241, 691, 1148, 1609, 1610

P: 54

## —, applications

C: 206, 317, 318, 320, 1332, 1333, 1335-1340, 2009, 2547, 2549, 2550, 3279(review), 3703-3706

G: 238, 240, 689, 690, 692, 694, 1149, 1611, 1612

P: 157, 158, 160-162, 293, 294, 366, 424

E: 1036, 2192, 3057

## —, acids

C: 319, 2500

G: 199, 242

## —, alcohols

C: 2548, 3699

G: 239, 395, 693, 1142, 1167, 1311, 1608

P: 159, 293

## —, resins

G: 199, 688, 1160

## Tetracyclines

C: 680, 689, 700, 777, 861, 2975, 2992, 3000, 3006, 4121, 4124, 4128, 4144, 4153, 4156, 4164(review)

E: 742, 744, 2137

## Teetrazoles

C: 4075

## Thallium, see Cations, inorganic, analytical group I and IIa

Thiamine, see Vitamins, B<sub>1</sub>

## Thiazoles, isothiazoles and thiazolones

C: 1721

## Thiocarbamates

E: 1648

## Thiols

C: 321, 1383, 1722, 2595, 2603, 4081, 4084

G: 720, 728, 729, 1325

## Thiophenes

C: 1140, 1722

G: 137, 286, 289, 1186, 1199, 1420, 1641

## Thiophosphates

P: 438

## Thiosemicarbazones and thiosemicarbazides

P: 435

## Thioureas

C: 733

## Thorium, see Cations, inorganic, analytical group III

## Thyrostatics

G: 841

## Tin, inorganic, see Cations, inorganic, analytical group III

## —, organic

C: 648(review), 1734, 2925, 4089, 4090

G: 297, 299, 309, 734, 735, 738, 740, 741, 754, 762, 1203, 1205, 1208-1210, 1645, 1646, 1648, 1652, 1663

P: 321

- E: 730
- Titanium, *see* Cations, inorganic, analytical group III
- Toad venoms, *see* Venoms, other
- Tobacco alkaloids
- C: 1694, 1699, 2907, 4061
- G: 1191
- E: 1424, 1425
- Tocopherols, *see* Vitamins, E
- Toxicological (and forensic) analysis, reviews and books
- C: 914, 3512, 4265, 4275(review), 4354, 4356, 4359-4362, 4364, 4365, 4392
- G: 910, 1697, 1699-1702, 1704, 1714, 1720, 1722
- P: 451, 453, 456
- E: 791, 805, 1467, 1503, 3047, 3049, 3063, 3064
- , general techniques
- C: 916
- G: 842, 1306, 1308, 1533, 1737
- P: 216
- E: 789, 1631, 2203, 2937
- , applications
- C: 172, 342, 827, 909-913, 915, 1174, 1314, 1320, 1717, 1906, 1991-2001, 2747, 3164, 3165, 3247, 3248, 3252-3255, 3774, 3871, 4074, 4353, 4355, 4357, 4358, 4363
- G: 165, 269, 278, 347, 365, 381, 382, 385-388, 390, 392, 434, 609, 773, 781, 806, 825, 828, 844-848, 884, 897, 1075, 1080, 1099, 1137, 1283, 1300, 1304, 1305, 1307, 1439, 1569, 1585, 1721, 1736, 1739, 1740
- P: 82-84, 185, 365
- E: 246, 405, 667, 680, 688, 753, 782, 790, 792-794, 829, 1016, 1041, 1371, 1375, 1388, 1395, 1398-1400, 1425, 1426, 1462, 1489, 1491, 1497-1500, 1534, 2142, 2146, 2201, 3052, 3060, 3062, 3111, 3122
- see also* Proteins of blood, serum and blood cells
- Toxins (non-proteinous or unidentified)
- C: 911, 1995, 1999, 2498, 3248-3251, 3254, 3256, 3258, 3302(review), 3632, 4355, 4399
- G: 633, 723, 1184
- E: 788, 790, 1510, 2199, 2202, 3061
- see also* Aflatoxins; Mycotoxins
- , proteinous
- C: 383, 491, 1497, 2617, 2653, 2712, 2713, 2715, 2717-2719, 3774
- P: 174
- E: 405, 1852, 1857, 1862
- see also* Proteins of glands and gland products; Venoms; individual enzyme types
- , —, structural studies
- C: 411, 1416
- G: 1102
- Tranquilizers (anxiolytics)
- C: 149, 796, 818, 824, 829, 833, 1907, 1917, 1919, 1922, 1923, 1925, 1928, 1929, 3141, 3142, 3148, 3172, 4265(review), 4280-4282, 4364(review)
- G: 362, 365, 366, 381, 815, 824, 826, 1495, 1714, 1724, 1726
- P: 77, 82, 107, 354-356, 451, 454, 455
- E: 108, 777, 3047(review)
- Transferases, transferring one atom groups (methyl-, hydroxy-, formyl-, carbonyl-, carbamoyl-, amidine) and related transferases (E.C. 2.1.-.-)
- C: 534, 543, 1602, 1603, 2802, 3957
- E: 484, 582
- , —, structural studies
- C: 2667
- , transferring aldehyde or ketonic residues (E.C.2.2.-.-)
- C: 2855
- E: 483
- , transferring acyl-and aminoacyl groups (E.C. 2.3.-.-)
- C: 533, 535, 1600, 1669, 3948
- P: 431
- E: 478, 480, 1249, 1933, 2710, 2714
- , transferring glycosyl residues (hexosyl and pentosyl transferases) (E.C. 2.4.-.-)
- C: 531, 533, 536, 538, 539, 544, 546, 1599, 1604, 1605, 1608, 2105, 2799, 2803, 2805, 2806, 3941
- E: 481, 1248, 1934, 2711, 2963
- , transferring alkyl or aryl groups (E.C. 2.5.-.-)
- C: 532, 537, 540, 541, 1601, 1606, 1607, 2804, 2807, 3946, 3947, 3949-3951, 3954-3956
- E: 479, 1247, 2611, 2715
- , transferring nitrogenous groups (E.C. 2.6.-.-)
- E: 2709
- , transferring phosphorus containing groups (E.C. 2.7.-.-)
- C: 547-553, 1574, 1609-1623, 1670, 2808-2815, 3882, 3959-3967, 4044
- E: 179, 485-499, 1251-1263, 1936-1941, 2522, 2653, 2716-2731, 2850
- , —, structural studies
- C: 2670
- E: 281, 1079, 1250, 1941
- , transferring sulphur containing groups (E.C. 2.8.-.-)
- C: 542, 545, 2800, 2801, 3952
- E: 1935, 2712, 2713
- , activity measurements
- C: 613, 2879, 3742, 3953
- E: 218, 542
- Triazines and triazanes
- C: 4078
- G: 1641
- E: 3024
- Tropine alkaloids
- C: 625, 627, 1700, 2908
- G: 1300
- E: 720, 2188
- Trypsin inhibitor (antitrypsin)
- C: 3907, 3909, 3913, 4001
- E: 1140, 1925, 1927
- Tuberculostatics
- C: 3179, 3215, 3229
- P: 186

Tungsten, *see* Cations, inorganic, analytical group IIb

## U

Uranium, *see* Actinides and uranium

Urea and urea derivatives

G: 29, 1171, 1250, 1739

*see also* Thiourea

Urethanes and polyurethanes (including pyrolysis products)

C: 756, 764, 1842

G: 797, 1272, 1692

Urea and urea derivatives

C: 1346, 1367, 2573, 2576, 3723

Uricosuric drugs

C: 1980, 3223, 4325

## V

Vanadium, *see* Cations, inorganic, analytical group IIb

Vasoconstrictors

C: 3127

Vasodilators (including coronar vasodilators)

C: 806, 807, 814, 1894, 3134, 4228, 4241

G: 360, 361, 705, 810, 1285, 1705-1707, 1712

E: 773

Venom, snake

C: 1550, 1555, 1656, 1657, 2653, 2761, 2765, 3877, 3878, 3880, 3883, 3886, 3887

E: 405, 1194, 1197, 1905, 2625, 2626, 2628

—, other

C: 3884, 3888

E: 337

*see also* Proteins, of glands and gland products; Toxins, proteinous; individual enzyme types

Vinca alkaloids

C: 2894

Vitamins (for vitamin protein complexes, *see* Specific binding proteins)

C: 652-679, 1743-1765, 2936-2967, 4092-4113

G: 1659

P: 63, 192, 193, 324, 325

E: 735-738, 1438-1441, 2133-2136, 3030

—, reviews and books

C: 1756, 1762, 2016, 3059

—, techniques for fat soluble vitamins

C: 653, 673, 675, 1747, 1763, 2946, 2957, 2961, 4112

G: 1216

E: 737, 2136

—, techniques for water soluble vitamins

C: 95, 653, 655, 2961, 4112

E: 2133

—, A group (including synthetic retinoids)

C: 654, 656, 657, 659, 660, 662, 664, 666, 674, 677-679, 743, 747, 1026, 1745, 1750, 1752, 1753, 1761, 1764, 1765, 2936, 2937, 2939, 2941, 2942, 2944, 2946, 2947, 2952, 2956, 2958, 2964, 4092-4096, 4098, 4101, 4104, 4107

G: 749, 1659

*see also* Pigments, natural (and fluorescent substances)

Vitamins, B<sub>1</sub>

C: 667, 777, 1743, 1749, 1751, 2948

E: 873, 2133

—, B<sub>2</sub> and other flavins

C: 777, 1743, 1754, 4099

P: 192

E: 2133

—, B<sub>3</sub> group

C: 777

E: 2133

—, B<sub>6</sub>

C: 777, 1743, 1744, 1748, 1758, 1759, 1762(review), 2948, 2963

E: 2133

—, B<sub>12</sub> group (Cobalmin)

C: 777, 1677, 2943, 4110, 4113

P: 63, 193, 325

E: 2135

—, biotin group

E: 738, 876, 1438

—, C group

C: 658, 663, 668, 671, 1746, 1756(review), 2950, 2951, 2953, 2954, 3113, 3285, 4100, 4102, 4103, 4106, 4109

G: 305, 746, 1215

P: 324

E: 735, 736, 1440, 2118, 2223

—, D group

C: 665, 669, 1755, 2946, 2949, 2959, 2960, 4108, 4111

G: 1146, 1315

P: 230

—, E

C: 652, 654, 656, 657, 661, 664, 666, 670, 1026, 1757, 1760, 1761, 2939, 2941, 2942, 2946, 2956, 2964-2967, 4095, 4096, 4101, 4105

G: 17, 1217

P: 230

—, K group

C: 2946

—, P

G: 1395, 1654

Volatiles, flavours, odours, *see* Organoleptics

## W

Warefare agents

C: 4400(review)

G: 292, 489, 491, 547, 730-733, 1213, 1656, 1657, 1775

Water

G: 905, 1389, 1390, 1806

Water analysis and pollution

C: 67, 134, 170, 178, 182, 184, 188, 686, 706, 708, 710, 714, 719, 723, 724, 727, 728, 735, 741, 936-942, 958, 962, 966, 967, 978, 987, 1046, 1278, 1352, 1800-1802, 1805, 1807-1809, 1816, 1817, 1822, 1825, 2023, 2030-2032, 2052, 2061, 2065, 2082, 2106, 2115, 2116, 2118, 2297-2299, 2348, 2349, 2356, 2370, 2371, 2412, 2480, 2483, 2487, 2819, 2925, 3032, 3033, 3037, 3040, 3055, 3287-3289, 3292, 3322, 3326, 3329, 3333, 3335, 3350, 3352, 3353, 3366, 3382, 3390, 3392, 3401,

3404, 3660, 3710, 4078, 4184-4186, 4188-4190, 4192, 4193, 4393, 4394, 4417, 4444

G: 92, 149, 151, 170, 174, 175, 185, 187, 197, 306, 320, 332, 342, 358, 422-425, 429, 447, 509, 592, 600, 602, 617, 630, 635, 636, 639, 693, 708, 710, 712, 733, 743, 745, 752, 756, 760, 761, 764, 767, 772, 774, 775, 777, 778, 780, 826, 863-865, 867-869, 1003, 1031, 1044, 1048, 1051, 1058, 1063-1065, 1077, 1082, 1096, 1101, 1209, 1229, 1231, 1240, 1243, 1245, 1248-1250, 1262, 1265, 1303, 1342, 1343, 1345-1347, 1419, 1466, 1501, 1518, 1523, 1524, 1550, 1583, 1602, 1606, 1617, 1620, 1621, 1645, 1648, 1652, 1663, 1669, 1680, 1681, 1767-1775

P: 94

E: 187, 751, 824, 835, 1039, 1457, 1459, 1461, 1513, 1514, 1527, 1537, 1698, 1736, 1740, 2144, 2225, 2255, 2257, 3104, 3109

see *also* individual polluting compounds

Water analysis and pollution, reviews

C: 2117, 3290, 3291

E: 1512

Waxes

G: 576, 613, 1423, 1554

## X

Xanthine alkaloids, see Purine alkaloids

X-ray contrast media

C: 881, 3217

## Z

Zinc, see Cations, inorganic, analytical group III

Zirconium, see Cations, inorganic analytical group III