# FORMULA INDEX.

THE following index of organic compounds of known empirical formula is arranged according to Richter's system (see *Lexikon der Kohlenstoff-Verbindungen*).

The elements are given in the order C, H, O, N, Cl, Br, I, F, S, P, and the remainder alphabetically.

The compounds are arranged—

Firstly, in groups according to the number of carbon atoms (thus $C_1$ group, $C_2$ group, etc.).

Secondly, according to the number of other elements besides carbon contained in the molecule (thus 5 IV indicates that the molecule contains five carbon atoms and four other elements).

Thirdly, according to the nature of the elements present in the molecule (given in the above order).

Fourthly, according to the number of atoms of each single element (except carbon) present in the molecule.

Salts are placed with the compounds from which they are derived. The chlorides, bromides, iodides, and cyanides of quaternary ammonium bases, however, are registered as group-substances.

## $C_1$ Group.



## $C_2$ Group.

### 2 II



### 2 III



## $C_3$ Group.



### 3 II



### 3 III



### 3 IV



## $C_4$ Group.

### 4 II



### 4 III



### 4 IV



### 4 V



### 4 VI



## $C_5$ Group.

### 5 III



### 5 IV



## $C_6$ Group.



### 6 II



### 6 III

## 6 IV

### 6 V



### 6 VI



## $C_7$ Group.

## 7 II



## 7 III



## 7 IV

## 7 V

## $C_8$ Group.



### 8 III

## 8 IV

$C_8H_4O_3Br_2S$ 2:2-Dibromo-3-keto-2:3-dihydrothionaphthen 1:1-dioxide (COHEN and SMILES), 413.

$C_8H_5O_3BrS$ 2-Bromo-3-keto-2:3-dihydrothionaphthen 1:1-dioxide (COHEN and SMILES), 413.

$C_8H_5O_6N_2Cl$ 3:5-Dinitro-2-methoxybenzoyl chloride (ASHLEY, PERKIN, and ROBINSON), 380.

$C_8H_6O_3NBr$ 5-Bromo-2-nitroacetophenone (ELSON, GIBSON, and JOHNSON), 1132.

$C_8H_6O_4NCl$ 3-Nitroanisyl chloride (ASHLEY, PERKIN, and ROBINSON), 393.

$C_8H_6O_4Cl_2S$ 4-Chlorosulphonyl-3-methoxybenzoyl chloride (SHAH), 1297.

$C_8H_6NClS$ 1-Chloro-5-methylbenzthiazole (HUNTER and JONES), 2207.

$C_8H_6NBrS$ *m*-Bromo-*p*-tolylthiocarbamide (HUNTER and JONES), 2200.

$C_8H_7O_2N_2Cl$ 4-Chloro*iso*phthalamide (GOUGH and KING), 690.

$C_8H_7O_2N_3S$ 5-Nitro-1-imino-2-methyl-1:2-dihydrobenzthiazole (HUNTER and JONES), 2204.

5-Nitro-1-methylaminobenzthiazole (HUNTER and JONES), 2204.

$C_8H_7O_3ClHg$ 3-Chloromercuri-2-hydroxy-5-methoxybenzaldehyde (HENRY and SHARP), 2287.

Chloromercuri*iso*vanillin (HENRY and SHARP), 2284.

$C_8H_7O_3Cl_2As$ Methyl-5-dichloroarsine (GOUGH and KING), 688.

$C_8H_7O_3BrHg$ Bromomercuri*iso*vanillin (HENRY and SHARP), 2284.

$C_8H_7O_5ClS$ 4-Chlorosulphonyl-3-methoxybenzoic acid (SHAH), 1297.

$C_8H_7NBr_4S_2$ 1-Thiol-2-methyl-1:2-dihydrobenzthiazole tetrabromide (HUNTER), 141.

$C_8H_7N_2ClS$ 5-Chloro-1-methylaminobenzthiazole (HUNTER and JONES), 2203.

$C_8H_7N_2BrS$ 5-Bromo-1-imino-2-methyl-1:2-dihydrobenzthiazole (HUNTER), 140.

$C_8H_8ONCl$ *N*-Chloroacetanilide, conversion of, into *p*-chloroacetanilide (BELTON), 116.

$C_8H_8O_3NCl$ 3-Chloronitrophenetoles (HODGSON and CLAY), 966.

$C_8H_8O_4NSb$ 3-Acetylamino-4-hydroxyphenylstibinic acid (MORGAN and COOK), 743.

$C_8H_8O_5NSb$ 3-Hydroxy-1:4-benz*iso*oxazine-6-stibinic acid (BALABAN), 1687.

$C_8H_8O_5N_3As$ Nitro-2-methylbenziminazolearsinic acid (PHILLIPS), 1414.

$C_8H_8O_6NAs$ *iso*Phthalamic acid 6-arsinic acid, and its ammonium salt (GOUGH and KING), 690.

$C_8H_8N_2Br_2S$ 5-Bromo-1-imino-2-methyl-1:2-dihydrobenzthiazole hydrobromide (HUNTER), 140.

$C_8H_8N_2Br_4S$ 5-Bromo-1-imino-2-methyl-1:2-dihydrobenzthiazole hydrotribromide (HUNTER), 140.

$C_8H_9ONS$ Thioform-*p*-anisidide (HAMMICK, NEW, SIDGWICK, and SUTTON), 1877.

$C_8H_9O_2N_2Cl$ 3-Chloro-6-nitrodimethylaniline, and its picrate (HODGSON and KERSHAW), 500.

$C_8H_9O_2N_2Br$ 3-Bromo-6-nitrodimethylaniline, and its picrate (HODGSON and KERSHAW), 500.

$C_8H_9O_2N_2I$ 3-Iodo-6-nitrodimethylaniline, and its picrate (HODGSON and KERSHAW), 500.

$C_8H_9O_2N_4Cl$ 6-Nitro-1:3-dimethyl-1:2:3-benztriazolinium chloride (BRADY and REYNOLDS), 2672.

$C_8H_9O_3N_2Sb$ *N*-Phenylglycineamide-*m*-stibinic acid, and its sodium salt (MORGAN and COOK), 740.

$C_8H_9O_4N_2Sb$ 3-Nitro-4-ethylaminophenylstibinic acid (MORGAN and COOK), 743.

$C_8H_9O_5NS$ 4-Sulphonamido-3-methoxybenzoic acid (SHAH), 1298.

$C_8H_9O_6N_2As$ 2-Nitro-5-acetamidophenylarsinic acid (PHILLIPS), 1914.

## 8 V



## 8 VI



# $C_9$ Group.

## 9 III

## 9 IV

## 9 V

# $C_{10}$ Group.

$C_{10}H_{16}$ α-Phellandrenes (READ and STOREY), 2781.

## 10 II

$C_{10}H_8N_2$ αα-Dipyridyl, determination of, as mercuri-iodide (MORGAN and BURSTALL), 2598.

$C_{10}H_9N$ α-Naphthylamine, methylation of (GOKHLÉ and MASON), 1757.

$C_{10}H_{10}O_3$ 4-Hydroxy-αα-dimethylphthalide (CAHN), 990.

Methylacetophenone-2-carboxylic acids (HEILBRON and WILKINSON), 2552.

$C_{10}H_{10}N_2$ 2-Phenyl-1-methylglyoxaline, nitrate of (FORSYTH and PYMAN), 398.

$C_{10}H_{12}O_2$ *n*-Butyrylphenols (COULTHARD, MARSHALL, and PYMAN), 286.

*p*-Methoxybenzyl methyl ketone (GOODALL and HAWORTH), 2487.

$C_{10}H_{12}O_3$ Acid, from oxidation of β-caryophyllene alcohol (BELL and HENDERSON), 1975.

2-Hydroxy-6-methoxy-3:5-dimethylbenzaldehyde (BOYCE, RANKINE, and ROBERTSON), 1217.

5-Propionylguaiacol (COULTHARD, MARSHALL, and PYMAN), 290.

Rhizonaldehyde (ROBERTSON and STEPHENSON), 318.

$C_{10}H_{12}O_4$ 2-Hydroxy-4-methoxy-5-ethoxybenzaldehyde (HEAD and ROBERTSON), 2438.

2-Hydroxy-5-methoxy-4-ethoxybenzaldehyde (HEAD and ROBERTSON), 2443.

$C_{10}H_{13}Br$ γ-Bromobutylbenzene (BREWIN and TURNER), 503.

γ-*o*-Tolylpropyl bromide (HARVEY, HEILBRON, and WILKINSON), 428.

$C_{10}H_{14}O_3$ Camphoric anhydride, action of substituted aromatic amines on (M. and R. SINGH), 1301.

$C_{10}H_{14}O_7$ Triacetyl erythrose (DEULOFEU), 2604.

$C_{10}H_{15}N$ *p*-Amino*iso*butylbenzene, and its salts (HICKINBOTTOM and PRESTON), 1570.

$C_{10}H_{16}O$ Piperitone (READ and STOREY), 2770.

$C_{10}H_{16}O_4$ Methyl*cyclo*hexyl-1-malonic acids (VOGEL and OOMMEN), 770.

$C_{10}H_{18}O$ Piperitols (READ and STOREY), 2779.

$C_{10}H_{18}O_2$ α-*iso*Amylallyl acetate (BURTON), 252.

$C_{10}H_{18}O_4$ Methyl hydrogen di*iso*propylmalonate (MARSHALL), 2760.

$C_{10}H_{18}O_5$ Ethyl(hydroxymethyl) ethylmalonate (WELCH), 260.

$C_{10}H_{19}N$ Piperitylamines, and their salts (READ and STOREY), 2770.

$C_{10}H_{20}O_6$ Tetramethyl mannofuranose (HAWORTH, HIRST, and WEBB), 657.

$C_{10}H_{21}N$ *d-neo*Menthylamine, hydrobromide of (READ and STEELE), 2432.

$C_{10}H_{22}O_2$ Methoxymethyl *sec.*-octyl ether (COCKER, LAPWORTH, and WALTON), 452.

## 10 III

$C_{10}H_6N_2Cl_8$ αaββω-Pentachlorobutaldehyde 2:4:6-trichlorophenylhydrazone (CHATTAWAY and IRVING), 91.

$C_{10}H_6N_2Br_4$ Tetrabromodimethylquinoxaline (BENNEIT and WILLIS), 1709.

$C_{10}H_8OS$ 1-Thiol-2-naphthol (STEVENSON and SMILES), 1743.

$C_{10}H_8O_3N_2$ 6-Nitro-2-hydroxy-4-methylquinoline (BALABAN), 2349.

$C_{10}H_8O_3Br_2$ 3:5-Dibromo-4-hydroxy-αα-dimethylphthalide (CAHN), 992.

$C_{10}H_8O_4S$ 3-Keto-2-acetyl-2:3-dihydrothionaphthen 1:1-dioxide (COHEN and SMILES), 411.

$C_{10}H_8N_2Cl_4$ αβ-Dichlorocrotonaldehyde 2:4-dichlorophenylhydrazone (CHATTAWAY and IRVING), 90.

$C_{10}H_9OBr_3$ *o'*-α'-α-Tribromo-*n*-butyrophenone (ELSON, GIBSON, and JOHNSON), 1135.

## 10 IV

$C_{10}H_8N_2Cl_2Br_2$ $\alpha\beta$-Dichlorocrotonaldehyde 2:4-dibromophenylhydrazone (CHATTAWAY and IRVING), 93.

$C_{10}H_8N_2Cl_2Br_4$ $\alpha\beta$-Dichloro-$\alpha\beta$-dibromobutaldehyde 2:4-dibromophenylhydrazone (CHATTAWAY and IRVING), 93.

$C_{10}H_8N_2Cl_3Br$ $\alpha\beta$-Dichlorocrotonaldehyde 2-chloro-4-bromophenylhydrazone (CHATTAWAY and IRVING), 94.

$C_{10}H_8N_2Cl_4Br_2$ $\alpha\beta$-Dichloro-$\alpha\beta$-dibromobutaldehyde 2:4-dichlorophenylhydrazone (CHATTAWAY and IRVING), 90.

$C_{10}H_9ON_2Cl_3$ $\beta$-Chloro-$\alpha$-ketobutaldehyde 2:4-dichlorophenylhydrazone (CHATTAWAY and IRVING), 92.

$C_{10}H_9O_3N_3S$ 5-Nitro-1-acetimido-2-methyl-1:2-dihydrobenzthiazole (HUNTER and JONES), 2204.

$C_{10}H_9O_3N_3S$ 5-Nitro-1-methylacetamidobenzthiazole (HUNTER and JONES), 2204.

$C_{10}H_9O_4Cl_4As$ Methyl *iso*phthalate 4-arsinetetrachloride (GOUGH and KING), 692.

$C_{10}H_9NCl_5I$ 6-Chloro-1-methylquinoline tetrachloroiodide (CHATTAWAY and PARKES), 1005.

$C_{10}H_{10}ON_2S$ 1-Acetimido-2-methyl-1:2-dihydrobenzthiazole (HUNTER), 140.

1-Imino-2-acetyl-5-methyl-1:2-dihydrobenzthiazole (HUNTER and JONES), 2197.

$C_{10}H_{10}OClBr$ *p*-Chloro-$\alpha$-bromo-*n*-butyrophenone (ELSON, GIBSON, and JOHNSON), 1135.

$C_{10}H_{10}O_4NAs$ 2-Hydroxy-4-methylquinoline-6-arsinic acid (BALABAN), 2350.

$C_{10}H_{10}O_4N_3As$ Acetamido-2-methylbenziminazolearsinic acid (PHILLIPS), 1414.

$C_{10}H_{11}O_2N_3S$ 5-Nitro-1-methylimino-2-ethyl-1:2-dihydrobenzthiazole (HUNTER), 143.

$C_{10}H_{11}N_2BrS$ 5-Bromo-1-methylimino-2-ethyl-1:2-dihydrobenzthiazole (HUNTER), 144.

$C_{10}H_{12}ONBr$ 5-Bromo-4-acetamido-*o*-xylene (MILLS and NIXON), 2524.

$C_{10}H_{12}ON_2S$ 1-Imino-5-ethoxy-2-methyl-1:2-dihydrobenzthiazole (HUNTER and JONES), 2201.

1-Methylamino-5-ethoxybenzthiazole (HUNTER and JONES), 2201.

$C_{10}H_{12}ON_3Br$ Bromopropiophenone semicarbazones (ELSON, GIBSON, and JOHNSON), 1133.

$C_{10}H_{12}O_2NAs$ Benzo-*p*-propylamide-*p*-arsenious oxide (GOUGH and KING), 683.

$C_{10}H_{13}O_5N_2As$ 2:5-Diacetamidophenylarsinic acid (PHILLIPS), 1915.

$C_{10}H_{14}ON_2S$ *s*-*p*-Ethoxyphenylmethylthiocarbamide (HUNTER and JONES), 2201.

$C_{10}H_{14}O_4NAs$ Benzo-*n*-propylamide-*p*-arsinic acid (GOUGH and KING), 683.

$C_{10}H_{14}O_4N_2S_2$ 1-Amino-5-methylbenzthiazole methosulphate (HUNTER and JONES), 2198.

$C_{10}H_{15}I_3SHg$ Phenyldiethylsulphonium mercuritri-iodide (BALFE, KENYON, and PHILLIPS), 2563.

## 10 V

$C_{10}H_9ON_2ClBr_2$ $\beta$-Chloro-$\alpha$-ketobutaldehyde 2:4-dibromophenylhydrazone (CHATTAWAY and IRVING), 94.

$C_{10}H_9ON_2ClS$ 5-Chloro-1-acetimido-2-methyl-1:2-dihydrobenzthiazole (HUNTER and JONES), 2203.

5-Chloro-1-methylacetamidobenzthiazole (HUNTER and JONES), 2203.

$C_{10}H_9ON_2Cl_2Br$ $\beta$-Chloro-$\alpha$-ketobutaldehyde 2-chloro-4-bromophenylhydrazone (CHATTAWAY and IRVING), 94.

$C_{10}H_9ON_2BrS$ 5-Bromo-1-acetimido-2-methyl-1:2-dihydrobenzthiazole (HUNTER), 140.

$C_{10}H_9NCl_4BrI$ 6-Bromo-1-methylquinoline tetrachloroiodide (CHATTAWAY and PARKES), 1005.

$C_{10}H_{11}ON_2SBr_3$ 1-Imino-2-acetyl-5-methyl-1:2-dihydrobenzthiazole hydrotribromide (HUNTER and JONES), 2197.

## $C_{11}$ Group.

$C_{11}H_{10}O_5$ Anisoylpyruvic acid (ROBINSON and SCHWARZENBACH), 825.

$C_{11}H_{12}O$ 5-Keto-1-methyl-5:6:7:8-tetrahydronaphthalene (HARVEY, HEILBRON, and WILKINSON), 429.

$C_{11}H_{12}O_3$ Hydroxycannabinolactone (CAHN), 989.

4-Methoxydimethylphthalide (CAHN), 991.

Methyl methylacetophenone-2-carboxylates (HEILBRON and WILKINSON), 2553.

$C_{11}N_{12}O_5$ 2-Hydroxy-4-methylcarbonato-3:6-dimethylbenzaldehyde (ROBERTSON and STEPHENSON), 319.

$C_{11}H_{13}N$ 1:3-Dimethyl-3:4-dihydro*iso*quinoline, picrate of (HEY), 20.

$C_{11}H_{14}O$ 2:4-Dimethylcinnamyl alcohol (BURTON), 252.

α-*m*-4-Xylylallyl alcohol (BURTON), 252.

$C_{11}H_{14}O_2$ *n*-Butyrylcresols (COULTHARD, MARSHALL, and PYMAN), 286.

5:6-Dimethoxyhydrindene (MILLS and NIXON), 2522.

*p*-Methoxybenzylacetone (GOODALL and HAWORTH), 2485.

γ-*o*-Tolylbutyric acid (HARVEY, HEILBRON, and WILKINSON), 428.

*p*-*n*-Valerylphenol (COULTHARD, MARSHALL, and PYMAN), 284.

$C_{11}H_{14}O_3$ 5-*n*-Butyrylguaiacol (COULTHARD, MARSHALL, and PYMAN), 290.

Dehydroangustione (GIBSON, PENFOLD, and SIMONSEN), 1198.

$C_{11}H_{14}O_4$ Dimethoxyethoxybenzaldehydes (HEAD and ROBERTSON), 2438, 2443.

Ethyl β-orcinolcarboxylate (ROBERTSON and STEPHENSON), 317.

$C_{11}H_{14}O_5$ Dimethoxyethoxybenzoic acids (HEAD and ROBERTSON), 2439, 2444.

$C_{11}H_{15}N$ 2:4-Dimethyl-1:2:3:4-tetrahydroquinolines, and their hydrochlorides (PLANT and ROSSER), 2453.

4-Phenylpiperidine, nitrate of (FORSYTH and PYMAN), 401.

$C_{11}H_{15}Br$ β-Benzylbutyl bromide (BREWIN and TURNER), 502.

γ-(2:4-Dimethylphenyl)propyl bromide (HEILBRON and WILKINSON), 2539.

$C_{11}H_{16}O$ γ-(2:4-Dimethylphenyl)propyl alcohol (HEILBRON and WILKINSON), 2538.

$C_{11}H_{16}O_2$ *cyclo*Pentane*spiro*-2-methyl*cyclo*hexane-3:5-dione (KON and THAKUR), 2231.

1:8:8-Trimethyl*bicyclo*[1:2:3]octane-2:4-dione (QUDRAT-I-KHUDA), 213.

$C_{11}H_{16}O_3$ Angustione (GIBSON, PENFOLD, and SIMONSEN), 1191.

$C_{11}H_{16}O_4$ Methyl ethyl *cyclo*pentenylmalonate (HUGH and KON), 779.

$C_{11}H_{18}O_2$ Methylcampholide (QUDRAT-I-KHUDA), 212.

$C_{11}H_{18}O_3$ 5-Acetyl-1:1:2-trimethyl*cyclo*pentane-2-carboxylic acid (QUDRAT-I-KHUDA), 211.

$C_{11}H_{22}O_6$ Tetramethyl α-mannofuranoside (HAWORTH, HIRST, and WEBB), 656.

Tetramethyl β-methylmannopyranoside (BOTT, HAWORTH, and HIRST), 2656.

### 11 III

$C_{11}H_6O_2S$ 2-Naphthylene 1-thiolcarbonate (STEVENSON and SMILES), 1743.

$C_{11}H_6O_9N_4$ Trinitrodihydroxyacetoxyquinoline (ASHLEY, PERKIN, and ROBINSON), 389.

$C_{11}H_6O_{10}N_4$ 3:6:8-Trinitro-7-methoxykynurenic acid (ASHLEY, PERKIN, and ROBINSON), 394.

$C_{11}H_7OCl$ 3-Chloro-2-naphthaldehyde (SHOESMITH and MACKIE), 1586.

$C_{11}H_7O_7N_3$ 3:6-Dinitrohydroxyacetoxyquinoline (ASHLEY, PERKIN, and ROBINSON), 389.

$C_{11}H_8O_5N_2$ 3-Nitrohydroxyacetoxyquinoline (ASHLEY, PERKIN, and ROBINSON), 388.

$C_{11}H_8O_6N_2$ Nitro-7-methoxykynurenic acid (ASHLEY, PERKIN, and ROBINSON), 394.

## 11 IV

## 11 V



# $C_{12}$ Group.

## 12 III

## 12 IV

## $C_{13}$ Group.

## 13 III

## 13 IV

## 13 V

### 13 VI

$C_{13}H_7O_7N_2Cl_2BrS$ 2:4-Dichloro-6-bromonitrophenyl *o*-nitro-*p*-toluenesulphonates (Fox and Turner), 1863.

$C_{13}H_8O_7N_2ClBrS$ 2-Chloro-4-bromo-5-nitrophenyl *o*-nitro-*p*-toluenesulphonate (Fox and Turner), 1858.

## $C_{14}$ Group.

$C_{14}H_{26}$ 1:4(*a*)-Dimethyl-7-ethyldecahydronaphthalene (Clemo and Haworth), 2581.

### 14 II

$C_{14}H_{10}O_2$ 4-Hydroxy-9-anthranol (Cross and Perkin), 306.

$C_{14}H_{10}O_3$ 4:5-Dihydroxy-9-anthranol (Cross and Perkin), 306.

$C_{14}H_{12}O$ Diphenylethylene oxides (Read and Campbell), 2377.

$C_{14}H_{13}N$ 2:3-Dimethylcarbazole (Morgan and Walls), 1508.

$C_{14}H_{15}N$ Aminodimethyldiphenyls (Morgan and Walls), 1507.

$C_{14}H_{15}N_3$ Aminoazotoluene, and its hydrochloride (Morgan and Walls), 1506.

$C_{14}H_{16}O_2$ 1-Phenyl-4-ethyl*cyclo*hexane-3:5-dione (Mattar, Hastings, and Walker), 2456.

$C_{14}H_{17}N_3$ 4-Piperazino-2-methylquinoline (Kermack and Smith), 1358.

$C_{14}H_{18}O_2$ Ethyl *β*-(2:4-dimethylphenyl)crotonate (Heilbron and Wilkinson), 2540.

Ethyl *β*-hydroxy-*β*-(2:4-dimethylphenyl)butyrate (Heilbron and Wilkinson), 2540.

$C_{14}H_{18}O_4$ Ethyl *p*-methoxybenzylacetoacetate (Goodall and Haworth), 2485.

Methyl *β*-4-methoxy-2:5-dimethylbenzoylpropionate (Clemo, Haworth, and Walton), 1112.

$C_{14}H_{18}O_5$ Methyl 2:4-dimethoxy-5-ethoxycinnamate (Head and Robertson), 2439.

$C_{14}H_{18}O_8$ 1:2-Dimethyl-$\Delta^5$-*cyclo*hexene-4:5-dimalonic acid (Cawley, Evans, and Farmer), 528.

$C_{14}H_{19}N$ Octahydroheptaquinolines (Plant and Rosser), 1843.

$C_{14}H_{20}O_2$ Ethyl *β*-(2:4-dimethylphenyl)butyrate (Heilbron and Wilkinson), 2541.

4-*n*-Heptoyl-*m*-cresol (Coulthard, Marshall, and Pyman), 288.

$C_{14}H_{20}O_3$ Ethyl *β*-hydroxy-*β*-*o*-tolyl-*a*-ethylpropionate (Harvey, Heilbron, and Wilkinson), 426.

$C_{14}H_{20}O_4$ Decalin-*β*-*spirocyclo*propane-1:2-dicarboxylic acids (Rao), 1176.

*a*-Hydroxy-*trans*-decalin-2:2-diacetic lactones (Rao), 1174.

$C_{14}H_{20}O_5$ *a*-Keto-*trans*-decalin-2:2-diacetic acid (Rao), 1179.

$C_{14}H_{23}P$ *p*-Ethylphenyldi-*n*-propylphosphine (Jackson, Davies, and Jones), 2300.

$C_{14}H_{24}O_2$ $\gamma$-$\Delta^9$-Decenylbutyrolactone (Robinson), 750.

$C_{14}H_{24}O_3$ Ethyl 2-hydroxy-*trans*-decalin-2-acetate (Rao), 1182.

4-Keto-$\Delta^{13}$-tetradecenoic acid (Robinson), 749.

$C_{14}H_{26}O_2$ $\gamma$-*n*-Decylbutyrolactone (Robinson), 748.

$C_{14}H_{26}O_3$ 4-Ketomyristic acid (Robinson), 747.

### 14 III

$C_{14}H_6N_4Cl_8$ $\omega\omega'$-Dichloroglyoxal di-2:4:6-trichlorophenylosazone (Chattaway and Farinholt), 98.

$C_{14}H_6N_4Br_8$ $\omega\omega'$-Dibromoglyoxal di-2:4:6-tribromophenylosazone (Chattaway and Farinholt), 98.

$C_{14}H_7O_3Cl$ 2-Chloro-3-hydroxyanthraquinone (Hayashi), 1523.

## 14 IV

## 14 V

$C_{14}H_8O_5NBrS$ 2-Bromo-3-keto-2-*p*-nitrophenyl-2:3-dihydrothionaphthen 1:1-dioxide (COHEN and SMILES), 413.

$C_{14}H_9O_2N_3ClBr_3$ ω-Bromo-*m*-nitrobenzaldehyde *N*-chloro-3:5-dibromo-*p* tolylhydrazone (CHATTAWAY and ADAMSON), 849.

3:5-Dibromo-*p*-tolueneazo-*m*-nitrophenylchlorobromomethane (CHATTAWAY and ADAMSON), 849.

$C_{14}H_{10}O_6N_4S_2As_2$ 5:5′-Arseno-(benziminazole-2-sulphonic acid) (EVERETT), 2407.

$C_{14}H_{12}O_6N_4S_2As_2$ Benziminazole-5-arsinic acid 2-disulphide (EVERETT), 2405.

# $C_{15}$ Group.

$C_{15}H_{24}$ Cedrene, action of mercuric acetate on (BELL), 1908.

## 15 II

$C_{15}H_{10}O_2$ 2-Methylanthraquinone (HAYASHI), 1519.

$C_{15}H_{10}O_4$ Rubiadin (JONES and ROBERTSON), 1705.

$C_{15}H_{12}O_3$ Benzoyltoluic acids (HAYASHI), 1518.

6-Hydroxy-2-benzylcoumaranone (BAKER), 1020.

2-*o*-Toluoylbenzoic acid (FAIRBOURNE and FOSTER), 1276.

$C_{15}H_{12}O_5$ 2-(2′:5′-Dihydroxybenzoyl)toluic acid (HAYASHI), 1527.

4:6-Dihydroxy-2-*p*-methoxyphenylcoumaranone (BAKER), 1018.

$C_{15}H_{12}O_6$ *n*- and *iso*-Carthamidins (KURODA), 760.

$C_{15}H_{14}O$ Di-*o*-tolyl ketone (COOK), 1091.

$C_{15}H_{14}O_3$ *O*-Benzyl*iso*vanillin (LOVECY, ROBINSON, and SUGASAWA), 818.

$C_{15}H_{14}O_4$ *O*-Benzyl*iso*vanillic acid (LOVECY, ROBINSON, and SUGASAWA), 819.

$C_{15}H_{14}S$ Dimethylsulphonium 9-fluorenylidide (INGOLD and JESSOP), 716.

$C_{15}H_{15}N$ 9-Fluorenyldimethylamine (STEVENS), 2115.

$C_{15}H_{15}Br$ αγ-Diphenylpropyl bromide (BREWIN and TURNER), 503.

$C_{15}H_{16}O_3$ α-7-Hydroxy-1-keto-5:8-dimethyl-1:2:3:4-tetrahydronaphthyl-2-propionic lactone (CLEMO, HAWORTH, and WALTON), 1113.

$C_{15}H_{16}O_8$ ω:4:5-Triacetoxy-3-methoxyacetophenone (BRADLEY ROBINSON, and SCHWARZENBACH), 814.

$C_{15}H_{16}O_9$ Æsculin, constitution of (HEAD and ROBERTSON), 2434.

$C_{15}H_{17}N$ Benzhydryldimethylamine, and its salts (STEVENS), 2114.

$C_{15}H_{18}O_2$ 1-Phenyl-4-*n*-propyl*cyclo*hexane-3:5-dione (MATTAR, HASTINGS, and WALKER), 2457.

Santonin, constitution of (CLEMO, HAWORTH, and WALTON), 1110; (CLEMO and HAWORTH), 2579.

*desmotropo*Santonins (CLEMO, HAWORTH, and WALTON), 1114.

$C_{15}H_{18}O_4$ α-7-Hydroxy-1-keto-5:8-dimethyl-1:2:3:4-tetrahydronaphthyl-2-propionic acid (CLEMO, HAWORTH, and WALTON), 1114.

$C_{15}H_{18}N_2$ 4-Piperidino-2-methylquinoline, and its salts (KERMACK and SMITH), 1357.

$C_{15}H_{20}O_4$ Ethyl *p*-methoxybenzylmethylacetoacetate (GOODALL and HAWORTH), 2485.

Ethyl β-4-methoxy-2:5-dimethylbenzoylpropionate (CLEMO HAWORTH, and PERKIN), 1112.

$C_{15}H_{22}O_3$ Tetrahydrosantonin (CLEMO and HAWORTH), 2580.

$C_{15}H_{32}O_4$ Ethyl 2-methyl*cyclo*hexane*spirocyclo*hexane-3:5-dione-6-carboxylate (KON and THAKUR), 2227.

## 15 III

$C_{15}H_{19}ON$ Methyl-$\Delta^1$-*cyclo*hexenylacetanilides (KON and THAKUR), 2222. Methyl*cyclo*hexylideneacetanilides (KON and THAKUR), 2222.

$C_{15}H_{19}ON_3$ 4·Piperazino-6-methoxy-2-methylquinoline (KERMACK and SMITH), 1359.

$C_{15}H_{19}O_4Br$ Ethyl $\beta$-bromo-$\beta$-4-methoxy-2:5-dimethylbenzoylpropionate (CLEMO, HAWORTH, and WALTON), 1112.

$C_{15}H_{25}OP$ *p* Methoxyphenyldi-*n*-butylphosphine (JACKSON, DAVIES, and JONES), 2301.

$C_{15}H_{28}O_2I_2$ Ethylene $\alpha\gamma$-di-iodohydrin $\beta$-laurate (FAIRBOURNE), 379.

$C_{15}H_{29}ON$ *iso*Valeryl-*l*-menthylamine (READ and STOREY), 2765.

$C_{15}H_{33}OSb$ Tri-*n*-amylstibinic oxide (DYKE and JONES), 1926.

$C_{15}H_{33}O_4P$ Tri-*n*-amyl orthophosphate (EVANS, DAVIES, and JONES), 1310.

$C_{15}H_{33}O_4Sb_3$ Tri-*n*-amylstibinic metantimonite (DYKE and JONES), 1926.

$C_{15}H_{33}Cl_2Sb$ Tri-*n*-amylstibinic chloride (DYKE and JONES), 1926.

$C_{15}H_{33}Br_2Sb$ Tri-*n*-amylstibinic bromide (DYKE and JONES), 1926.

## 15 IV

$C_{15}H_9O_4BrS$ 2-Bromo-3-keto-2-benzoyl-2:3-dihydrothionaphthen 1:1-dioxide (COHEN and SMILES), 413.

$C_{15}H_{13}ON_2Cl$ 6-*p*-Chlorobenzeneazo-5-hydroxyhydrindene (MILLS and NIXON), 2521.

$C_{15}H_{13}ON_3S$ *s*-5-Methylbenzthiazolylphenylcarbamide (HUNTER and JONES), 2200.

$C_{15}H_{13}O_3N_3S$ 4′-Nitro-1-acetanilidobenzthiazole (HUNTER and JONES), 2206.

$C_{15}H_{13}O_9N_3S$ 5:6-Dinitro-*m*-4-xylyl *o*-nitro-*p*-toluenesulphonate (FOX and TURNER), 1866.

$C_{15}H_{14}ON_2S$ 4′-Ethoxy-1-anilinobenzthiazole (HUNTER and JONES), 2206.

$C_{15}H_{14}O_5N_2S$ *p*-Toluenesulphon-*m*′-nitroacetanilide (BELL), 1077.

$C_{15}H_{14}O_7N_2S$ 2:6-Dinitro-*m*-4-xylyl *p*-toluenesulphonate (FOX and TURNER), 1866.

$C_{15}H_{14}N_2Br_2S$ *s*-Di-*m*-bromo-*p*-tolylthiocarbamide (HUNTER and JONES), 2200.

$C_{15}H_{15}O_3NS$ Toluenesulphonamidoacetophenones (ELSON, GIBSON, and JOHNSON), 1131.

$C_{15}H_{15}O_4NS$ 2-Acetoxy-*p*-toluenesulphonanilide (BELL), 1986.

$C_{15}H_{15}O_5NS$ 5-Nitro-*m*-4-xylyl *p*-toluenesulphonate (FOX and TURNER), 1866.

$C_{15}H_{15}N_2BrS$ *S*-Methyl-*s*-phenylmethyl-*p*-bromophenylthiocarbamide (HUNTER and JONES), 2211.

$C_{15}H_{15}N_2Br_3S$ 1-*p*-Toluidino-5-methylbenzthiazole hydrotribromide (HUNTER), 135.

$C_{15}H_{16}ON_2S$ *p*-Ethoxy-*s*-diphenylthiocarbamide (HUNTER and JONES), 2205.

$C_{15}H_{16}O_2Cl_2Te$ *p*-Anisyl-*p*-phenetyl telluridichloride (MORGAN and BURSTALL), 2601.

$C_{15}H_{21}N_2IS_2$ Thiocarbocyanine from 2:4-dimethylthiazole ethiodide (FISHER and HAMER), 2510.

$C_{15}H_{30}O_2NI$ *l*-Menthyl dimethylaminoacetate methiodide (RULE, THOMPSON, and ROBERTSON), 1892.

## 15 V

$C_{15}H_{12}ON_2Br_2S$ 3:4′-Dibromo-1-anilino-5-ethoxybenzthiazole (HUNTER and JONES), 2209.

$C_{15}H_{13}ON_2BrS$ Bromo-1-anilinoethoxybenzthiazoles (HUNTER and JONES), 2209.

$C_{15}H_{14}O_4NClS$ Chloro-2-acetamidophenyl *p*-toluenesulphonate (BELL), 1983.

$C_{15}H_{15}ON_2BrS$ *s*-*p*-Bromo-*p*′-ethoxydiphenylthiocarbamide (HUNTER and JONES), 2208.

# $C_{16}$ Group.

$C_{16}H_{14}$ Substance, from dichlorodivinylchloroarsine and aluminium chloride (GIBSON and JOHNSON), 2785.

## 16 II

$C_{16}H_{10}O_4$ Anthracene-1:5-dicarboxylic acid (COULSON), 1933.

$C_{16}H_{11}N_3$ 2-Anilino-3-cyanoquinoline (ISHAQ and RÂY), 2741.

$C_{16}H_{12}O_2$ Methyl anthracene-1-carboxylate (COULSON), 1933.

$C_{16}H_{12}O_4$ 3-*O*-Methylrubiadin (JONES and ROBERTSON), 1705.

$C_{16}H_{12}O_6$ Diosmetin (LOVECY, ROBINSON, and SUGASAWA), 820.

5:7:4′-Trihydroxy-3′-methoxyflavone (LOVECY, ROBINSON, and SUGASAWA), 822.

$C_{16}H_{12}N_2$ 5-Methyl-2:3-benz-γ-carboline (KERMACK and SMITH), 2003.

$C_{16}H_{12}N_4$ 4-(Benztriazolyl-3′)-2-methylquinoline, and its hydrochloride (KERMACK and SMITH), 2003.

$C_{16}H_{14}O_3$ 5-Acetyl-*o*-tolyl benzoate (COULTHARD, MARSHALL, and PYMAN), 286.

$C_{16}H_{14}O_4$ *iso*Acetovanillone benzoate (COULTHARD, MARSHALL, and PYMAN), 290.

Methyl *O*-benzyl*iso*vanillate (LOVECY, ROBINSON, and SUGASAWA), 819.

$C_{16}H_{14}O_5$ 2-Hydroxy-4-methoxy-3-methylbenzophenone-2′-carboxylic acid (JONES and ROBERTSON), 1704.

$C_{16}H_{15}N_3$ 4-*o*-Aminophenylamino-2-methylquinoline, and its dihydrochloride (KERMACK and SMITH), 2003.

$C_{16}H_{16}O_2$ αβ-Di-*p*-methoxyphenylethylene oxide (READ and CAMPBELL), 2679.

$C_{16}H_{16}O_4$ 5:8-Diacetoxy-1:6-dimethylnaphthalene (HEILBRON and WILKINSON), 2552.

3:3′-Dimethoxybenzoin (HODGSON and ROSENBERG), 17.

$C_{16}H_{16}O_9$ ω-3:4:5-Tetra-acetoxyacetophenone (BRADLEY, ROBINSON, and SCHWARZENBACH), 797.

$C_{16}H_{17}N$ Benzyl*iso*propenylaniline, and its hydrochloride (SHORT and WATT), 2296.

$C_{16}H_{18}O_2$ *l-iso*Hydrobenzoin ethyl ether (READ and CAMPBELL), 2383.

$C_{16}H_{18}O_4$ Ethyl 1-phenyl-4-methyl*cyclo*hexane-3:5-dione-2-carboxylate (MATTAR, HASTINGS, and WALKER), 2456.

$C_{16}H_{18}O_5$ δ-4-Methoxy-2:5-dimethylbenzoylbutane-βγ-dicarboxylic anhydride (CLEMO, HAWORTH, and WALTON), 1112.

$C_{16}H_{18}O_9$ 7-*O*-Methylæsculin (HEAD and ROBERTSON), 2436.

$C_{16}H_{18}S_2$ 1:4-Diphenylthiolbutane (BENNETT and MOSSES), 2368.

$C_{16}H_{24}O_2$ *l*-β-Octyl phenylacetate (RULE and BAIN), 1900.

$C_{16}H_{24}O_5$ Methyl α-keto-*trans*-decalin-2:2-diacetate (RAO), 1180.

$C_{16}H_{27}P$ *p*-Ethylphenyldi-*n*-butylphosphine (JACKSON, DAVIES, and JONES), 2300.

$C_{16}H_{28}O_4$ 4:13-Diketopalmitic acid (ROBINSON), 751.

Ethyl 1:2-dimethyl*cyclo*hexane-4:5-diacetate (CAWLEY, EVANS, and FARMER), 529.

$C_{16}H_{30}O_2$ δ-Undecylvalerolactone (ROBINSON), 748.

$C_{16}H_{30}O_3$ Ketopalmitic acids (ROBINSON), 748.

$C_{16}H_{34}O$ Methyl-*n*-amyl-*n*-nonylcarbinol (DAVIES, DIXON, and JONES), 470.

Methyl-(β-methylbutyl)-*n*-nonylcarbinol (DAVIES, DIXON, and JONES), 472.

## 16 III

$C_{16}H_{11}O_2Br$ Methyl bromoanthracene-1-carboxylate (COULSON), 1935.

$C_{16}H_{11}O_3N_3$ ω-Cyano-ω-*o*-nitrobenzylideneacetanilide (ISHAQ and RÂY), 2740.

$C_{16}H_{11}O_4Cl$ 7-Hydroxy-4-carboxyflavylium chloride (ROBINSON and SCHWARZENBACH), 825.

## 16 IV



## 16 V

## $C_{17}$ Group.



### 17 III

## 17 IV

## 17 V



## $C_{18}$ Group.

## 18 III

$C_{18}H_{13}O_5N$ ω-Cyano-ω-6-nitro-3:4-methylenedioxybenzylideneaceto-*p*-toluidide (ISHAQ and RÂY), 2741.

$C_{18}H_{15}O_2N$ 12:13-Dimethoxy*iso*indenoquinoline (CLEMO and JOHNSON), 2137.

$C_{18}H_{15}O_2N_3$ 2-Anilino-3-cyano-6:7-dimethoxyquinoline (ISHAQ and RÂY), 2741.

$C_{18}H_{15}O_4Cl$ 7-Hydroxy-4-carbethoxyflavylium chloride (ROBINSON and SCHWARZENBACH), 825.

$C_{18}H_{16}ON_2$ 1:6-Dimethyl-α-naphthaquinone phenylhydrazone (HEILBRON and WILKINSON), 2552.

$C_{18}H_{16}ON_4$ 4-(Benztriazolyl-3')-6-methoxy-2:3-dimethylquinoline (KERMACK and SMITH), 2006.

$C_{18}H_{16}O_2N_2$ ω-Cyano-ω-*m*-methoxybenzylideneaceto-*p*-toluidide (ISHAQ and RÂY), 2740.

$C_{18}H_{16}O_2Cl_2$ *meso*-βγ-Diphenyladipyl chloride (OOMMEN and VOGEL), 2151.

$C_{18}H_{16}O_3N_2$ ω-Cyano-ω-3:4-dimethoxybenzylideneacetanilide (ISHAQ and RÂY), 2740.

$C_{18}H_{17}O_2Cl$ Ethyl α-*p*-chlorobenzylcinnamate (SHOPPEE), 977.

$C_{18}H_{17}O_2Br$ Ethyl α-*p*-bromobenzylcinnamate (SHOPPEE), 978.

$C_{18}H_{17}O_2I$ Ethyl *p*-iodo-α-benzylcinnamate and α-*p*-iodobenzylcinnamate (SHOPPEE), 980.

$C_{18}H_{17}O_3N$ 4-Acetoxy-*N*-phenyl-αα-dimethylphthalimidine (CAHN), 992.

4-Hydroxy-3-homoveratrylquinoline (CLEMO and JOHNSON), 2135.

4-Keto-3-veratrylidene-1:2:3:4-tetrahydroquinoline (CLEMO and JOHNSON), 2136.

$C_{18}H_{17}O_7Cl$ Trimethyldelphinidin chlorides (BRADLEY, ROBINSON, and SCHWARZENBACH), 808.

$C_{18}H_{18}O_4S_2$ Dimethyl diphenylthiolethane-*mm'*-dicarboxylate (BELL and BENNETT), 2.

$C_{18}H_{18}O_6S_2$ Dimethyl diphenylthiolethanedicarboxylate dioxides (BELL and BENNETT), 3.

$C_{18}H_{18}N_4S_2$ 2:2'-Dithiodiphenyl-4:5-dihydroglyoxalines (MCCLELLAND and WARREN), 1101.

$C_{18}H_{19}ON_3$ 4-*o*-Aminophenylamino-6-methoxy-2:3-dimethylquinoline, and its hydrochlorides (KERMACK and SMITH), 2006.

$C_{18}H_{19}O_2N$ Dimethylaminobenzylcinnamic acids (SHOPPEE), 983.

2:4-Dimethylcinnamyl phenylurethane (BURTON), 252.

α-*m*-4-Xylylallyl phenylurethane (BURTON), 252.

$C_{18}H_{20}ON_2$ 1-Phenylcarbamyl-3:4-dimethyl-1:2:3:4-tetrahydroquinoline (PLANT and ROSSER), 2449.

$C_{18}H_{21}ON$ ω-Dimethylamino-ω-α-phenylethylacetophenones (STEVENS), 2113.

$C_{18}H_{21}O_2N$ ω-Dimethylamino-ω-*p*-methoxybenzylacetophenone (STEVENS), 2112.

γ-(2:4-Dimethylphenyl)propyl urethane (HEILBRON and WILKINSON), 2539.

$C_{18}H_{21}O_4N$ Acetyldi-*p*-methoxyphenylhydroxyethylamine (READ and CAMPBELL), 2677.

$C_{18}H_{22}ON_2$ Valerylcresol phenylhydrazones (COULTHARD, MARSHALL, and PYMAN), 287.

$C_{18}H_{23}O_3N$ Phenacyl-*p*-methoxybenzyldimethylamine, picrate of (STEVENS), 2112.

$C_{18}H_{23}O_3N_3$ 6-Keto-13-ethyloctahydromorphenol methyl ether semicarbazone (CAHN), 705.

$C_{18}H_{25}ON$ Phenylacetyl-*l*-piperitylamine (READ and STOREY), 2777.

$C_{18}H_{25}O_2N$ Anisoylpiperitylamines (READ and STOREY), 2776.

$C_{18}H_{25}O_3N$ Camphoroethoxyphenylimides (M. and R. SINGH), 1303.

$C_{18}H_{25}O_4N$ Ethoxycamphoranilic acids (M. and R. SINGH), 1303.

$C_{18}H_{26}ON_4$ Azoxybenzene-*pp'*-bistrimethylamine, salts of (ZAKI), 1081.

## 18 IV



## 18 V



# $C_{19}$ Group.

## 19 II



## 19 III



## 19 IV

## 19 V



# $C_{20}$ Group.



## 20 II



## 20 III

## 20 IV



## 20 V



# $C_{21}$ Group.

## 21 III



## 21 IV

## 21 V

$C_{21}H_{23}O_2N_2Cl_4I$ Strychnine tetrachloroiodide (CHATTAWAY and PARKES), 1004.

# $C_{22}$ Group.

$C_{22}H_{14}O_3$ 10-Methoxyphenanthraxanthone (BAKER), 266.

$C_{22}H_{16}O_2$ Acenaphthanthranyl acetate (COOK), 1095.

$C_{22}H_{18}O_2$ 5:7:4′-Triacetoxy-3′-methoxyflavone (LOVECY, ROBINSON, and SUGASAWA), 822.

$C_{22}H_{18}O_5$ Methyl 3-methoxy-4:5-diphenylmethylenedioxybenzoate (BRADLEY, ROBINSON, and SCHWARZENBACH), 813.

$C_{22}H_{18}O_8$ 2:3:4-Triacetoxy-9-anthranyl acetate (CROSS and PERKIN), 300.

$C_{22}H_{19}N_3$ 2-Phenyl-1-*m*-tolyl-5-benzyl-1:3:4-triazole (BHAGAT and RÂY), 2358.

$C_{22}H_{22}O_4$ Ethyl 1-phenyl-4-benzyl*cyclo*hexane-3:5-dione-2-carboxylate (MATTAR, HASTINGS, and WALKER), 2458.

$C_{22}H_{26}O_4$ Ethyl *meso*-$\beta\gamma$-diphenyladipate (OOMMEN and VOGEL), 2152.

$C_{22}H_{28}O_2$ *d*-$\beta$-Octyl diphenylacetate (RULE and BAIN), 1900.

$C_{22}H_{34}O_8$ Ethyl 1:2-dimethyl*bicyclo*hexane-4:5-dimalonate (CAWLEY, EVANS, and FARMER), 526.

$C_{22}H_{36}O_8$ Ethyl 1:2-dimethyl*cyclo*hexane-4:5-dimalonate (CAWLEY, EVANS, and FARMER), 527.

## 22 III

$C_{22}H_{15}O_5N$ 7-Methoxy-2-phenyl-3-*o*-nitrophenylbenzo-$\gamma$-pyrone (BAKER), 268.

$C_{22}H_{15}O_3Cl$ Benzoyldelphinidin chloride (BRADLEY, ROBINSON, and SCHWARZENBACH), 801.

$C_{22}H_{16}O_4N_2$ $\omega$-Diazo-3-methoxy-4:5-diphenylmethylenedioxyacetophenone (BRADLEY, ROBINSON, and SCHWARZENBACH), 813.

$C_{22}H_{16}N_2S$ 1-Methyl-$\beta$ naphthylamino-$\alpha$-naphthathiazole (HUNTER and JONES), 947.

1-$\beta$-Naphthylimino-2-methyl-1:2-dihydro-$\alpha$-naphthathiazole (HUNTER and JONES), 947.

$C_{22}H_{17}O_3N$ 7-Methoxy-3-phenyl-2-*o*-aminophenylbenzo-$\gamma$-pyrone (BAKER), 266.

$C_{22}H_{18}O_2S$ *iso*-$\beta$-Naphthol sulphide dimethyl ether (WARREN and SMILES), 961.

$C_{22}H_{18}O_3N_2$ Benzoylmethylbenzildioximes (BRADY and MUERS), 220.

$C_{22}H_{18}O_4S$ *iso*-2-Naphtholsulphone dimethyl ether (WARREN and SMILES), 1329.

$C_{22}H_{18}N_2S$ Methyl-*s*-di-$\beta$-naphthylthiocarbamide (HUNTER and JONES), 947.

$C_{22}H_{19}ON_3$ 2:5-Diphenyl-1-*p*-ethoxyphenyl-1:3:4-triazole (BHAGAT and RÂY), 2358.

2-Phenyl-1-*p*-methoxyphenyl-5-benzyl-1:3:4-triazole (BHAGAT and RÂY), 2358.

$C_{22}H_{22}O_6N_2$ 2:5-Diketo-3:6-di-*m*-acetoxybenzylpiperazine (DICKINSON and MARSHALL), 2292.

$C_{22}H_{26}O_6Cu$ Copper dehydroangustione (GIBSON, PENFOLD, and SIMONSEN), 1198.

$C_{22}H_{30}O_6Cu$ Copper angustione (GIBSON, PENFOLD, and SIMONSEN), 1192.

$C_{22}H_{34}O_8Br_2$ Ethyl 1:2-dimethyl*cyclo*hexane-4:5-dibromodimalonate (CAWLEY, EVANS, and FARMER), 529.

## 22 IV

$C_{22}H_{14}O_6N_2Br_4$ 2:5-Diketo-3:6-di-(3′:5′-dibromoacetoxybenzylidene)piperazines (DICKINSON and MARSHALL), 2291.

$C_{22}H_{18}O_6N_2Br_4$ 2:5-Diketo-3:6-di-(3′:5′-dibromo-2′-acetoxybenzyl)piperazine (DICKINSON and MARSHALL), 2291.

$C_{22}H_{19}O_5N_3Cl_2$ 2:2′-Dichloro-3:3′-dimethoxybenzoin *p*-nitrophenylhydrazone (HODGSON and ROSENBERG), 17.

$C_{22}H_{22}O_3N_2S$ 2-*p*-Dimethylaminobenzylideneaminophenyl *p*-toluenesulphonate (BELL), 1985.

2-*p*-Toluenesulphonyl-1-dimethylaminophenyldihydrobenzoxazole (BELL), 1985.

### 22 V

$C_{22}H_{25}O_2N_2Cl_4I$ *N*-Methylstrychnine tetrachloroiodide (CHATTAWAY and PARKES), 1005.

$C_{22}H_{30}O_2I_4S_2Cd$ Phenacylmethylethylsulphonium cadmitetraiodides (BALFE, KENYON, and PHILLIPS), 2571.

$C_{22}H_{30}O_2I_4S_2Hg$ Phenacylmethylethylsulphonium mercuritetraiodides (BALFE, KENYON, and PHILLIPS), 2568.

## $C_{23}$ Group.

$C_{23}H_{18}O_6$ *O*-Benzyldiosmetin (LOVECY, ROBINSON, and SUGASAWA), 819.

5:7-Dihydroxy-4′-benzyloxy-3′-methoxyflavone (LOVECY, ROBINSON, and SUGASAWA), 821.

$C_{23}H_{20}O_{10}$ Acetylcarthamidins (KURODA), 761.

$C_{23}H_{20}O_{11}$ Triethylcarbonatoanthragallol (CROSS and PERKIN), 303.

$C_{23}H_{30}O$ *l*-Menthyl diphenylmethyl ether (RULE and BAIN), 1899.

$C_{23}H_{32}O_4$ Anhydrodigoxigenin (SMITH), 2479.

$C_{23}H_{34}O_5$ Digoxigenin (SMITH), 509, 2478.

$C_{23}H_{34}O_5$ *iso*Digoxigenin (SMITH), 2481.

$C_{23}H_{34}O_6$ *iso*Digoxigeninic acid (SMITH), 2481.

$C_{23}H_{36}O_5$ Dihydrodigoxigenin (SMITH), 2480.

### 23 III

$C_{23}H_{17}O_6Cl$ 5-*O*-Benzoyl-3′-*O*-methyldelphinidin chloride (BRADLEY, ROBINSON, and SCHWARZENBACH), 814.

$C_{23}H_{18}O_2N_2$ Di-(α-cyanobenzyloxyphenylmethane (BAKER and NEW), 1275.

$C_{23}H_{18}O_6S$ Phenacyl-*o*-carbophenacylphenylsulphone (COHEN and SMILES), 409.

$C_{23}H_{21}ON$ ω-Dimethylamino-ω-fluorenylacetophenone (STEVENS), 2115.

$C_{23}H_{21}ON_3$ 4-Benzidino-6-methoxy-2-methylquinoline (SLATER), 1213.

$C_{23}H_{23}ON$ ω-Dimethylamino-ω-benzhydrylacetophenone (STEVENS), 2115.

$C_{23}H_{23}O_3N$ Benzylidenedi-*p*-methoxyphenylhydroxyethylamine (READ and CAMPBELL), 2677.

$C_{23}H_{26}O_4N_2$ Brucine (ASHLEY, PERKIN, and ROBINSON), 382; (ACHMATOWICZ, FAWCETT, PERKIN, and ROBINSON), 1769.

$C_{23}H_{26}O_8N_2$ Ethyl di(hydroxymethyl)malonate diphenylcarbamate (WELCH), 259.

$C_{23}H_{28}O_4N_2$ Dihydrobrucine (ACHMATOWICZ, FAWCETT, PERKIN, and ROBINSON), 1770.

$C_{23}H_{30}O_3N_2$ Dihydrobrucidine (ACHMATOWICZ, FAWCETT, PERKIN, and ROBINSON), 1771.

$C_{23}H_{32}O_4N_2$ Hexahydrobrucine (ACHMATOWICZ, FAWCETT, PERKIN, and ROBINSON), 1772.

### 23 IV

$C_{23}H_{21}O_4N_2As$ 4′-6″-Methoxy-2″-methyl-4″-quinolylaminodiphenylglarsinic acid (SLATER), 1214.

## $C_{24}$ Group.

$C_{24}H_{16}$ 6-Phenyl-1:2-benzanthracene (COOK), 1092.

### 24 II

$C_{24}H_{18}O$ 1-*p*-Phenylbenzoyl-2-methylnaphthalene (COOK), 1092.

$C_{24}H_{18}O_5$ 6:7:10-Trimethoxyphenanthraxanthone (DAY), 264.

## $C_{25}$ Group.

$C_{25}H_{21}O_8Cl$ 5-*O*-Benzoyl-7:3′:5′-*O*-trimethyldelphinidin chloride (BRADLEY, ROBINSON, and SCHWARZENBACH), 807.

$C_{25}H_{21}N_2I$ 1:1′-Dimethylbenz*iso*cyanine iodide (HAMER), 1002.

$C_{25}H_{23}O_2N_3$ Acetyl derivative of 4-benzidino-6-methoxy-2-methylquinoline (SLATER), 1214.

$C_{25}H_{21}N_3I$ Acenaphthpyridine-2-aldehyde methiodide *p*-dimethylaminoanil (HAMER), 999.

### 25 IV

$C_{25}H_{19}N_2ClS_2$ 2:2′-Dimethyl-5:6:5′:6′-dibenzthiocyanine chloride (FISHER and HAMER), 2509.

$C_{25}H_{19}N_2BrS_2$ 2:2′-Dimethyl-5:6:5′:6′-dibenzthiocyanine bromide (FISHER and HAMER), 2509.

$C_{25}H_{19}N_2IS_2$ 2:2′-Dimethyl-5:6:5′:6′-dibenzthiocyanine iodide (FISHER and HAMER), 2509.

$C_{25}H_{34}O_8N_2S$ Dihydrobrucine methosulphate (ACHMATOWICZ, FAWCETT, PERKIN, and ROBINSON), 1770.

## $C_{26}$ Group.

$C_{26}H_{32}O_6$ Substance, from 1:1:3-trimethyl-$\Delta^2$-*cyclo*hexene-4:6-dione and piperonal (GIBSON, PENFOLD, and SIMONSEN), 1194.

$C_{26}H_{36}O_6$ Substance, from 1:1:3-trimethyl*cyclo*hexane-4:6-dione and piperonal (GIBSON, PENFOLD, and SIMONSEN), 1196.

$C_{26}H_{40}O$ Ergosterol, hydrogenation and fractionation of (SPRING), 2666.

### 26 III

$C_{26}H_{20}O_2N_2$ Substance, from benzeneazo-$\beta$-naphthol and $\beta$-naphthol (HODGSON and ROSENBERG), 2787.

$C_{26}H_{20}O_2S$ 9-Phenyl-9-fluorenyl-*p*-tolylsulphone (INGOLD and JESSOP), 711.

$C_{26}H_{23}N_2I$ Methylethylbenz*iso*cyanine iodide (HAMER), 1002.

$C_{26}H_{25}O_{12}Br_3$ Tribromopenta-acetylnorbarbaloin (GIBSON and SIMONSEN), 560.

$C_{26}H_{25}N_2I$ 2-*p*-Dimethylaminostyrylacenaphthpyridine methiodide (HAMER), 999.

$C_{26}H_{27}O_9Br_3$ Tribromobarbaloin pentamethyl ether (GIBSON and SIMONSEN), 559.

$C_{26}H_{28}O_2N_4$ 1:4-Di-6′-methoxy-2′-methyl-4′-quinolylpiperazine (KERMACK and SMITH), 1360.

### 26 V

$C_{26}H_{21}O_4NBr_2S_2$ Dibromo-4-di-*p*-toluenesulphonamidodiphenyls (BELL), 1076.

## $C_{27}$ Group.

$C_{27}H_{20}$ 10-Benzylacenaphthanthracene (COOK), 1095.

### 27 II

$C_{27}H_{22}O_8$ 5:7-Diacetoxy-4′-benzyloxy-3′-methoxyflavone (LOVECY, ROBINSON, and SUGASAWA), 821.

$C_{27}H_{24}N_2$ Di-*p*-tolylphenylbenzenylamidines (CHAPMAN and PERROTT), 2466.

$C_{27}H_{28}O_{12}$ Benzoylquinol tetra-acetyl glucoside (ROBERTSON and WATERS), 2732.

$C_{27}H_{30}O_3$ Substance, from sodioacetophenone and methyl iodide in benzene (RUSSELL), 320.

$C_{27}H_{32}O$ Triphenylmethyl *l*-$\beta$-octyl ether (RULE and BAIN), 1899.

$C_{27}H_{36}O_5$ Diacetylanhydrodigoxigenin (SMITH), 2480.

$C_{27}H_{38}O_7$ Diacetyldigoxigenins (SMITH), 2479, 2481.

## 27 III



## 27 IV



# $C_{28}$ Group.



## 28 III

### 28 IV



## $C_{29}$ Group.



### 29 III



## $C_{30}$ Group.



### 30 IV



### 30 V



## $C_{31}$ Group.



## $C_{32}$ Group.



### 32 IV



## $C_{33}$ Group.

### 33 V



## $C_{34}$ Group.



### 34 IV



## $C_{35}$ Group.



### 35 III



## $C_{36}$ Group.



## $C_{41}$ Group.



## $C_{42}$ Group.



## $C_{43}$ Group.



## $C_{45}$ Group.



## $C_{50}$ Group.