(64)

I

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INDEX

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AUTHOR INDEX.

K

Q

R

SUBJECT INDEX.

C

D

F

G

H

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P

Z

FORMULA INDEX.

The following index of *new* compounds of known empirical formula is arranged according to Richter's system (*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 in groups according to the number of carbon atoms (thus, C_1 group, C_2 group, etc.); according to the number of other elements besides carbon contained in the molecule (thus, C_5 IV indicates that the molecule contains five carbon atoms and four other elements); according to the nature of the elements present in the molecule (given in the above order); and 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_2 Group

C_2 II

C_2 III

C_3 Group

C_3 II

C_3 III

$C_3H_7O_2N$ *d*-Alanine, picrolonate (LEVENE and VAN SLYKE) 1912, **12,** 131

dl-Alanine, picrolonate (LEVENE and VAN SLYKE) 1912, **12,** 131

Sarcosine (BAUMANN) 1915, **21,** 563

$C_3H_7O_3N$ *dl*-Serine, picrolonate (LEVENE and VAN SLYKE) 1912, **12,** 136

$C_3H_8N_2S$ 2-Ethylpseudothiourea, picrate, picrolonate (WHEELER and JAMIESON) 1908, **4,** 117

C_3 IV

C_3H_4OClI β-Iodopropionyl chloride (JACOBS and HEIDELBERGER) 1915, **21,** 136

C_3H_6ONCl Chloroacetmethylamide (JACOBS and HEIDELBERGER) 1915, **21,** 147

C_3H_6ONI α-Iodopropionamide (JACOBS and HEIDELBERGER) 1915, **21,** 146

β-Iodopropionamide (JACOBS and HEIDELBERGER) 1915, **21,** 146

C_4 Group

C_4 II

$C_4H_5N_3$ 6-Aminopyrimidine (WHEELER and JOHNSON) 1907, **3,** 189

—, hydrochloride, picrate, sulfate (WHEELER) 1907, **3,** 292

—, picrolonate (WHEELER and JAMIESON) 1908, **4,** 114

C_4 III

$C_4H_2N_2Cl$ 2,6-Dichloropyrimidine (JOHNSON and MENGE) 1906–07, **2,** 114

$C_4H_4ON_2$ 6-Oxypyrimidine, hydrochloride, picrate, sulfate (WHEELER) 1907, **3,** 288

—, picrolonate (WHEELER and JAMIESON) 1908, **4,** 114

$C_4H_4O_2N_2$ Uracil, potassium salt (JOHNSON and CLAPP) 1908–09, **5,** 60

—, lead, mercury, potassium, and sodium salts (MYERS) 1909–10, **7,** 253

$C_4H_5ON_3$ Cytosine, acid phosphate, acid sulfate, basic sulfate, hydrochloride, sulfate (WHEELER) 1907, **3,** 293

—, picrolonate (WHEELER and JAMIESON) 1908, **4,** 113

$C_5H_5O_4N_3$ 2,6-Dioxy-3-methyl-5-nitropyrimidine (Johns) 1912, **11,** 76; 1913, **14,** 4
(Johns and Baumann) 1913–14, **16,** 139

$C_5H_6O_2N_2$ Thymine, potassium salt (Johnson and Clapp) 1908–09, **5,** 59
—, sodium, lead, mercury, and potassium salts (Myers) 1909–10, **7,** 251

$C_5H_6O_2N_4$ Formyl-2-oxy-5,6-diaminopyrimidine (Johns) 1912, **11,** 68

$C_5H_6O_3N_4$ 2-Oxy-3-methyl-5-nitro-6-aminopurine (Johns) 1912, **11,** 75
2-Oxy-5-nitro-6-methylaminopyrimidine (Johns) 1911, **9,** 164

$C_5H_7O_2N_5$ 4-Imidopseudouric acid (Levene and Senior) 1916, **25,** 618

$C_5H_7O_3N$ 2-Oxy-3-methyl-6-aminopyrimidine (3-methylcytosine), picrate (Johnson and Clapp) 1908–09, **5,** 62
2-Oxy-6-methylaminopyrimidine (Johns) 1911, **9,** 163

$C_5H_7O_5N_3$ *α*-Oxynitrohydrothymine (Johnson) 1908, **4,** 410
β-Oxynitrohydrothymine (Johnson) 1908, **4,** 414

$C_5H_8ON_4$ 2-Oxy-5-amino-6-methylaminopyrimidine (Johns) 1911, **9,** 165
2-Oxy-3-methyl-5,6-diaminopyrimidine (Johns) 1912, **11,** 77

$C_5H_9O_4N$ *d*-Glutaminic acid, picrolonate (Levene and Van Slyke) 1912, **12,** 132
dl-Glutaminic acid, picrolonate (Levene and Van Slyke) 1912, **12,** 132

$C_5H_{11}O_2N$ *d*-Valine, picrolonate (Levene and Van Slyke) 1912, **12,** 136
dl-Valine, picrolonate (Levene and Van Slyke) 1912, **12,** 137

$C_5H_{11}O_4N$ *d*-Lyxosimine (Levene and La Forge) 1915, **22,** 333
Ribosimine (Levene and La Forge) 1915, **20,** 440

C_5 IV

$C_5H_4ON_4S$ 2-Oxy-8-thiopurine (Johns) 1915, **21,** 321

$C_5H_4ON_4S_2$ 2,8-Dithio-6-oxypurine (Johns and Hogan) 1913, **14,** 305

$C_5H_4O_2N_4S$ 2-Thio-6,8-dioxypurine (Johns and Hogan) 1913, **14,** 302

$C_5H_5O_2N_2Br$ 3-Methyl-5-bromouracil (JOHNSON and CLAPP) 1908–09, **5**, 64

$C_5H_6O_2N_4S$ 2-Methylmercapto-4-amino-5-nitroso-6-oxypyrimidine (JOHNS and BAUMANN) 1913, **14**, 384

$C_5H_8ON_4S$ 2-Methylmercapto-4,5-diamino-6-oxypyrimidine (JOHNS and BAUMANN) 1913, **14**, 385

$C_5H_8O_2N_2I_2$ Methylene bisiodoacetamide (JACOBS and HEIDELBERGER) 1915, **21**, 150

$C_5H_{10}O_2NCl$ Chloroacetylaminoisopropanol (JACOBS and HEIDELBERGER) 1915, **21**, 424

C_6 Group

C_6 II

$C_6H_8O_7$ α,α_1-Anhydro-idosaccharic acid (LEVENE and LA FORGE) 1915, **21**, 357

α,α_1-Anhydromucic acid (LEVENE and LA FORGE) 1915, **22**, 334

α,α_1-*l*-Anhydrosaccharic acid (LEVENE and LA FORGE) 1915, **21**, 358

Chondrosic acid (LEVENE and LA FORGE) 1914, **18**, 128; 1915, **20**, 438

Epichondrosic acid (LEVENE and LA FORGE) 1915, **20**, 439

l-Epi-isosaccharic acid (LEVENE and LA FORGE) 1915, **20**, 442; 1915, **21**, 358

$C_6H_{10}O_5$ Mycodextran (DOX and NEIDIG) 1914, **18**, 172

Mycogalactan (DOX and NEIDIG) 1914, **19**, 235

$C_6H_{10}O_8$ Acid from oxidation of chondrosin (LEVENE and LA FORGE) 1913, **15**, 78

C_6 III

$C_6H_6ON_4$ 2-Oxy-1-methylpurine, picrate (JOHNS) 1912, **11**, 78

2-Oxy-8-methylpurine, picrate (JOHNS) 1912, **11**, 71

2-Oxy-9-methylpurine (JOHNS) 1911, **9**, 166

$C_6H_6O_2N_2$ "Urocanic acid" (β-imidazole-4(5)-acrylic acid), picrate, and picrolonate (HUNTER) 1912, **11**, 537

$C_6H_6O_2N_4$ 2,8-Dioxy-1-methylpurine (JOHNS) 1912, **11**, 398

2,6-Dioxy-9-methylpurine (JOHNS) 1911, **9**, 167

$C_6H_9O_2N_3$ 2-Amino-5-ethoxy-6-oxypyrimidine (JOHNSON and McCOLLUM) 1905–06, **1**, 448
α-Cyanobutyrylurea (JOHNSON and JOHNS) 1905–06, **1**, 317
2,4-Dioxy-5-ethyl-6-aminopyrimidine (JOHNSON and JOHNS) 1905–06, **1**, 317
2-Oxy-5-ethoxy-6-aminopyrimidine (5-ethoxycytosine) (JOHNSON and McCOLLUM) 1905–06, **1**, 445

$C_6H_9O_5N_3$ 1-Methyl-5-nitro-4-oxyhydrothymine (JOHNSON and CLAPP) 1908–09, **5**, 58
3-Methyl-5-nitro-4-oxyhydrothymine (JOHNSON and CLAPP) 1908–09, **5**, 58

$C_6H_{10}ON_4$ 2-Oxy-5-amino-6-ethylaminopyrimidine (JOHNS and HENDRIX) 1914, **19**, 28
2-Oxy-3,4-dimethyl-5,6-diaminopyrimidine (JOHNS and BAUMANN) 1913–14, **16**, 140
2-Oxy-3-methyl-5-amino-6-methylaminopyrimidine (JOHNS) 1913, **14**, 4
2-Oxy-4-methyl-5-amino-6-methylaminopyrimidine (JOHNS) 1912, **11**, 397

$C_6H_{13}O_2N$ *d*-Isoleucine, picrolonate (LEVENE and VAN SLYKE) 1912, **12**, 133
d-Leucine, picrolonate (LEVENE and VAN SLYKE) 1912, **12**, 134
l-Leucine, picrolonate (LEVENE and VAN SLYKE) 1912, **12**, 133
dl-Leucine, picrolonate (LEVENE and VAN SLYKE) 1912, **12**, 134

$C_6H_{13}O_3N$ Chondrosaminic acid, reduction product (LEVENE and LA FORGE) 1915, **20**, 437

$C_6H_{13}O_5N$ Chondrosamine (LEVENE and LA FORGE) 1913, **15**, 158; 1914, **18**, 126, 240

$C_6H_{13}O_6N$ Chondrosaminic acid (LEVENE and LA FORGE) 1915, **20**, 436
Hexosaminic acid from ribose (LEVENE and LA FORGE) 1915, **20**, 441
d-Lyxohexosaminic acid (LEVENE and LA FORGE) 1915, **22**, 333
Xylohexosaminic acid (LEVENE and LA FORGE) 1915, **21**, 354

$C_6HO_9P_1$ Inosite monophosphate, barium salt (ANDERSON) 1914, **18**, 444

$C_6H_{15}O_{15}P_3$ Inosite triphosphate, barium salts, strychnine salt (ANDERSON) 1915, **20**, 470

$C_6H_{15}O_{15}P_4$ Inosite dipyrophosphoric acid ester, barium salt (ANDERSON) 1912, **12**, 109

C_6 V

C_7 Group

C_7 II

C_7 III

C_7 IV

C_8 Group

C_8 II

$C_8H_{10}O_8$ *d*-α,α-Mannooctaric acid double lactone (PEIRCE) 1915, **23**, 337

$C_8H_{17}N$ Coniine, picrolonate (WARREN and WEISS) 1907, **3**, 333

C_8 III

$C_8H_7O_4N_3$ Glyoxylic acid *p*-nitrophenylhydrazone (DAKIN) 1908, **4**, 237

$C_8H_8OBr_2$ *p*-Bromophenoxyethyl bromide (JACOBS and HEIDELBERGER) 1915, **21**, 444

$C_8H_9O_4N$ 2-Methoxy-5-nitrobenzyl alcohol (JACOBS and HEIDELBERGER) 1915, **20**, 675

$C_8H_{10}ON_4$ 2-Oxy-6-methyl-9-ethylpurine (JOHNS and BAUMANN) 1913, **15**, 517

2-Oxy-6,8,9-trimethylpurine (JOHNS) 1912, **12**, 93

$C_8H_{10}O_2N_4$ 2,8-Dioxy-6-methyl-9-ethylpurine (JOHNS and BAUMANN) 1913, **15**, 124

2,8-Dioxy-1,7,9-trimethylpurine (JOHNS) 1914, **17**, 4

$C_8H_{10}O_4N_2$ 2,6-Dioxy-4-hydroxymethyl-5-methylpyrimidine acetate (JOHNSON and CHERNOFF) 1913, **14**, 318

Thymine-4-ethyl carboxylate (JOHNSON) 1907, **3**, 306

$C_8H_{12}O_2N_4$ Acetyl-2-oxy-4-methyl-5-amino-6-methylaminopyrimidine (JOHNS) 1912, **12**, 92

$C_8H_{12}O_3N_2$ 2,6-Dioxy-4-ethoxymethyl-5-methylpyrimidine (JOHNSON and CHERNOFF) 1913, **14**, 317

$C_8H_{13}N_3S$ 2-Ethylmercapto-5-ethyl-6-aminopyrimidine (JOHNSON and MENGE) 1906–07, **2**, 111

2-Ethylmercapto-6-ethylaminopyrimidine (JOHNS and HENDRIX) 1914, **19**, 27

2-Ethylmercapto-4-methyl-6-methylaminopyrimidine (JOHNS) 1912, **11**, 395

$C_8H_{22}O_{24}P_6$ Dimethylphytate (ANDERSON) 1914, **17**, 188

C_8 IV

$C_8H_6OCl_3Br$ 2,4,6-Trichlorophenoxyethyl bromide (JACOBS and HEIDELBERGER) 1915, **21**, 442

$C_8H_6O_4NBr$ *o*-Nitrophenyl bromoacetate (JACOBS and HEIDELBERGER) 1915, **21**, 469

$C_8H_7O_3N_2Cl$ *p*-Nitrochloroacetylaniline (JACOBS and HEIDELBERGER) 1915, **21**, 112

C_9 Group

C_9 II

$C_9H_8O_2$ Benzylglyoxal (DAKIN and DUDLEY) 1914, **18**, 43

$C_9H_{12}O_3$ 2,4-Dimethoxybenzyl alcohol (JACOBS and HEIDELBERGER) 1915, **20**, 678

$C_9H_{16}O_4$ Ethyl methylethoxyacetoacetate (JOHNSON and CHERNOFF) 1913, **14**, 315

C_9 III

$C_9H_6O_2Br_4$ Tribromo-*p*-cresyl bromoacetate (JACOBS and HEIDELBERGER) 1915, **21**, 469

$C_9H_7OBr_5$ Tetrabromo-*p*-methylphenoxyethyl bromide (JACOBS and HEIDELBERGER) 1915, **21**, 445

$C_9H_8OBr_4$ Tribromo-*p*-methylphenoxyethyl bromide (tribromo-*p*-cresoxyethyl bromide) (JACOBS and HEIDELBERGER) 1915, **21**, 444

C_9H_8OS 1-Phenyl-2-thiohydantoin (BRAUTLECHT) 1911–12, **10**, 143

C_9H_9OI *p*-Methylphenacyl iodide (JACOBS and HEIDELBERGER) 1915, **21**, 456

p-Tolyl iodomethyl ketone (JACOBS and HEIDELBERGER) 1915, **21**, 456

$C_9H_{11}OBr$ *m*-Methylphenoxyethyl bromide (JACOBS and HEIDELBERGER) 1915, **21**, 440

$C_9H_{11}O_2N$ Phenylalanine (JOHNSON and O'BRIEN) 1912, **12**, 212

—, picrolonate (LEVENE and VAN SLYKE) 1912, **12**, 136

l-Phenylalanine, picrolonate (LEVENE and VAN SLYKE) 1912, **12**, 135

$C_9H_{11}O_2N_3$ Propionic aldehyde *p*-nitrophenylhydrazone (DAKIN) 1908, **4**, 236

$C_9H_{11}O_2Cl$ 2,3-Dimethoxybenzyl chloride (JACOBS and HEIDELBERGER) 1915, **20**, 677

$C_9H_{11}O_3N$ Tyrosine, picrolonate (LEVENE and VAN SLYKE) 1912, **12**, 136

$C_9H_{12}ON_4$ 2-Oxy-6,8-dimethyl-9-ethylpurine (JOHNS and BAUMANN) 1913, **15**, 518

$C_9H_{13}ON$ Aminoethyl *o*-tolyl ether (*o*-methylphenoxyethylamine) (JACOBS and HEIDELBERGER) 1915, **21**, 416

α-*p*-Tolyl-*α*-oxyethylamine (JACOBS and HEIDELBERGER) 1915, **21**, 432

$C_9H_{15}N_3S$ 2-Ethylmercapto-4-methyl-6-ethylaminopyrimidine (JOHNS and BAUMANN) 1913, **15**, 121

C_9 IV

$C_9H_8O_4NCl$ 3-Nitro-4-acetoxybenzyl chloride (Jacobs and Heidelberger) 1915, **20,** 672

3-Nitro-6-acetoxybenzyl chloride (Jacobs and Heidelberger) 1915, **20,** 673

$C_9H_8O_4NBr$ Bromoethyl *p*-nitrobenzoate (Jacobs and Heidelberger) 1915, **21,** 450

$C_9H_8O_4NI$ 3-Nitro-4-acetoxybenzyl iodide (Jacobs and Heidelberger) 1915, **20,** 672

$C_9H_8O_5N_4S_2$ 6-Oxypurine-2,8-dithioglycollic acid (Johns and Hogan) 1913, **14,** 306

$C_9H_9O_3NCl_2$ 3,5-Dichlorotyrosine (Wheeler, Hoffman, and Johnson) 1911–12, **10,** 153

$C_9H_{10}ONCl$ Chloroacetylbenzylamine (Jacobs and Heidelberger) 1915, **20,** 686

Chloroacetyl-*m*-toluidine (Jacobs and Heidelberger) 1915, **21,** 108

$C_9H_{10}O_2NCl$ *o*-Chloroacetylaminobenzyl alcohol (Jacobs and Heidelberger) 1915, **21,** 138

Chloroacetyl-*o*-anisidine (Jacobs and Heidelberger) 1915, **21,** 134

Chloroacetyl-*p*-anisidine (Jacobs and Heidelberger) 1915, **21,** 137

$C_9H_{10}O_2NBr$ 2-Bromoethoxybenzamide (Jacobs and Heidelberger) 1915, **21,** 449

$C_9H_{10}O_3N_2Hg$ *p*-Methylnitrosoaminophenylmercuric acetate (Jacobs and Heidelberger) 1915, **20,** 519

$C_9H_{11}O_2NS$ Thiotyrosine and hydrochloride (Johnson and Brautlecht) 1912, **12,** 194

$C_9H_{11}O_2NHg$ 3-Methyl-4-aminophenylmercuric acetate (Jacobs and Heidelberger) 1915, **20,** 519

$C_9H_{12}O_3N_2S$ 2-Methylmercapto-4-carbethoxy-5-methyl-6-oxypyrimidine (Johnson) 1907, **3,** 302

$C_9H_{17}O_2N_6Cl$ Chloroacetylurea and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 151

$C_9H_{18}ON_5Cl$ Chloroacetmethylamide and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 148

$C_9H_{18}ON_5I$ β-Iodopropionamide and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 147

$C_9H_{18}O_2N_5Cl$ Oxymethylchloroacetamide and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 406

$C_9H_{18}N_4ClBr$ γ-Chloropropylhexamethylenetetraminium bromide (Jacobs and Heidelberger) 1915, **21,** 465

$C_9H_{19}ON_4I$ γ-Oxypropylhexamethylenetetraminium iodide (JACOBS and HEIDELBERGER) 1915, **21,** 466

$C_9H_{20}O_2NCl$ Propionyl-α-methylcholine chloride (propionyl-β-methylethoxytrimethylammonium chloride), chloroplatinate, and chloroaurate (MENGE) 1912–13, **13,** 105

C_9 V

C_9H_9ONClI 5-Iodochloroacetyl-o-toluidine (JACOBS and HEIDELBERGER) 1915, **21,** 111

C_{10} Group

C_{10} II

$C_{10}H_{10}O_3$ p-Methylphenylpyruvic acid (WAKEMAN and DAKIN) 1911, **9,** 149

$C_{10}H_{10}O_4$ p-Methoxyphenylpyruvic acid (WAKEMAN and DAKIN) 1911, **9,** 150

$C_{10}H_{12}O_4$ Oxyethyl anisate (JACOBS and HEIDELBERGER) 1915, **21,** 470

$C_{10}H_{12}N_2$ Nicotine, picrolonate (WARREN and WEISS) 1907, **3,** 333

C_{10} III

$C_{10}H_7O_3N$ γ-Hydroxy-β-carboxyquinoline (HOMER) 1914, **17,** 514

$C_{10}H_9ON_3$ 2-Anilino-6-oxypyrimidine (JOHNSON and JOHNS) 1905–06, **1,** 314

$C_{10}H_9O_4N_3$ 4-p-Nitrobenzylhydantoin (JOHNSON and BRAUTLECHT) 1912, **12,** 188

$C_{10}H_{10}O_2N_2$ d-Benzylhydantoin (DAKIN and DUDLEY) 1914, **17,** 35

l-Benzylhydantoin (DAKIN and DUDLEY) 1914, **17,** 36

Phenyldihydrouracil (DAKIN) 1910–11, **8,** 38

$C_{10}H_{10}O_3N_2$ Tyrosinehydantoin (JOHNSON and BRAUTLECHT) 1912, **12,** 187

d-p-Hydroxybenzylhydantoin (DAKIN) 1910–11, **8,** 28

l-p-Hydroxybenzylhydantoin (DAKIN) 1910–11, **8,** 31

dl-p-Hydroxybenzylhydantoin (DAKIN) 1910–11, **8,** 30

$C_{10}H_{16}O_7N_4$ Vicine (LEVENE and SENIOR) 1916, **25**, 611

$C_{10}H_{19}O_2Br$ *sec.*-Octyl bromoacetate (JACOBS and HEIDELBERGER) 1915, **21**, 468

C_{10} IV

$C_{10}H_7O_2N_2Cl$ *α*-Chlorobenzalhydantoin (WHEELER, HOFFMAN, and JOHNSON) 1911–12, **10**, 156

$C_{10}H_7O_2N_2Br$ *α*-Bromobenzalhydantoin (WHEELER, HOFFMAN, and JOHNSON) 1911–12, **10**, 154

$C_{10}H_8O_2N_2S$ *α*-Mercaptobenzalhydantoin (WHEELER, HOFFMAN, and JOHNSON) 1911–12, **10**, 155

$C_{10}H_8O_3N_2Cl_2$ 3,5-Dichlorotyrosinehydantoin (WHEELER, HOFFMAN, and JOHNSON) 1911–12, **10**, 152

$C_{10}H_9O_2NCl_2$ *m*-Chloroacetylaminomethylbenzoyl chloride (JACOBS and HEIDELBERGER) 1915, **20**, 693

$C_{10}H_9O_3NCl_2$ *p*-Chloroacetylaminophenyl chloroacetate (JACOBS and HEIDELBERGER) 1915, **21**, 134

$C_{10}H_{10}ON_2S$ 2-Thio-4-benzylhydantoin (JOHNSON and O'BRIEN) 1912, **12**, 211

$C_{10}H_{10}O_2NCl$ *m*-Chloroacetylaminoacetophenone (JACOBS and HEIDELBERGER) 1915, **21**, 140

ω-Chloroacetylaminoacetophenone (JACOBS and HEIDELBERGER) 1915, **21**, 472

$C_{10}H_{10}O_2NBr$ *p*-Acetaminophenyl bromomethyl ketone (*p*-acetaminophenacyl bromide) (JACOBS and HEIDELBERGER) 1915, **21**, 459

$C_{10}H_{10}O_2N_2S$ Thiotyrosinehydantoin (JOHNSON and BRAUTLECHT) 1912, **12**, 190

$C_{10}H_{10}O_3NCl$ Chloroacetylaminomethyl benzoate (JACOBS and HEIDELBERGER) 1915, **21**, 406

$C_{10}H_{11}O_2N_2Cl$ Chloroacetylbenzylurea (JACOBS and HEIDELBERGER) 1915, **21**, 152

m-Chloroacetylaminomethylbenzamide (JACOBS and HEIDELBERGER) 1915, **20**, 694

$C_{10}H_{11}O_3N_2Br$ *γ*-Bromopropyl-*p*-nitrobenzamide (JACOBS and HEIDELBERGER) 1915, **21**, 421

$C_{10}H_{11}O_4N_2Cl$ 2-Methoxy-5-nitrochloroacetylbenzylamine (JACOBS and HEIDELBERGER) 1915, **20**, 691

$C_{10}H_{12}ONCl$ Chloroacetyl-*o*-methylbenzylamine (JACOBS and HEIDELBERGER) 1915, **20**, 686

$C_{10}H_{12}ONCl_3$ 2,4,6-Trichlorophenoxyethyldimethylamine (JACOBS and HEIDELBERGER) 1915, **21**, 443

$C_{10}H_{12}O_2NCl$ Chloroacetylphenylaminoethanol (JACOBS and HEIDELBERGER) 1915, **21**, 418

α-Phenyl-*α*-oxy-*β*-chloroacetylaminoethane (JACOBS and HEIDELBERGER) 1915, **21**, 431

C_{11} Group

C_{11} II

C_{11} III

$C_{11}H_{12}O_3N_2$ *p*-Methoxybenzylhydantoin (WHEELER, HOFFMAN, and JOHNSON) 1911–12, **10**, 156

$C_{11}H_{13}OBr$ Mesityl bromomethyl ketone (2,4,6-trimethylphenyl bromide) (JACOBS and HEIDELBERGER) 1915, **21**, 459

$C_{11}H_{13}O_2Cl$ 2-Acetoxy-3,5-dimethylbenzyl chloride (*o*-acetoxymesityl pseudochloride) (JACOBS and HEIDELBERGER) 1915, **20**, 670

$C_{11}H_{13}O_3N$ Phenylpropionylglycocoll (DAKIN) 1908, **4**, 431

$C_{11}H_{13}O_4N$ Phenyl-β-oxypropionylglycocoll (DAKIN) 1908–09, **5**, 308

$C_{11}H_{14}O_3N$ *p*-Methyl-α-uramidophenylpropionic acid (DAKIN) 1911, **9**, 159

$C_{11}H_{15}O_2N_3$ Isovaleric aldehyde *p*-nitrophenylhydrazone (DAKIN) 1908, **4**, 237

Methylisopropyl ketone *p*-nitrophenylhydrazone (DAKIN) 1908, **4**, 238

$C_{11}H_{15}O_5N_5$ Adenine hexose compound (MANDEL and DUNHAM) 1912, **11**, 85

$C_{11}H_{15}O_6N_3$ *d*-Lyxose *p*-nitrophenylhydrazone (LEVENE and LA FORGE) 1914, **18**, 326

$C_{11}H_{15}O_6N_5$ Guanine hexoside from thymus nucleic acid (LEVENE and JACOBS) 1912, **12**, 378

$C_{11}H_{21}N_5O_5$ Arginine-glutaminic acid dipeptide from gelatin (LEVENE and BIRCHARD) 1912–13, **13**, 285

C_{11} IV

$C_{11}H_8O_3N_2S$ 2-Thio-4-piperonalhydantoin (JOHNSON and O'BRIEN) 1912, **12**, 213

$C_{11}H_9ON_2Cl$ 6-Chloroacetylaminoquinoline and hydrochloride (JACOBS and HEIDELBERGER) 1915, **21**, 143

$C_{11}H_{10}O_2N_2S$ 2-Thio-4-anisalhydantoin (JOHNSON and O'BRIEN) 1912, **12**, 212

$C_{11}H_{10}O_3N_2S$ 1-Phenyl-2-thiohydantoin-4-acetic acid (BRAUTLECHT) 1911–12, **10**, 145

$C_{11}H_{11}O_2N_3S$ 1-Phenyl-2-thiohydantoin-4-acetamide (BRAUTLECHT) 1911–12, **10**, 145

$C_{11}H_{11}O_3NBr_2$ Phenyl-α, β-dibromopropionylglycocoll (DAKIN) 1908–09, **5**, 307

$C_{11}H_{11}O_5N_2Cl$ 2-Acetoxy-5-nitrochloroacetylbenzylamine (JACOBS and HEIDELBERGER) 1915, **20**, 690

Chloroacetylaminoethyl *m*-nitrobenzoate (JACOBS and HEIDELBERGER) 1915, **21**, 411

Chloroacetylaminoethyl *o*-nitrobenzoate (JACOBS and HEIDELBERGER) 1915, **21**, 410

Chloroacetylaminoethyl *p*-nitrobenzoate (JACOBS and HEIDELBERGER) 1915, **21**, 411

C_{11} V

C_{12} Group

C_{12} II

$C_{12}H_{12}O_2$ β-Methoxy-α-naphthobenzyl alcohol (JACOBS and HEIDELBERGER) 1915, **20,** 674

$C_{12}H_{20}N_2$ p-Aminodipropylaniline (JACOBS and HEIDELBERGER) 1915, **21,** 116

$C_{12}H_{25}I$ Dodecyl iodide (LEVENE and WEST) 1914, **18,** 478

C_{12} III

$C_{12}H_{11}OBr$ α-Naphthyl bromoethyl ether (α-naphthoxyethyl bromide) (JACOBS and HEIDELBERGER) 1915, **21,** 441

$C_{12}H_{13}ON_3$ 2-Oxy-3-methyl-6-methylphenylaminopyrimidine (JOHNSON and CLAPP) 1908–09, **5,** 65

$C_{12}H_{13}O_4Br$ Bromoethyl acetyl-p-cresotinate (JACOBS and HEIDELBERGER) 1915, **21,** 452

$C_{12}H_{13}O_5Cl$ Chloroacetyloxyethyl anisate (JACOBS and HEIDELBERGER) 1915, **21,** 471

$C_{12}H_{15}O_3N$ Acetyl-p-methylphenylalanine (DAKIN) 1911, **9,** 158

$C_{12}H_{16}O_3N_2$ 3-Nitro-4-oxybenzylpiperidine (JACOBS and HEIDELBERGER) 1915, **20,** 669

$C_{12}H_{18}ON_2$ 3-Amino-4-oxybenzylpiperidine and hydrochloride (JACOBS and HEIDELBERGER) 1915, **20,** 669

p-Nitrosodipropylaniline (JACOBS and HEIDELBERGER) 1915, **21,** 115

$C_{12}H_{21}NO_{11}$ Chondrosin (LEVENE and LA FORGE) 1913, **15,** 73; 1914, **18,** 239

$C_{12}H_{32}O_{41}P_{10}$ Di-inosite triphosphoric acid ester and pentabarium salt (ANDERSON) 1912, **12,** 112

C_{12} IV

$C_{12}H_{10}ONBr$ β-(ω-Bromoacetyl)-quinaldine (JACOBS and HEIDELBERGER) 1915, **21,** 463

$C_{12}H_{11}O_2N_2Cl$ p-Nitrobenzylpyridinium chloride (JACOBS and HEIDELBERGER) 1915, **20,** 667

$C_{12}H_{12}O_2N_2S$ 2-Thio-3-acetyl-4-benzylhydantoin (JOHNSON and O'BRIEN) 1912, **12,** 211

$C_{12}H_{12}O_3N_2S$ 1-Phenyl-2-thiohydantoin-4-propionic acid (BRAUTLECHT) 1911–12, **10,** 146

$C_{12}H_{12}N_3SI$ 2-Ethylmercapto-5-iodo-6-anilinopyrimidine (JOHNSON and JOHNS) 1905–06, **1,** 314

C_{12} V

$C_{12}H_{13}O_3NClBr$ Bromoethyl *m*-chloroacetylaminoethylbenzoate (JACOBS and HEIDELBERGER) 1915, **21**, 452

$C_{12}H_{25}O_2NClBr$ α-Bromoisocapronyl-α-methylcholine chloride (α-bromoisocapronyl-β-methylethoxytrimethylammonium chloride) and chlorplatinate (MENGE) 1912–13, **13**, 107

C_{13} Group

C_{13} II

$C_{13}H_{26}O_2$ Tridecylic acid (LEVENE and WEST) 1914, **18**, 465
(LEVENE, WEST, ALLEN, and VAN DER SCHEER) 1915, **23**, 73

$C_{13}H_{27}I$ Tridecylic iodide (LEVENE, WEST, and VAN DER SCHEER) 1915, **20**, 528

C_{13} III

$C_{13}H_{11}O_3Cl$ 2-Oxy-3-carbomethoxynaphthobenzyl chloride (JACOBS and HEIDELBERGER) 1915, **20**, 682

$C_{13}H_{18}N_4Cl_2$ *o*-Chlorobenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20**, 665
p-Chlorobenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20**, 665

$C_{13}H_{19}O_8N_3$ *d*-β-Mannoheptose *p*-nitrophenylhydrazone (PEIRCE) 1915, **23**, 333

$C_{13}H_{20}ON_2$ *o*-Aminophenoxyethylpiperidine and hydrochloride (JACOBS and HEIDELBERGER) 1915, **21**, 448

$C_{13}H_{20}O_7N_2$ *d*-β-Mannoheptonic acid phenylhydrazide (PEIRCE) 1915, **23**, 331

C_{13} IV

$C_{13}H_{14}O_3NCl$ Chloroacetylaminoethyl cinnamate (JACOBS and HEIDELBERGER) 1915, **21**, 415

$C_{13}H_{14}O_3N_2S_2$ *p*-Ethylxanthogenate-4-benzylhydantoin (JOHNSON and BRAUTLECHT) 1912, **12**, 189

$C_{13}H_{14}O_5NCl$ Chloroacetylaminoethyl acetylsalicylate (JACOBS and HEIDELBERGER) 1915, **21**, 414
1,2-Diacetoxychloroacetylbenzylamine (JACOBS and HEIDELBERGER) 1915, **20**, 691

$C_{13}H_{15}O_5N_2Cl$ β-Chloroacetylamino-γ-butyl *p*-nitrobenzoate (Jacobs and Heidelberger) 1915, **21,** 429

δ-Chloroacetylaminobutyl *p*-nitrobenzoate (Jacobs and Heidelberger) 1915, **21,** 428

Chloroacetylethylaminoethyl *p*-nitrobenzoate (Jacobs and Heidelberger) 1915, **21,** 417

$C_{13}H_{16}ONCl_3$ 2,4,6-Trichlorophenoxyethylpiperidine and hydrochloride (Jacobs and Heidelberger) 1915, **21,** 443

$C_{13}H_{17}ON_4Br_3$ 2-Oxy-3,5-dibromobenzylhexamethylenetetraminium bromide (Jacobs and Heidelberger) 1915, **20,** 670

$C_{13}H_{17}O_4N_6Cl$ 2,4-Dinitrobenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 667

$C_{13}H_{18}O_2N_5Cl$ *m*-Nitrobenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 666

o-Nitrobenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 666

p-Nitrobenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 666

$C_{13}H_{18}O_3N_5Cl$ 2-Oxy-5-nitrobenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 671

$C_{13}H_{18}O_4NCl$ γ-Chloroacetylaminopropyl anisate (γ-chloroacetylaminopropyl *p*-methoxybenzoate) (Jacobs and Heidelberger) 1915, **21,** 423

$C_{13}H_{18}N_4ClBr$ *o*-Bromobenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 665

p-Bromobenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 665

$C_{13}H_{18}N_4BrI$ *o*-Iodobenzylhexamethylenetetraminium bromide (Jacobs and Heidelberger) 1915, **21,** 467

p-Iodobenzylhexamethylenetetraminium bromide (Jacobs and Heidelberger) 1915, **20,** 665

$C_{13}H_{20}O_2NCl$ Benzoyl-α-methylcholine chloride (benzoyl-β-methylethoxytrimethylammonium chloride), chloroplatinate, and chloroaurate (Menge) 1912–13, **13,** 99

$C_{13}H_{24}ON_5Cl$ Chloroacetpiperidide and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 150

$C_{13}H_{26}O_2N_5Cl$ γ-Chloroacetylamino-β-methyl-β-butanol and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 431

Chloroacetylaminomethylmethylethyl carbinol and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 430

γ-Chloroacetylamino-β-pentanol and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 430

C_{14} Group

C_{14} II

$C_{14}H_{26}O_4$ Undecylmalonic acid (Levene, West, Allen, and van der Scheer) 1915, **23,** 73

C_{14} III

$C_{14}H_{11}O_4N_3$ Phenylglyoxylic acid *p*-nitrophenylhydrazone (Dakin and Dudley) 1913, **15,** 139

$C_{14}H_{18}O_4N_2$ 3-Nitro-4-acetoxybenzylpiperidine and hydrochloride (Jacobs and Heidelberger) 1915, **20,** 669

$C_{14}H_{18}N_5Cl$ *o*-Cyanobenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 666

p-Cyanobenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 666

$C_{14}H_{21}N_4Cl$ *m*-Methylbenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 663

o-Methylbenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 663

p-Methylbenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 663

$C_{14}H_{21}N_4I$ Phenylethylhexamethylenetetraminium iodide (Jacobs and Heidelberger) 1915, **21,** 467

C_{14} IV

$C_{14}H_{12}ON_3Cl$ *p*-Chloroacetylaminoazobenzene (Jacobs and Heidelberger) 1915, **21,** 117

$C_{14}H_{12}O_2N_3Cl$ Benzeneazo-*m*-chloroacetylaminophenol (Jacobs and Heidelberger) 1915, **21,** 133

$C_{14}H_{12}O_3N_2Hg$ 4-*p*-Oxybenzeneazophenylmercuric acetate (Jacobs and Heidelberger) 1915, **20,** 516

$C_{14}H_{20}O_3N_5Cl$ 2-Methoxy-5-nitrobenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20,** 676

3-Nitro-4-methoxybenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20,** 676

$C_{14}H_{20}O_5N_3Cl$ Chloroacetylaminoethyl *p*-nitrobenzoate and trimethylamine (JACOBS and HEIDELBERGER) 1915, **21,** 412

$C_{14}H_{21}ON_2Cl$ *p*-Chloroacetylaminodipropylaniline (JACOBS and HEIDELBERGER) 1915, **21,** 116

$C_{14}H_{21}ON_4Br$ Phenoxyethylhexamethylenetetraminium bromide (JACOBS and HEIDELBERGER) 1915, **21,** 440

$C_{14}H_{21}ON_4Cl$ *o*-Methoxybenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20,** 673

p-Methoxybenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20,** 673

$C_{14}H_{22}O_2NCl$ Phenylacetyl-γ-homocholine chloride, chloroplatinate, and chloroaurate (MENGE) 1912–13, **13,** 104

Phenylacetyl-α-methylcholine chloride (phenylacetyl-β-methylethoxytrimethylammonium chloride), chloroplatinate, and chloroaurate (MENGE) 1912–13, **13,** 101

Phenylacetyl-β-methylcholine chloride (phenylacetyl-β-oxypropyltrimethylammonium chloride), chloroplatinate, and chloroaurate (MENGE) 1912–13, **13,** 102

C_{14} V

$C_{14}H_{19}ON_5ClBr$ *p*-Bromochloroacetylaniline and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 110

$C_{14}H_{19}ON_5ClI$ *m*-Iodochloroacetylaniline and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 111

C_{15} Group

C_{15} II

$C_{15}H_{12}O_5$ Baptisol (CLARK) 1915, **21,** 650

C_{15} III

$C_{15}H_{14}O_5N_6$ Glyceric aldehyde *p*-nitrophenylhydrazone (Dakin and Dudley) 1913, **15,** 138

$C_{15}H_{18}O_6N_2$ Diazobenzalglucosaminic acid ethyl ester (Levene and La Forge) 1915, **21,** 349

$C_{15}H_{23}N_4Cl$ 3,5-Dimethylbenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 663

C_{15} IV

$C_{15}H_{11}O_5N_2Cl$ *o*-Chloroacetylaminophenyl *p*-nitrobenzoate (Jacobs and Heidelberger) 1915, **21,** 132

$C_{15}H_{12}O_3NCl$ *o*-Chloroacetylaminophenyl benzoate (Jacobs and Heidelberger) 1915, **21,** 131

$C_{15}H_{13}O_3NHg$ 4-*o*-Oxybenzylideneaminophenylmercuric acetate (Jacobs and Heidelberger) 1915, **20,** 518

$C_{15}H_{14}O_3NCl$ *β*-Acetoxy-*α*-chloroacetylnaphthobenzylamine (Jacobs and Heidelberger) 1915, **20,** 689

Chloroacetylaminoethyl *β*-naphthoate (Jacobs and Heidelberger) 1915, **21,** 410

$C_{15}H_{14}O_3NI$ *β*-Acetoxy-*α*-iodoacetylnaphthobenzylamine (Jacobs and Heidelberger) 1915, **20,** 689

$C_{15}H_{14}O_3N_2Hg$ 3-Methyl-4-*p*-oxybenzeneazophenylmercuric acetate (Jacobs and Heidelberger) 1915, **20,** 520

$C_{15}H_{15}ON_2Cl$ *β*-Chloroacetyl-*α*,*α*-phenylbenzylhydrazine (Jacobs and Heidelberger) 1915, **21,** 474

$C_{15}H_{19}O_2N_4Br_3$ 2-Acetoxy-3,5-dibromobenzylhexamethylenetetraminium bromide (Jacobs and Heidelberger) 1915, **20,** 671

4-Acetoxy-3,5-dibromobenzylhexamethylenetetraminium bromide (Jacobs and Heidelberger) 1915, **20,** 671

$C_{15}H_{20}ON_4Br_4$ Tribromo-*p*-methylphenoxyethylhexamethylenetetraminium bromide (Jacobs and Heidelberger) 1915, **21,** 445

$C_{15}H_{20}O_4N_5Br$ *p*-Nitrobenzoyloxyethylhexamethylenetetraminium bromide (Jacobs and Heidelberger) 1915, **21,** 450

$C_{15}H_{20}O_4N_5I$ 3-Nitro-4-acetoxybenzylhexamethylenetetraminium iodide (Jacobs and Heidelberger) 1915, **20,** 673

p-Nitrobenzoyloxyethylhexamethylenetetraminium iodide (Jacobs and Heidelberger) 1915, **21,** 451

$C_{15}H_{21}ON_4Br$ *p*-Methylphenacylhexamethylenetetraminium bromide (JACOBS and HEIDELBERGER)
1915, **21**, 456

$C_{15}H_{21}ON_4I$ *p*-Methylphenacylhexamethylenetetraminium iodide (JACOBS and HEIDELBERGER)
1915, **21**, 457

$C_{15}H_{21}O_2N_4Br$ Benzoyloxyethylhexamethylenetetraminium bromide (JACOBS and HEIDELBERGER)
1915, **21**, 450

p-Methoxyphenacylhexamethylenetetraminium bromide (JACOBS and HEIDELBERGER)
1915, **21**, 462

$C_{15}H_{21}O_3N_2Cl$ Diethylaminoethyl *p*-chloroacetylaminobenzoate (chloroacetylnovocain) (JACOBS and HEIDELBERGER)
1915, **21**, 139

$C_{15}H_{21}O_3N_4Cl$ 3-Carbomethoxy-4-oxybenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER)
1915, **20**, 681

2-Methoxy-5-carboxybenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER)
1915, **20**, 682

2-Oxy-3-carboxy-5-methylbenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER)
1915, **20**, 681

2-Oxy-3-methoxy-5-aldehydobenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER)
1915, **20**, 683

$C_{15}H_{21}O_3N_6Cl$ *m*-Nitrochloroacetyl-*p*-toluidine and hexamethylenetetramine (JACOBS and HEIDELBERGER)
1915, **21**, 112

$C_{15}H_{22}ON_5Cl$ *o*-Acetaminobenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER)
1915, **20**, 668

p-Acetaminobenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER)
1915, **20**, 668

Chloroacetylbenzylamine and hexamethylenetetramine (JACOBS and HEIDELBERGER)
1915, **20**, 686

Chloroacetylmethylaniline and hexamethylenetetramine (JACOBS and HEIDELBERGER)
1915, **21**, 105

Chloroacetyl-*m*-toluidine and hexamethylenetetramine (JACOBS and HEIDELBERGER)
1915, **21**, 108

$C_{15}H_{22}ON_5Cl$—*continued:*

Chloroacetyl-*o*-toluidine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 107

Chloroacetyl-*p*-toluidine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 108

$C_{15}H_{22}O_2N_5Cl$ *o*-Chloroacetylaminobenzyl alcohol and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 138

Chloroacetyl-*o*-anisidine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 135

Chloroacetyl-*p*-anisidine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 138

$C_{15}H_{22}O_4N_5Cl$ 2-Nitro-3,4-dimethoxybenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20,** 679

$C_{15}H_{22}O_6NCl$ Monobenzalglucosaminic acid ethyl ester hydrochloride (LEVENE and LA FORGE) 1915, **21,** 348

$C_{15}H_{23}ON_4Cl$ *o*-Ethoxybenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20,** 677

$C_{15}H_{23}ON_4Br$ *m*-Methylphenoxyethylhexamethylenetetraminium bromide (JACOBS and HEIDELBERGER) 1915, **21,** 441

o-Methylphenoxyethylhexamethylenetetraminium bromide (JACOBS and HEIDELBERGER) 1915, **21,** 440

p-Methylphenoxyethylhexamethylenetetraminium bromide (JACOBS and HEIDELBERGER) 1915, **21,** 441

$C_{15}H_{23}O_2N_4Cl$ 2,3-Dimethoxybenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20,** 678

3,4-Dimethoxybenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20,** 678

C_{15} V

$C_{15}H_{21}ON_5ClI$ 5-Iodochloroacetyl-*o*-toluidine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 112

C_{16} Group

$C_{16}H_{34}$ Hexadecane (LEVENE, WEST, and VAN DER SCHEER) 1915, **20,** 523

C_{16} II

$C_{16}H_{20}N_4$ *p*-Aminobenzeneazodiethylaniline (JACOBS and HEIDELBERGER) 1915, **21,** 123

C_{16} III

$C_{16}H_{11}O_4N_3$ 1-Phenyl-4-*p*-nitrobenzalhydantoin (JOHNSON and BRAUTLECHT) 1912, **12,** 184

$C_{16}H_{15}O_2N_3$ 1-Phenyl-4-*p*-aminobenzalhydantoin, hydrochloride, hydroiodide, nitrate, and sulfate (JOHNSON and BRAUTLECHT) 1912, **12,** 184

$C_{16}H_{16}O_4N_2$ Salicylamide ethylene ether (JACOBS and HEIDELBERGER) 1915, **21,** 449

C_{16} IV

$C_{16}H_{11}O_3N_3S$ 1-Phenyl-2-thio-4-*p*-nitrobenzalhydantoin (JOHNSON and BRAUTLECHT) 1912, **12,** 182

$C_{16}H_{14}ON_2S$ 1-Phenyl-4-benzyl-2-thiohydantoin (BRAUTLECHT) 1911–12, **10,** 144

$C_{16}H_{14}O_2NCl$ Chloroacetyl-ω-anilinoacetophenone (JACOBS and HEIDELBERGER) 1915, **21,** 106

$C_{16}H_{14}O_2N_2S$ 1-Phenyl-4-*p*-hydroxybenzyl-2-thiohydantoin (BRAUTLECHT) 1911–12, **10,** 144

$C_{16}H_{14}O_3NCl$ *o*-Chloroacetylaminobenzyl benzoate (JACOBS and HEIDELBERGER) 1915, **21,** 139

$C_{16}H_{15}O_2N_2Cl$ Chloroacetylphenylglycineanilide (JACOBS and HEIDELBERGER) 1915, **21,** 106

$C_{16}H_{16}ON_3Cl$ Chloroacetylaminoazotoluene (*o*-tolueneazochloroacetyl-*o*-toluidine) (JACOBS and HEIDELBERGER) 1915, **21,** 118

$C_{16}H_{16}O_2NCl$ α,β-Diphenylchloroacetylaminoethanol (JACOBS and HEIDELBERGER) 1915, **21,** 434

α,β-Isodiphenylchloroacetylaminoethanol (JACOBS and HEIDELBERGER) 1915, **21,** 435

$C_{16}H_{16}O_3N_5Cl$ 4-Nitrobenzeneazo-2′-chloroacetylamino-4′-dimethylaminobenzene (JACOBS and HEIDELBERGER) 1915, **21,** 129

$C_{16}H_{17}ON_4Cl$ Benzeneazo-2′-chloroacetylamino-4′-dimethylaminobenzene (JACOBS and HEIDELBERGER) 1915, **21,** 128

p-Chloroacetylaminobenzeneazodimethylaniline (JACOBS and HEIDELBERGER) 1915, **21,** 122

$C_{16}H_{24}O_2N_5Cl$ α-Phenyl-α-oxy-β-chloroacetylaminoethane and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 432

$C_{16}H_{24}O_2N_5Br$ *o*-Acetaminophenoxyethylhexamethylenetetraminium bromide (Jacobs and Heidelberger) 1915, **21,** 448

p-Acetaminophenoxyethylhexamethylenetetraminium bromide (Jacobs and Heidelberger) 1915, **21,** 446

$C_{16}H_{24}O_2N_5I$ β-Iodopropionyl-*o*-anisidine and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 136

$C_{16}H_{25}ON_6Cl$ *m*-Chloroacetylaminodimethylaniline and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 113

p-Chloroacetylaminodimethylaniline and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 114

$C_{16}H_{25}O_2N_4Cl$ 3-Methoxy-4-ethoxybenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 680

$C_{16}H_{32}O_9N_4S$ Kyrine sulfate (Levene and van der Scheer) 1915, **22,** 427

C_{17} Group

C_{17} II

$C_{17}H_{15}N_3$ *o*-Tolueneazo-α-naphthylamine (Jacobs and Heidelberger) 1915, **21,** 121

$C_{17}H_{24}O_{10}$ Cornin (Miller) 1909–10, **7,** xliii

$C_{17}H_{34}O_3$ Methyl α-hydroxypalmitate (Levene and West) 1914, **18,** 466

$C_{17}H_{35}N$ Sphingamine (Levene and Jacobs) 1912, **11,** 553

C_{17} III

$C_{17}H_{13}O_2N$ α-Benzoylamino-*p*-methylcinnamic acid anhydride (Dakin) 1911, **9,** 154

$C_{17}H_{13}O_2N_3$ Isobutylglyoxal semicarbazone (Dakin and Dudley) 1914, **18,** 38

$C_{17}H_{13}O_3N$ Benzoylamino-*p*-methoxycinnamic acid anhydride (Dakin) 1910–11, **8,** 18

$C_{17}H_{15}O_3N$ α-Benzoylamino-*p*-methylcinnamic acid (Dakin) 1911, **9,** 155

$C_{17}H_{15}O_4N$ Benzoylamino-*p*-methoxycinnamic acid (Dakin) 1910–11, **8,** 19

$C_{17}H_{17}O_4N$ Benzoyltyrosine methyl ether (Dakin) 1910–11, **8,** 19

$C_{17}H_{19}O_3N$ Morphine, picrolonate (Warren and Weiss) 1907, **3,** 336

$C_{17}H_{20}O_3N_4$ Urine pentose osazone (Levene and La Forge) 1913, **15,** 484

$C_{17}H_{21}N_4Cl$ β-Naphthobenzylhexamethylenetetraminium chloride (Jacobs and Heidelberger) 1915, **20,** 664

$C_{17}H_{23}O_3N$ Atropine, picrolonate (Warren and Weiss) 1907, **3,** 336

$C_{17}H_{27}O_2N_3$ Methyl *n*-nonyl ketone *p*-nitrophenylhydrazone (Dakin) 1908, **4,** 224

$C_{17}H_{35}O_2N$ Sphingosine, sulfate, diacetate (Levene and Jacobs) 1912, **11,** 548

—, picrolonate (Levene and West) 1916, **24,** 64

$C_{17}H_{37}O_2N$ Dihydrosphingosine, sulfate (Levene and Jacobs) 1912, **11,** 550

—, picrate, picrolonate (Levene and West) 1916, **24,** 66

C_{17} IV

$C_{17}H_{14}O_3N_2S$ Benzoylbenzalthiohydantoic acid and sodium salt (Johnson and O'Brien) 1912, **12,** 210

$C_{17}H_{15}O_5N_2Cl$ Chloroacetylphenylaminoethyl *p*-nitrobenzoate (Jacobs and Heidelberger) 1915, **21,** 418

$C_{17}H_{16}O_2NBr$ Bromoacetyl-ω-*o*-toluidinoacetophenone (Jacobs and Heidelberger) 1915, **21,** 107

$C_{17}H_{16}O_3NCl$ Chloroacetyl-ω-*o*-anisidinoacetophenone (Jacobs and Heidelberger) 1915, **21,** 137

$C_{17}H_{19}ON_2Cl$ *p*-Chloroacetylaminoethylbenzylaniline (Jacobs and Heidelberger) 1915, **21,** 117

$C_{17}H_{21}ON_6Cl$ 6-Chloroacetylaminoquinoline and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 143

$C_{17}H_{23}O_2N_4Br_3$ 2-Acetoxy-3,5-dimethyl-4,6-dibromobenzylhexamethylenetetraminium bromide (Jacobs and Heidelberger) 1915, **20,** 671

$C_{17}H_{23}O_5N_6Cl$ Chloroacetylaminoethyl *m*-nitrobenzoate and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 411

Chloroacetylaminoethyl *o*-nitrobenzoate and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 410

Chloroacetylaminoethyl *p*-nitrobenzoate and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 412

$C_{17}H_{24}O_2N_5Br$ 3-Acetamino-4-methylphenacylhexamethylenetetraminium bromide (JACOBS and HEIDELBERGER) 1915, **21**, 461

$C_{17}H_{24}O_3N_5Cl$ Ethyl *p*-chloroacetylaminobenzoate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 139

Chloroacetylaminoethyl benzoate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 408

$C_{17}H_{25}O_2N_4Cl$ 2-Acetoxy-3,5-dimethylbenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20**, 670

$C_{17}H_{25}O_2N_6I$ *p*-Acetaminoiodoacetylbenzylamine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **20**, 687

$C_{17}H_{26}ON_5Cl$ Chloroacetyl-ψ-cumidine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 109

$C_{17}H_{26}O_2N_5Cl$ Chloroacetylamino *o*-tolyl ether and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 417

β-Phenyl-β-oxy-α-chloroacetylaminopropane and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 436

$C_{17}H_{26}O_3N_5Cl$ 1,2-Dimethoxychloroacetylbenzylamine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **20**, 692

C_{18} Group

$C_{18}H_{38}$ Octadecane (LEVENE, WEST, and VAN DER SCHEER) 1915, **20**, 524

C_{18} II

$C_{18}H_{18}O_6$ Ethylene anisate (JACOBS and HEIDELBERGER) 1915, **21**, 471

$C_{18}H_{34}O_4$ Ethyl undecylmalonate (LEVENE, WEST, ALLEN, and VAN DER SCHEER) 1915, **23**, 73

$C_{18}H_{36}O_3$ Ethyl α-hydroxypalmitate (LEVENE and WEST) 1914, **18**, 466

C_{18} III

$C_{18}H_{20}O_4N_6$ Isobutylglyoxal dinitrophenylhydrazone (DAKIN and DUDLEY) 1914, **18**, 39

$C_{18}H_{21}O_3N$ Codeine, picrate (WARREN and WEISS) 1907, **3**, 336

$C_{18}H_{25}O_5N_6Cl$—*continued:*
hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 423

p-Nitrobenzoylaminoisopropyl chloroacetate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 427

$C_{18}H_{26}O_2N_5I$ 3-Acetamino-4-tolyl ω-iodoethyl ketone and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 462

$C_{18}H_{26}O_3N_5Cl$ *m*-Carbethoxychloroacetylbenzylamine (ethyl *m*-chloroacetylaminomethylbenzoate) (JACOBS and HEIDELBERGER) 1915, **20**, 692

Chloroacetylaminoethyl *o*-toluate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 409

Chloroacetylaminoethyl *p*-toluate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1905, **21**, 409

$C_{18}H_{26}O_4N_5Cl$ Chloroacetylaminoethyl anisate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 415

$C_{18}H_{27}O_2N_6Cl$ 1-Methyl-4-acetaminochloroacetylbenzylamine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **20**, 688

$C_{18}H_{27}O_{17}NS$ Chondroitin sulfuric acid (LEVENE and LA FORGE) 1913, **15**, 72

$C_{18}H_{29}ON_6Cl$ *p*-Chloroacetylaminodiethylaniline and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 115

$C_{18}H_{31}O_2N_4Br$ Bornyl bromoacetate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 468

$C_{18}H_{33}O_2N_4Br$ Menthyl bromoacetate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 468

C_{18} V

$C_{18}H_{15}O_5N_3SHg$ 1-Amino-2-(*p*-naphthaleneazophenylmercuric acetate)-5-sulfonic acid (JACOBS and HEIDELBERGER) 1915, **20**, 517

C_{19} Group

C_{19} III

$C_{19}H_{39}O_2N$ Dimethylsphingosine (LEVENE and JACOBS) 1912, **11**, 552

C_{19} IV

$C_{19}H_{23}O_3N_4Cl$ 2-Oxy-3-carbomethoxynaphthobenzylhexamethylenetetraminium chloride (JACOBS and HEIDELBERGER) 1915, **20**, 682

$C_{19}H_{24}ON_3Cl$ Chloroacetylbis-(*p*-dimethylaminophenyl)-methylamine (chloroacetylleucoauramine) (JACOBS and HEIDELBERGER) 1915, **21**, 472

$C_{19}H_{26}O_5N_5Cl$ Chloroacetylaminoethyl acetylsalicylate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 414,

1,2-Diacetoxychloroacetylbenzylamine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **20**, 692

$C_{19}H_{26}O_{15}N_8P_2$ Guanine-cytosine dinucleotide (JONES and RICHARDS) 1915, **20**, 30

$C_{19}H_{27}O_5N_6Cl$ *β*-Chloroacetylamino-*γ*-butyl *p*-nitrobenzoate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 429

δ-Chloroacetylaminobutyl *p*-nitrobenzoate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 428

Chloroacetylethylaminoethyl *p*-nitrobenzoate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 418

$C_{19}H_{29}O_3N_6Cl$ 1-Acetamino-4-ethoxychloroacetylbenzylamine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **20**, 691

$C_{19}H_{30}O_4N_5Cl$ *γ*-Chloroacetylaminopropyl anisate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 424

C_{20} Group

$C_{20}H_{42}$ Eicosane (LEVENE, WEST, and VAN DER SCHEER) 1915, **20**, 526

C_{20} II

$C_{20}H_{20}N_2$ Benzylphenylhydrazine derivative of reducing component of yeast nucleic acid (Boos) 1908–09, **5**, 473

$C_{20}H_{22}N_4$ *p*-Diethylaminobenzeneazo-*β*-naphthylamine (JACOBS and HEIDELBERGER) 1915, **21**, 130

$C_{20}H_{38}O_4$ *α*-Acetoxystearic acid (LEVENE and WEST) 1914, **16**, 477

$C_{20}H_{41}I$ Eicosyl iodide (LEVENE, WEST, and VAN DER SCHEER) 1915, **20**, 526

C_{20} III

$C_{20}H_{16}O_4N_6$ Phenylglyoxal di-*p*-nitrophenylhydrazone (DAKIN and DUDLEY) 1913, **15,** 138

$C_{20}H_{24}O_2N_2$ Quinine, picrolonate (WARREN and WEISS) 1907, **3,** 337

$C_{20}H_{26}ON_4$ *p*-Acetaminobenzeneazodipropylaniline (JACOBS and HEIDELBERGER) 1915, **21,** 124

$C_{20}H_{32}N_8Cl_2$ *m*-Xylylenedihexamethylenetetraminium dichloride (JACOBS and HEIDELBERGER) 1915, **20,** 664

o-Xylylenedihexamethylenetetraminium dichloride (JACOBS and HEIDELBERGER) 1915, **20,** 663

$C_{20}H_{55}O_{49}P_9$ Acid from wheat bran, barium and brucine salts (ANDERSON) 1912, **12,** 457

C_{20} IV

$C_{20}H_{18}O_4N_4S_2$ Tyrosine disulfide hydantoin (JOHNSON and BRAUTLECHT) 1912, **12,** 194

$C_{20}H_{24}ON_5Cl$ Chloroacetyldiphenylamine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 105

$C_{20}H_{24}ON_7Cl$ *p*-Chloroacetylaminoazobenzene and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 118

$C_{20}H_{24}O_2N_7Cl$ Benzeneazo-*m*-chloroacetylaminophenol and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 134

$C_{20}H_{25}ON_4Cl$ *p*-Chloroacetylaminobenzeneazodipropylaniline (JACOBS and HEIDELBERGER) 1915, **21,** 125

$C_{20}H_{26}O_2N_5Cl$ β-Methoxy-α-chloroacetylnaphthobenzylamine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **20,** 690

$C_{20}H_{33}ON_6Cl$ *p*-Chloroacetylaminodipropylaniline and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 116

C_{21} Group

C_{21} II

$C_{21}H_{18}O_8$ Triacetylbaptisol (CLARK) 1915, **21,** 654

$C_{21}H_{27}O_{20}$ Algin (alginic acid) (HOAGLAND and LIEB) 1915, **23,** 290

C_{21} III

$C_{21}H_{18}O_4N_6$ Benzylglyoxal di-*p*-nitrophenylhydrazone (DAKIN and DUDLEY) 1914, **18,** 43

$C_{21}H_{21}O_6N$ Hydrastine, picrolonate (WARREN and WEISS) 1907, **3**, 337

$C_{21}H_{22}O_2N_2$ Strychnine, picrolonate (WARREN and WEISS) 1907, **3**, 334

$C_{21}H_{34}N_8Cl_2$ Mesityldihexamethylenetetraminium dichloride (JACOBS and HEIDELBERGER) 1915, **20**, 664

$C_{21}H_{39}O_4N$ Diacetylsphingosine (LEVENE and JACOBS) 1912, **11**, 551

C_{21} IV

$C_{21}H_{18}ONCl$ Chloroacetyltriphenylmethylamine (JACOBS and HEIDELBERGER) 1915, **21**, 473

$C_{21}H_{23}O_5N_6Cl$ *o*-Chloroacetylaminophenyl *p*-nitrobenzoate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 132

$C_{21}H_{24}O_3N_5Cl$ *o*-Chloroacetylaminophenyl benzoate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 131

$C_{21}H_{25}O_3N_4Cl$ Chloroacetylaminoethyl *p*-(azodiethylaniline)-benzoate (chloroacetylaminoethyl ester of *p*-carboxybenzeneazo-*p'*-diethylaminobenzene) (JACOBS and HEIDELBERGER) 1915, **21**, 413

$C_{21}H_{26}O_3N_5Cl$ β-Acetoxy-α-chloroacetylnaphthobenzylamine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **20**, 689

Chloroacetylaminoethyl β-naphthoate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 410

$C_{21}H_{26}O_3N_5I$ β-Acetoxy-α-iodoacetylnaphthobenzylamine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **20**, 690

$C_{21}H_{27}ON_6Cl$ β-Chloroacetyl-α,α-phenylbenzylhydrazine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 475

$C_{21}H_{33}O_3N_6Cl$ Diethylaminoethyl *p*-chloroacetylaminobenzoate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 140

C_{22} Group

$C_{22}H_{46}$ Docosane (LEVENE, WEST, and VAN DER SCHEER) 1915, **20**, 528

C_{22} III

$C_{22}H_{45}N_4I$ Cetylhexamethylenetetraminium iodide (JACOBS and HEIDELBERGER) 1915, **21**, 466

C_{22} IV

$C_{22}H_{16}ON_3Cl$ β-Naphthaleneazochloroacetyl-β-naphthylamine (JACOBS and HEIDELBERGER) 1915, **21**, 119

$C_{22}H_{23}ON_4Cl$ p-Diethylaminobenzeneazochloroacetyl-α-naphthylamine (JACOBS and HEIDELBERGER) 1915, **21**, 130

$C_{22}H_{26}O_2N_5Cl$ Chloroacetyl-ω-anilinoacetophenone and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 107

$C_{22}H_{26}O_3N_5Cl$ o-Chloroacetylaminobenzyl benzoate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 139

$C_{22}H_{26}O_6NCl$ Dibenzalxylohexosaminic acid ester hydrochloride (LEVENE and LA FORGE) 1915, **21**, 356

$C_{22}H_{27}O_2N_6Cl$ Chloroacetylphenylglycineanilide and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 106

$C_{22}H_{28}ON_7Cl$ Chloroacetylaminoazotoluene and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 118

$C_{22}H_{28}O_2N_5Cl$ α,β-Diphenylchloroacetylaminoethanol and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 434

α,β-Isodiphenylchloroacetylaminoethanol and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 435

$C_{22}H_{29}ON_8Cl$ p-Chloroacetylaminobenzeneazodimethylaniline and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21**, 123

$C_{22}H_{35}O_3N_6Cl$ m-Chloroacetylaminomethylbenzoic acid diethylaminoethyl ester and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **20**, 694

$C_{22}H_{46}O_2NCl$ Palmityl-α-methylcholine chloride (palmityl-β-methylethoxytrimethylammonium chloride) (MENGE) 1912–13, **13**, 108

C_{23} Group

C_{23} III

$C_{23}H_{21}O_3N$ α-Phenyl-α-benzoyloxy-β-benzoylaminopropane (JACOBS and HEIDELBERGER) 1915, **21**, 436

$C_{23}H_{24}ON_4$ p-Acetaminobenzeneazoethylbenzylaniline (JACOBS and HEIDELBERGER) 1915, **21**, 126

$C_{23}H_{26}O_4N_2$ Brucine, picrolonate (WARREN and WEISS) 1907, **3**, 335

$C_{23}H_{41}O_5N$ Triacetylsphingosine (LEVENE and JACOBS) 1912, **11**, 551

C_{23} IV

$C_{23}H_{23}ON_4Cl$ *p*-Chloroacetylaminobenzeneazoethylbenzylaniline (Jacobs and Heidelberger) 1915, **21,** 126

$C_{23}H_{27}O_5N_6Cl$ Chloroacetylphenylaminoethyl *p*-nitrobenzoate and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 419

$C_{23}H_{28}O_2N_5Br$ Bromoacetyl-ω-*o*-toluidinoacetophenone and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 107

$C_{23}H_{28}O_3N_5Cl$ Chloroacetyl-ω-*o*-anisidinoacetophenone and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 137

$C_{23}H_{31}ON_6Cl$ *p*-Chloroacetylaminoethylbenzylaniline and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 117

C_{24} Group

$C_{24}H_{50}$ Isotetracosane from lignoceric acid (Levene and West) 1913, **14,** 265; 1914, **18,** 480

n-Tetracosane (Levene and West) 1914, **18,** 478

C_{24} II

$C_{24}H_{21}N_5$ *o*-Tolueneazo-*o*-tolueneazo-β-naphthylamine (Jacobs and Heidelberger) 1915, **21,** 120

$C_{24}H_{48}O_2$ Carnaubic acid (Dunham) 1908, **4,** 297

Lignoceric acid (Levene and Jacobs) 1912, **12,** 385

(Levene and West) 1913, **14,** 263

(Levene) 1913, **15,** 363

Tetracosanic acid (Levene, West, Allen, and van der Scheer) 1915, **23,** 75

$C_{24}H_{49}I$ Isotetracosyl iodide (Levene and West) 1914, **18,** 480

$C_{24}H_{50}O$ Isotetracosyl alcohol (Levene and West) 1914, **18,** 479

C_{24} III

$C_{24}H_{26}O_4N_6$ Glucuronic acid osazone hydrazide (Levene and La Forge) 1913, **15,** 75; 1914, **18,** 240

C_{24} IV

$C_{24}H_{18}ON_5Cl$ Benzeneazobenzeneazochloroacetyl-β-naphthylamine (Jacobs and Heidelberger) 1915, **21,** 119

$C_{24}H_{33}ON_8Cl$ *p*-Chloroacetylaminobenzeneazodiethylaniline and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 124

C_{25} Group

$C_{25}H_{52}$ Pentacosane from cerebronic acid (LEVENE and JACOBS) 1912, **12,** 386
(LEVENE and WEST) 1913, **14,** 264

C_{25} II

$C_{25}H_{48}O_4$ Docosylmalonic acid (LEVENE, WEST, ALLEN, and VAN DER SCHEER) 1915, **23,** 74
$C_{25}H_{50}O_3$ Cerebronic acid (LEVENE and JACOBS) 1912, **12,** 382
(LEVENE and WEST) 1913, **14,** 258

C_{25} IV

$C_{25}H_{28}ON_3Cl$ *p*-Chloroacetylaminoleucomalachite green (JACOBS and HEIDELBERGER) 1915, **21,** 141
$C_{25}H_{36}ON_7Cl$ Chloroacetylleucoauramine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 473
$C_{25}H_{55}O_{54}P_9Ba_5$ Barium salt of wheat bran acid (ANDERSON) 1912, **12,** 455

C_{26} Group

$C_{26}H_{54}$ Isohexacosane (cerane) (LEVENE, WEST, and VAN DER SCHEER) 1915, **20,** 533
Hexacosane (LEVENE, WEST, and VAN DER SCHEER) 1915, **20,** 529

C_{26} II

$C_{26}H_{52}O_2$ Ethyl carnaubate (DUNHAM) 1908, **4,** 299
Ethyl lignocerate (LEVENE) 1913, **15,** 362
(LEVENE and WEST) 1913, **15,** 193
Ethyl tetracosanate (LEVENE, WEST, ALLEN, and VAN DER SCHEER) 1915, **23,** 75
$C_{26}H_{52}O_3$ Methyl cerebronate (LEVENE and WEST) 1913, **14,** 261

C_{26} IV

$C_{26}H_{22}ON_5Cl$ *o*-Tolueneazo-*o*-tolueneazochloroacetyl-β-naphthylamine (JACOBS and HEIDELBERGER) 1915, **21,** 120

$C_{26}H_{37}ON_8Cl$ *p*-Chloroacetylaminobenzeneazodipropylaniline and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 125

C_{27} Group

C_{27} II

$C_{27}H_{21}N_5$ *o*-Tolueneazo-α-naphthaleneazo-β-naphthylamine (JACOBS and HEIDELBERGER) 1915, **21,** 121

$C_{27}H_{52}O_4$ Acetylcerebronic acid (LEVENE and WEST) 1913, **14,** 262

$C_{27}H_{54}O_3$ Ethyl cerebronate (LEVENE and WEST) 1913, **14,** 260

C_{27} IV

$C_{27}H_{30}ON_5Cl$ Chloroacetyltriphenylmethylamine and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 474

$C_{27}H_{37}O_3N_8Cl$ Chloroacetylaminoethyl *p*-(azodiethylaniline)-benzoate and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 413

C_{28} Group

$C_{28}H_{58}$ Octacosane (LEVENE, WEST, and VAN DER SCHEER) 1915, **20,** 529

C_{29} Group

C_{29} II

$C_{29}H_{56}O_4$ Acetate of ethyl cerebronate (LEVENE and WEST) 1913, **14,** 261

Ethyl docosylmalonate (LEVENE, WEST, ALLEN, and VAN DER SCHEER) 1915, **23,** 74

C_{29} IV

$C_{29}H_{35}ON_8Cl$ *p*-Chloroacetylaminobenzeneazoethylbenzylaniline and hexamethylenetetramine (JACOBS and HEIDELBERGER) 1915, **21,** 127

C_{30} Group

$C_{30}H_{62}$ Isotriacontane (melissane) (LEVENE, WEST, and VAN DER SCHEER) 1915, **20,** 534

Triacontane (LEVENE, WEST, and VAN DER SCHEER) 1915, **20,** 530

C_{30} II

$C_{30}H_{54}O_6$ Isomannid dilaurate (Bloor) 1912, **11,** 423
$C_{30}H_{56}O_7$ Mannite dilaurate (Bloor) 1912, **11,** 421

C_{31} Group

C_{31} IV

$C_{31}H_{40}ON_7Cl$ *p*-Chloroacetylaminoleucomalachite green and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 141

C_{32} Group

$C_{32}H_{66}$ Dotriacontane (Levene, West, and van der Scheer) 1915, **20,** 530

C_{32} IV

$C_{32}H_{28}O_6N_2S_2$ Thiotyrosine disulfide dibenzoate (Johnson and Brautlecht) 1912, **12,** 193

C_{34} Group

$C_{34}H_{70}$ Tetratriacontane (Levene, West, and van der Scheer) 1915, **20,** 531

C_{35} Group

C_{35} IV

$C_{35}H_{48}ON_7Cl$ *o*-Chloroacetylamino-*p′*,*p″*-tetraethyldiaminotriphenylmethane and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 142

p-Chloroacetylamino-*p′*,*p″*-tetraethyldiaminotriphenylmethane and hexamethylenetetramine (Jacobs and Heidelberger) 1915, **21,** 142

C_{36} Group

$C_{36}H_{74}$ Hexatriacontane (Levene, West, and van der Scheer) 1915, **20,** 531

C_{36} II

$C_{36}H_{24}O_8$ Tribenzoylbaptisol (Clark) 1915, **21,** 655

C_{42} Group

C_{42} II

$C_{42}H_{78}O_6$	Isomannid distearate (Bloor)	1912, **11**, 145
	Mannid distearate (Bloor)	1909–10, **7**, 427; 1912, **11**, 143
$C_{42}H_{80}O_7$	Mannitan distearate (Bloor)	1912, **11**, 144

SUGGESTIONS FOR THE PREPARATION OF MANUSCRIPTS.

COPY.

All manuscripts should be copied with triple spacing and $1\frac{1}{4}$ inch margins.

The original typewritten copy should be submitted for publication, not a carbon copy. It should be sent flat, not rolled or folded. All corrections on the manuscript should be clearly written in ink. Manuscripts should be consistent in style; a word should not be abbreviated in one line and written out a few lines below.

TITLE.

The title should be written on a separate sheet. The author's name, the laboratory where the work was done, and the words, Received for publication, should be written on a separate sheet.

An abbreviated form of the title, not exceeding thirty-six letters in length, and the author's name and initials, to be used as running headlines, should be given, also on a separate sheet

HEADINGS.

Major headings, such as INTRODUCTION, EXPERIMENTAL, DISCUSSION, SUMMARY, CONCLUSION, BIBLIOGRAPHY, EXPLANATION OF FIGURES, also TABLE in table headings, are printed in small capitals, and therefore should be underlined twice.

Minor headings, whether center or side, and descriptive matter in table headings, are printed in italics, and therefore underlined once in the manuscript. Capitalize the nouns, adjectives, pronouns, verbs, *Cc.*, *Gm.*, *per Cent*, etc.

Dates are not underlined, except when they occur in an italicized heading.

The form September 15, 1915, is preferred to IX–15–15.

TEXT.

Begin every experiment, table, or quotation of over five lines on a new sheet. When the text is resumed start with another fresh sheet. This method brings the material of the entire manuscript in sequence, but permits, without mutilation of the manuscript, the separation in the Printer's office of tables, and all other small type, which are set up separately.

Number the sheets consecutively throughout. Mark in ink the place for each illustration.

TABLES.

The form for table headings has already been given under "HEADINGS." Table column headings are written in small letters and followed by periods (see Table I).

Words like *gm.*, *cc.*, *per cent*, *°C.*, etc., referring to an entire column in a table, are written in small letters at the top of the column, and underlined once.

In tables use ditto marks for words when possible, but not for figures.

TABLE I.

Changes in the Blood of Rabbit 1 after Hemorrhage.

Date.	Amount of blood removed.	Hemoglobin.	Red blood corpuscles.	Remarks.
1915	*cc.*	*per cent*		
Sept. 13	10	89	5,160,000	Weight 1,605 gm.
" 14	10	68	2,870,000	No nucleated red cells.
" 15	10	75	3,990,000	" " " "
" 16	10	58	3,070,000	" " " "

FOOT-NOTES.

Foot-Notes to Text. Typewrite all foot-notes together at the end of the paper and number them consecutively from 1 up, to correspond with the reference numbers in the text.

Number all foot-note references consecutively throughout the paper; *i.e.*, if the foot-note references on the first page are 1, 2, 3, those on the second page should be 4, 5, 6, etc. Superior numerals (located as [1], [2], [3]) should be used in the text to indicate foot-notes.

Double spacing should be used in typewriting foot-notes.

Foot-Notes to Tables.—Foot-notes to tables are starred (*, **, †, ‡, etc.), not numbered, in order to distinguish them from foot-notes to text.

REFERENCES.

References are usually printed in the form of foot-notes, and as such are numbered and located with the other foot-notes. If a given article is referred to more than once, the foot-note is printed only with the first reference. The number of the foot-note is repeated at subsequent points in the text where the same article is referred to. Do not use *loc. cit.*

If the author prefers, the references may be printed in a bibliography at the end of the paper. In this case one of two systems is usually adopted: (*a*) The references in the bibliography are arranged and numbered in the order of their appearance in the text and independently of the foot-notes. (*b*) They are arranged alphabetically according to the names of the authors. In this case the text reference is the name of the author followed by the year of the publication referred to. If more than one article by the same author in a given year is referred to, the letters *a*, *b*, *c*, etc., may be used to differentiate them. This system is convenient because, among other reasons, of the ease with which new references can be inserted in the manuscript, and of the readiness with which a given reference can be located in the printed bibliography.

Text references to a bibliography are indicated by numbers in parentheses instead of the superior numbers used for foot-notes. Thus "Ehrlich[1]" indicates a foot-note; but "Ehrlich (1)" or "Ehrlich (1910, *a*)" or "(Ehrlich, 1910, *a*)" indicates a reference in the bibliography. Two separate series of numbers can thus be used in the same text to indicate respectively foot-notes and references in the bibliography.

The form for references is indicated by the following example, the order of data being: author, initials, journal (underlined), year, volume (small Roman numerals), and page:

[3] Fischer, E., *Ber. chem. Ges.*, 1889, xxii, 87.

The abbreviations used by the *Journal* for the most commonly cited publications are listed below.

Am. Chem. J.
Am. J. Physiol.
Ann. Chem.
Ann. chim. phys.
Arch. exp. Path. u. Pharm.
Arch. ges. Physiol.
Arch. Int. Med.
[*Arkansas*] *Agric. Exp. Station, Bull.* [*5*, 1915].
Ber. chem. Ges.
Berl. klin. Woch.
Biochem. J.
Biochem. Z.
Bull. Hyg. Lab., U. S. P. H.
Bull. Soc. chim.
Carnegie Institution of Washington, Publication No. [*156*, 1911].
Chem. Abstr.
Chem. Zentr.
Compt. rend. Acad.
Ergebn. allg. Path. u. path. Anat.
Gazz. chim. ital.
J. Agric. Research.
J. Am. Chem. Soc.
J. Am. Med. Assn.
J. Biol. Chem.
J. Chem. Soc.
J. Exp. Med.
J. Ind. and Eng. Chem.
J. Pharm. and Exp. Ther.
J. Physiol.
J. prakt. Chem.
Monatschr. Chem.
Proc. Roy. Soc., Series B.
Proc. Soc. Exp. Biol. and Med.
Rec. trav. chim. Pays-Bas.
U. S. Dept. Agric., Bureau of [*Plant Industry*], *Bull.* [*31*, 1914].
Z. physik. Chem.
Z. physiol. Chem.

In order to distinguish books from periodicals, titles of books are not underlined. The place of publication, the year, and the page should be given, and the edition when there is more than one.

References to books and journals should not be inserted in the text.

EXPLANATION OF FIGURES.

Typewrite explanations of the figures, whether for plates or text-figures, and number them to correspond with the figures to which they refer. The Bibliography precedes the Explanation of Figures.

FORMS AND ABBREVIATIONS.

Gram = gm.
Cubic centimeter = cc.
Centimeter = cm.
Millimeter = mm.
Milligram = mg.
Kilogram = kilo or kg.
per cent (without a period).

a.m., p.m. (lower case).
In both large and small type write 30 cc., 20 mg., 20 gm.
Always write 0.25; *i.e.*, with a zero before the decimal point.

Use the form 193–194.5°, placing the degree mark at the end only.

Use $[\alpha]_D^{20}$ for specific rotation (for 20° and sodium light). The values for $[\alpha]$ are best expressed in the following way:

$$[\alpha]_D^{25} = \frac{-0.25° \times 2.1662}{1 \times 0.1505} = -3.58°$$

For normal and molecular solutions the expressions 2.5 N and 0.5 M are preferred to $2\frac{1}{2}$ N and $\frac{M}{2}$. In exceptional cases, however, as 3/16 M, the fractional form is more convenient.

Hydrated salts should be written as $CuSO_4.5H_2O$.

Small numbers in the text are usually written out, large numbers expressed in numerals; thus seven, but 250.

In numbers of four figures or over use commas; as 1,000, 10,000.

SPELLING.

Words like hemorrhage, anesthetic, etc., are spelled with *e* (not *ae*).

Use *f* instead of *ph* for sulfur and sulfur derivatives.

Words serving as special names of definite objects, such as Experiment 8, Table I, Rabbit 1, are written with capital letters.

NOMENCLATURE.

The usage of the American Chemical Society is followed. The following rules cover most of the terms used in this *Journal*.

Hydroxyl derivatives of hydrocarbons are to be given names ending in *-ol;* as glycer*ol*, cholester*ol*, pinac*ol* (not pinacone). This applies also to alcohols of the sugar series, as mannit*ol*, heptit*ol*, etc.

Compounds which are not alcohols but have received names ending in *-ol* should be spelled *-ole;* as anis*ole*, ind*ole*. (German hydrocarbon names, as *Benzol*, *Toluol*, etc., are to be written benz*ene*, tolu*ene*, etc.)

Hydroxy- and not oxy- should be used in designating a hydroxyl compound; as *hydroxy*acetic acid, $CH_2(OH)CO_2H$, (not *oxy*-acetic acid).

As regards the endings *-in* and *-ine*, the latter should always be used for *basic* substances, and for them only; *-in* is used for glycerides, glucosides, bitter principles, proteins, etc.; thus anil*ine*, tyros*ine*, pur*ine*, morph*ine*; but gelat*in*, palmit*in*, amygdal*in*, album*in*, prote*in* (not prote*id*).

When a substituent is one of the groups NH_2, NHR, NR_2, NH, or NR, its name should end in *-ino*; thus $NH_2CH_2CH_2CO_2H$, β-am*ino*-propionic acid (not am*ido*propionic acid); $C_6H_5NHCH_2CH_2CO_2H$, β-anil*ino*propionic acid; $CH_3CH_2NH_2CO_2H$, α-am*ino*propionic acid.

The term ether must not be used for compounds which are properly called esters. Esters and metallic salts should be designated in the form, diethyl phthalate, methyl hydrogen succinate, sodium propionate, etc. (not as the diethyl ester of phthalic acid, the monomethyl ester of succinic acid, or the sodium salt of propionic acid).

Acid radicals, such as C_6H_5CO, must have names ending in *-yl*, and their compounds with halogens, as C_6H_5COCl, are to be termed chlorides, bromides, etc. Thus, benzo*yl* chloride (not chloride of benzoic acid or benzoic acid chloride).

The connective *o* is to be used in such combining forms as amin*o*-, brom*o*-, chlor*o*-, cyan*o*-, and iod*o*-; thus brom*o*benzene, chlor*o*acetic, nitr*o*aniline. A few exceptions to this rule are permitted on account of long established usage; as acetamide, cyanamide.

Substances containing the group SO_3H should, if possible, be called sulfonic acids; failing this, sulfo compounds; thus phenylsulfonic acid, $C_6H_5SO_3H$, and sulfobenzoic acid, $HO_2CC_6H_4SO_3H$.

Salts of organic bases with hydrochloric acid should be called hydrochlorides (not hydrochlorates or chlorhydrates).

Salts of chloroplatinic acid are called chloroplatinates (not platinichlorides), and the formulas should be written in the form

$(CH_3NH_2)_2H_2PtCl_6$. Salts of thiocyanic acid, HCNS, should be called thiocyanates. Use sodium thiosulfate for $Na_2S_2O_3$.

The word hydroxide should be used for a compound with OH, and hydrate for a compound with H_2O; thus, chlorine hydrate, $Cl_2.10H_2O$; barium hydroxide, $Ba(OH)_2$.

Greek letters should be indicated by Gk. on the margin of the manuscript.

The following letters are italicized and should be underlined: *o*-, *m*-, *p*-, *d*-, and *l*-, for ortho, meta, para, dextro, and levo.

Use *dl*- (not *r*-) for racemic.

CHARTS.

Ink.—Charts should be drawn with black ink.[1] Blue-black ink and typewriting do not make good reproductions.

Paper.—Charts should be drawn on paper with a smooth surface. The cross-barred paper on page 593 is satisfactory for this purpose, as the blue lines do not reproduce. When it is desired to reproduce the finer lines, the blue lines may be inked in or the green-lined coordinate paper similar to the sample on page 595 may be used. The green lines reproduce in black.

Reduction.—Charts should be drawn large enough to stand a reduction of one-half or one-third. The amount of reduction must be taken into consideration when the chart is drawn, and the lines must be heavy enough, and the letters large enough to make clear reproductions when reduced. Letters and numbers should, when reduced, be not less than 2 mm. in height. The outside measurements for charts when reduced, including the legend, are 4 x 6½ inches. Authors must determine whether the chart is to be printed the long or the short way on the page.

Margin.—A margin of at least half an inch should be left around the chart.

The sample charts show the original size of the chart and the chart reduced to fit the page of the *Journal*.

DRAWINGS.

The above remarks concerning ink, paper, reduction, and margin apply also to drawings.

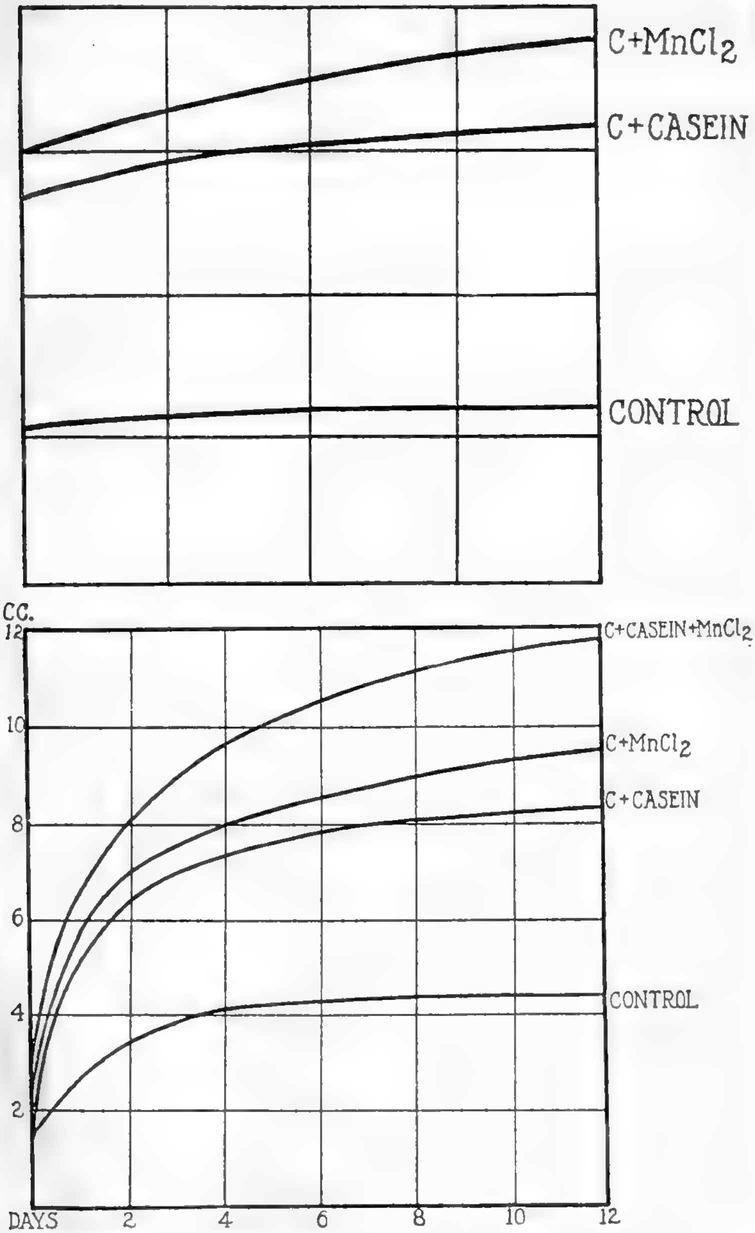
[1] Higgins' waterproof India ink.

PHOTOGRAPHS.

Photographs should be carefully trimmed and mounted. If two or more are to appear on the same page they should be mounted together, and the size to which they are to be reduced must be considered.

Authors who have not the facilities for preparing photographs as described above should send them untrimmed and unmounted. The part to be reproduced should be marked either on the front or the back of the photograph, without scarring the surface. The top should always be indicated if there is a possibility of doubt as to which way the figure should be placed.

Figures should be numbered consecutively, in the order in which they are referred to in the text.



The lower chart shows the effect of reducing the upper chart to two-thirds of the original scale. The letters below are 2 mm. high.