ACKNOWLEDGMENT

The author is indebted to Z. B. Blums and B. E. Clouser, Hercules Research Center, for assistance with the French and German terms, titles, and phrases.

LITERATURE CITED

(1) "UNISIST—Study Report on the Feasibility of a World Science Information System," by Unesco (United Nations Educational, Scientific and Cultural Organization) and the International Council of Scientific Unions, 161 pp., Unesco, Paris, 1971.
(2) Skolnik, H., "The Multiterm Index: A New Concept in Information Storage and Retrieval," *J. Chem. Doc.* **10,** 81–4 (1970).
(3) Skolnik, H., and Clouser, B. E., "Designing an Information Awareness and Retrieval System for Chemical Propulsion Literature," *Ibid.*, **11,** 39–43 (1971).
(4) Skolnik, H., "Designing an Index," *The Percolator* **35,** 26–31 (1959).
(5) Magistro, A. J., Nicholas, P. P., and Carroll, R. T., "The Oxychlorination of Ethylene at High Temperatures," *J. Org. Chem.* **34,** 271–3 (1969).
(6) Fodor, L., "Actual Optimization Problems of the Reactors Used for Ammonia Synthesis," *Chim. Ind., Genie Chim.* **104**(8), 1002–7 (1971).

Changes in IUPAC Nomenclature Rules for Organic Chemistry

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Received December 13, 1971

Changes in the 1971 edition of the IUPAC book, "Nomenclature of Organic Chemistry," from the previous editions (Sections A and B, 1966, and Section C, 1965) are listed with details of the changes.

"Nomenclature of Organic Chemistry, Sections A and B Third Edition and Section C Second Edition 1971," International Union of Pure and Applied Chemistry Commission on the Nomenclature of Organic Chemistry, Butterworths, London, 1971. xiii, 337 pp. $24.00.

This book combines under one cover "Nomenclature of Organic Chemistry, Sections A and B," Second Edition, 1966, $5.00, and Section C, First Edition, 1965, $9.50. Both available from Butterworths, London. In addition, publication of the first editions of Sections A and B was in *J. Amer. Chem. Soc.*, **82,** 5545 (1960), and of Section C in *Pure and Applied Chem. II,* Nos. 1–2 (1965) [IUPAC].

"Nomenclature of Organic Chemistry" comprises definitive rules for Sections A, Hydrocarbons; Section B, Fundamental Heterocyclic Systems; and Section C, Characteristic Groups Containing Carbon, Hydrogen, Oxygen, Nitrogen, Halogen, Sulfur, Selenium, and/or Tellurium.

The new edition of Sections A, B, and C contains considerable changes from the earlier editions, but these have been confined mostly to correction of errors, to clarifications, in a few cases to expansion of existing Rules, and to provision of better or additional examples.

However, major changes are the deletion of the Rules for order of complexity of side chains [Rule A-2.3(a) and parts of Rules A-2.4 and A-2.5], and of the Stelzner method of naming heterocyclic systems [Rule B-4] by replacement nomenclature. In both cases, the procedures of the deleted rules have been little used recently.

While use of the earlier editions is possible in conjunction with the following list of changes, most users will find it convenient and time-saving to have the new publication. The combined and expanded index is a particular useful feature.

The Commission invites suggestions for necessary extension and modification of its rules. Comments may be sent to S. P. Klesney, Central Report Index, 566 Building, The Dow Chemical Co., Midland, Mich. 48640 or to any member of the Commission.

Significant changes are given below. Page numbers of the current edition are listed first with page numbers for the earlier editions following in parenthesis.

SECTIONS A and B

Page 7 (8). A-2.3 Part (a) dealing with the order of complexity for arranging radicals in a name has been deleted. Parts of other rules dealing with the order of complexity have also been deleted.

Page 8 (10). A-2.4 Delete A-24(a) dealing with the order of complexity.

Page 9 (11,12). A-2.5 Delete the (a) names based on the order of complexity.

Page 11 (13). A-3.1 Add to the rules: When, in cyclic compounds or their substitution products, the locants of a double bond differ by unity, only the lower locant is cited in the name; when they differ by more than unity, one locant is placed in parentheses after the other (see Rules A-31.3 and A-31.4).

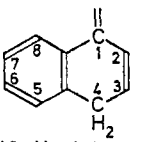
Page 17 (19). A-11.3 Delete the reference to fulvene. Fulvene is now treated in A-61.6.

Page 20 (22). A-13.3 Add Benzhydryl (alternative to Diphenylmethyl)

$$(C_6H_5)_2\overset{\alpha}{C}H—$$

Page 29 (31). A-24.2 5,6,7,8-Tetrahydro-2-naphthyl and its structural formula have been transferred to the exceptions to this rule.

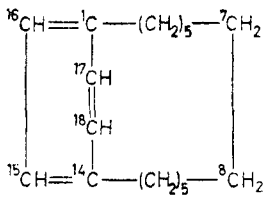
Page 30 (32). A-24.3 Add the following example:



1 (4*H*)-Naphthylidene
(for 4*H* see Rule A-21.6)
or 1,4-Dihydro-1-naphthylidene

Page 30 (32). A-24.4 Delete 1,2,4-Benzenetriyl and its structural formula.

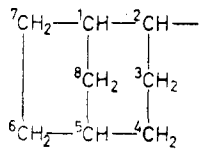
Page 32 (33). A-31.3 Add the example:



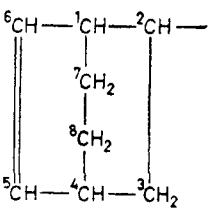
Bicyclo[12.2.2]octadeca-1(16),14,17-triene
or Bicyclo[12.2.2]octadeca-14,16(1),17-triene
(See Rule A-3.1 for double locants)

Page 32 (33). A-31.4 This rule was slightly modified as shown below. Three new examples replace the previous example. 31.4—Radicals derived from bridged hydrocarbons are named in accordance with the principles set forth in Rule A-11. The numbering of the hydrocarbon is retained and the point or points of attachment are given numbers as low as is consistent with the fixed numbering of the saturated hydrocarbon.

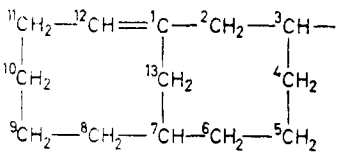
Examples:



Bicyclo[3.2.1]oct-2-yl



Bicyclo[2.2.2]oct-5-en-2-yl



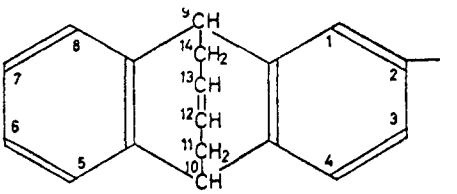
Bicyclo[5.5.1]tridec-1(12)-en-3-yl
or Bicyclo[5.5.1]tridec-12(1)-en-3-yl
(See Rule A-3.1 for double locants)

Page 33 (34). A-32.11 Add to the rule: Radicals derived from these hydrocarbons are named according to the principles set forth in Rule A-31.4.

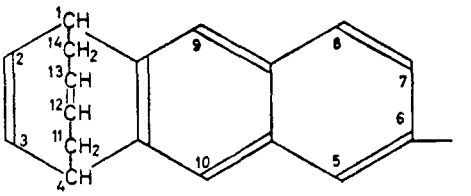
Page 35 (36). A-34 Delete: (Alternate to Rule A-35).

Page 37 (37). Add the following new rule: 34.5—Names for radicals derived from the bridged hydrocarbons considered in Rule A-34.1 are constructed in accordance with the principles set forth in Rule A-24. The abbreviated radical names naphthyl, anthryl, phenanthryl, naphthylene, etc., permitted as exceptions to Rules A-24.2 and A-24.4, are replaced in such cases by the regularly formed names naphthalenyl, anthracenyl, phenanthrenyl, naphthalenediyl, etc.

Examples:



9,10-Dihydro-9,10-(2-buteno)anthracen-2-yl

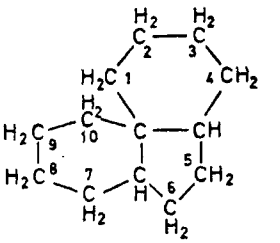


1,4-Dihydro-1,4-(2-buteno)anthracen-6-yl

Page 37 (37,38). A-35 Delete Rule A-35.

Page 37 (38). Spiro Hydrocarbons. Replace the last structure on this page with the following:

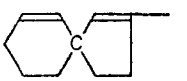
* An example of a compound where the spiro union is *not* free is:



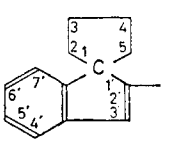
This compound is named by previous rules as dodecahydrobenz[*c*]indene.

Pages 41,42 (42). Add the following new rule: Rule A-43. Radicals. 43.1—Radicals derived from spiro hydrocarbons are named according to the principles set forth in Rules A-11 and A-24.

Examples:



Spiro[4.5]deca-1,6-dien-2-yl
(cf. Rules A-41·3 and A-11)
or 2-Cyclohexenespiro-2′-cyclopenten-3′-yl
(cf. Rule A-42·2)

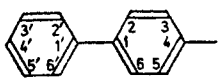


Spiro[cyclopentane-1,1′-inden]-2′-yl
(cf. Rules A-41.4 and A-24)

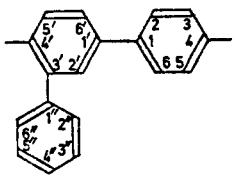
Pages 45,46 (45). Add Rules A-55 and A-56 which follow.

Rule A-55. Radicals for Identical Ring Systems (Alternative in part to Rule A-56.1). 55.1—Univalent and multivalent radicals derived from assemblies of identical hydrocarbon ring systems are named by adding "-yl", "-ylene" or "-diyl", "-triyl", etc., to the name of the ring assembly.

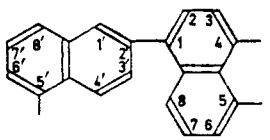
Examples:



4-Biphenylyl



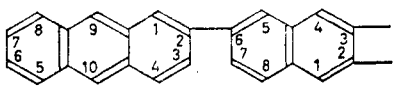
m-Terphenyl-4,4′-ylene
or *m*-Terphenyl-4,4′-diyl



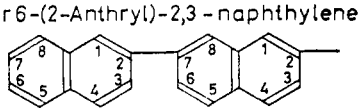
[1,2′-Binaphthalene]-4,5,5′-triyl

Rule A-56. Radicals for Non-benzenoid Ring Systems (Alternative in part to Rule A-55.1). 56.1—Radicals derived from hydrocarbon ring assemblies other than benzene ring assemblies by removal of one or more hydrogen atoms from only one ring are named with that ring as the parent radical, the remaining rings being named as substituents.

Examples:



6-(2-Anthryl)-2,3-naphthalenediyl
or 6-(2-Anthryl)-2,3-naphthylene

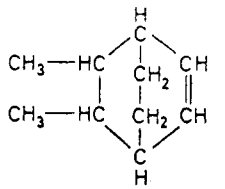


7-(2-Naphthyl)-2-naphthyl

Note: This method is used for assemblies of non-identical systems; also it is sometimes preferable to that of Rule A-55 for assemblies of identical systems when a group to be specified as a suffix or as a separate word is present in a chain attached to the ring assembly.

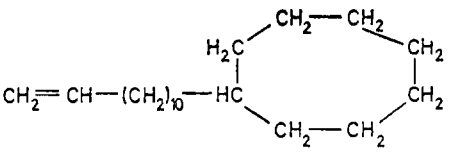
Page 46 (45). A-61.2 Add to the rule: Numbering of double and triple bonds in chains or non-aromatic rings is assigned according to the principles of Rule A-3; numbering and citation of substituents are effected as described in Rule A-2.

Page 47 (46). A-61.3 Add the example:



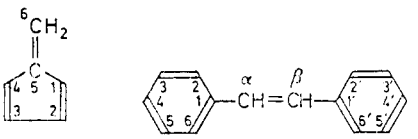
5,6-Dimethylbicyclo[2.2.2]oct-2-ene

Page 47 (46). A-61.4 Replace 1-Phenyl-1-hexadecene and its structure with the following:



12-Cyclooctyl-1-dodecene

Page 48 (46). Add the new rule: 61.6—The following are among trivial names retained for cyclic hydrocarbons with side chains: "fulvene" (for methylenecyclopentadiene) and "stilbene" (for 1,2-diphenylethylene) (see also Rule A-12.1).



Fulvene Stilbene

Page 50 (48). A-73.1 At end of this rule add: and A-61.

Page 53 (51). B-1.1 In Table I between lead and mercury add: Boron III Bora. Replace Bisma by Bismutha.

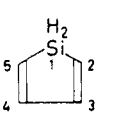
Page 68 (65). B-4.1(a) Delete Rule B-4.1(a).

Pages 68,69,70 (66,67) B-4.1(b) and B-4.2 Replace these rules with the following rules: Rule B-4. Replacement Nomenclature (also known as "a" Nomenclature)*. 4.1—Names of monocyclic hetero compounds may be formed by prefixing "a" terms (see Table I of Rule B-1.1), preceded by their locants, to the name of the corresponding hydrocarbon†. Numbering is assigned so as to give lowest numbers in the following order: first to hetero atoms in the order of Table I, next to hetero atoms as a complete set, next to multiple bonds, next to substituents as a complete set, and then to substituents in alphabetical order.

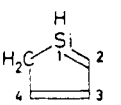
*The Stelzner Method is abandoned.

† The "corresponding hydrocarbon" is obtained from the heterocyclic compound by formally replacing each hetero atom with $=CH_2$, $\geq CH$, or $-\overset{|}{C}-$ in accord with the valence 2,3 or 4 of the hetero atom replaced.

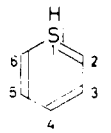
Examples:



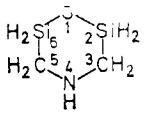
Sila-2,4-cyclopentadiene



Sila-1,3-cyclopentadiene



Silabenzene

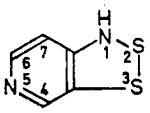


1-Thia-4-aza-2,6-disilacyclohexane

4.2—Fused heterocyclic systems may be named by prefixing "a" terms preceded by their locants, to the name of the corresponding hydrocarbon. The numbering of the corresponding hydrocarbon is retained, irrespective of the position of the hetero atoms; where there is a choice, low numbers are assigned in the following order: first to hetero atoms as a complete set, next to hetero atoms in order of Table I, and then to multiple bonds in the heterocyclic compound according to the principles of Rule A-11.3. These principles are applied in one of two ways, as follows:

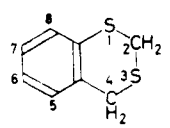
(*a*) When the corresponding hydrocarbon does not contain the maximum number of non-cumulative double bonds and can be named without the use of hydro prefixes, as for indan, then the hydrocarbon is named in that state of hydrogenation.

Example:

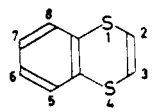


2,3-Dithia-1,5-diazaindan

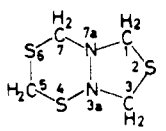
(*b*) When the two conditions of paragraph (*a*) are not fulfilled, positions in the skeleton of the corresponding hydrocarbon that are occupied by hetero atoms are denoted by "a" prefixes, and the parent heterocyclic compound is considered to be that which contains the maximum number of conjugated or isolated* double bonds, but the corresponding hydrocarbon is named in the form in which it contains the maximum number of non-cumulative double bonds. Hydrogen additional to that present in the parent heterocyclic compound is named by hydro prefixes and/or as *H* in front of the "a" terms.



4*H*-1,3-Dithianaphthalene

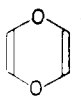


1,4-Dithianaphthalene

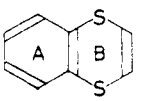


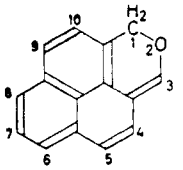
2,4,6-Trithia-3a,7a-diazaindene

* Isolated double bonds are those which are neither conjugated nor cumulative as in

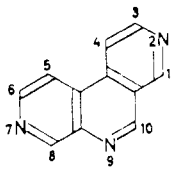


or the B ring of





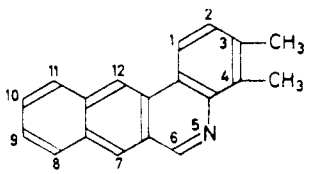
1*H*-2-Oxapyrene



2,7,9-Triazaphenanthrene

4.3—In fusion names, the "a" terms precede the completed name of the parent hydrocarbon. Prefixes denoting ordinary substitution precede the "a" terms.

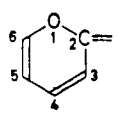
Example:



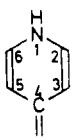
3,4-Dimethyl-5-azabenz[*a*]anthracene

Page 70 (67). B-5.11 Add to the exceptions: Also retained are furfuryl (for 2-furylmethyl), furfurylidene (for 2-furylmethylene), furfurylidyne (for 2-furylmethylidyne), thenyl (for thienylmethyl), thenylidene (for thienylmethylene) and thenylidyne (for thienylmethylidyne).

Page 71 (68). B-5.12 Revise the name of the example as shown below and add an example:



2*H*-Pyran-2-ylidene

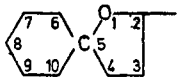


4(1*H*)-Pyridylidene
or 1,4-Dihydro-4-pyridylidene

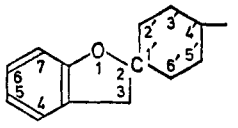
B-6.1 Add to the rule: Cationic hetero atoms follow immediately after the corresponding non-cationic atoms: oxonia follows oxa, thionia follows thia, azonia follows aza, etc. (cf. Table I of Rule B-1.1).

Page 73 (70). Add the following new rules: Rule B-12. Radicals. 12.1—Radicals derived from heterocyclic spiro compounds named by Rule B-10.1 are named according to the principles set forth in Rules A-11 and B-5.21. Radicals derived from other heterocyclic spiro compounds are named by adding "-yl", "-diyl", etc., to the name of the spiro compound (with elision of final "c", if present, before a vowel). The numbering of the spiro compound is retained and the point or points of attachment are given numbers as low as is consistent with any fixed numbering of the heterocyclic spiro compound.

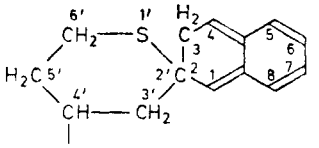
Examples:



1-Oxaspiro[4.5]dec-2-yl
(cf. Rule B-10.1)
or Cyclohexanespiro-2′-(tetrahydrofuran)-5′-yl
(cf. Rule B-11.1)



Spiro[benzofuran-2(3*H*),1′-cyclohexan]-4′-yl

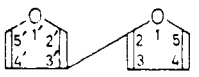


Spiro[naphthalene-2(3*H*),2′-thian]-4′-yl

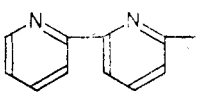
HETEROCYCLIC RING ASSEMBLIES

Page 74 Rule B-13. 13.1—Assemblies of two or more identical heterocyclic systems are named by placing the prefix "bi-", "ter-", "quarter-", etc., before the name of the heterocyclic system or radical. The numbering of the assembly is that of the corresponding heterocyclic systems, one component being assigned unprimed and the others primed, doubly primed, etc., numbers. The points of attachment are indicated by appropriate locants before the name. Other structural features are described as recorded for hydrocarbon ring assemblies in Rules A-52.1 (double bond between two components), A-52.3 (substituents), A-53.3 (hydrogenation), A-54.1 (numerical prefixes), and A-55.1 and A-56.1 (radicals), insofar as fixed numbering of the heterocyclic system allows.

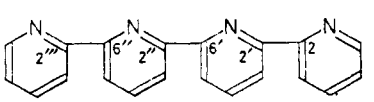
Examples:



2,3′-Bifuran
or 2,3′-Bifuryl



2,2′-Bipyridin-6-yl
or 2,2′-Bipyridyl-6-yl
or 6-(2-Pyridyl)-2-pyridyl

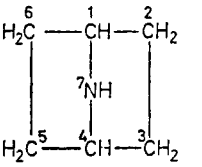


2,2′:6′,2″:6″,2‴-Quaterpyridine

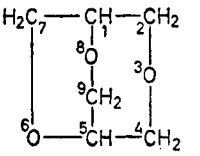
BRIDGED HETEROCYCLIC SYSTEMS

Page 75 Rule B-14. Extension of the von Baeyer System. 14.1—Bridged heterocyclic systems are named according to the principles of Rules A-31 and A-32, the hetero atoms being indicated according to Rule B-4.2 and derived radicals by the principles set forth in Rule A-31.4.

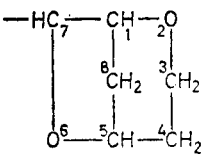
Examples:



7-Azabicyclo[2.2.1]heptane



3,6,8-Trioxabicyclo[3.2.2]nonane



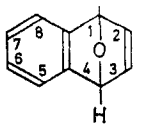
2,6-Dioxabicyclo[3.2.1]oct-7-yl

Page 75 Rule B-15. Hetero Bridges. B-15.1—A hetero polycyclic system that contains an "*ortho*-fused" or an "*ortho*- and *peri*-fused" system according to Rule A-21 or B-3 and has one or more atomic bridges is named as an "*ortho*-fused" or "*ortho*- and *peri*-fused" system. The atomic bridges are then indicated by prefixes as exemplified in the annexed Table or by Rule A-34.1. The name of a bridge containing hetero atoms is constructed from units beginning with the terminal atom that occurs first in Table I of Rule B-1.1, the final "o" of a prefix being elided before a vowel in a following prefix; to illustrate this, the formulae in the annexed Table are arranged from left to right in the same order as the prefixes. If bridges of different types are present, they are cited in alphabetical order. For examples see Rule B-15.2.

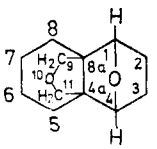
Azimino	—N=N—NH—
Azo	—N=N—
Biimino	—NH—NH—
Epidioxy	—O—O—
Epidithio	—S—S—
Epithio	—S—
Epithioximino	—S—O—NH—
Epoxy (see also Rule C-212.2)	—O—
Epoxyimino	—O—NH—
Epoxynitrilo	—O—N=
Epoxythio	—O—S—
Epoxythioxy	—O—S—O—
Furano (usually 3,4-)	—C_4H_2O—
Imino (see also Rule C-815.2)	—NH—
Nitrilo	—N=

Page 76 15.2—Systems described in Rule B-15.1 are num-

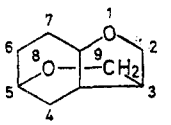
bered according to the principles set forth in Rules A-34.1 and A-34.2 for compounds containing hydrocarbon bridges. In the name of the complete compound, the name of the bridge is preceded by two locants, that for the unit cited first in a composite bridge preceding that for the other end of the bridge. Radicals derived from the polycyclic systems described in Rule B-15.1 are formed by the principles set forth in Rule B-5.



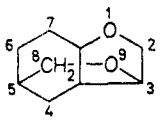
1,4-Dihydro-1,4-epoxynaphthalene



Perhydro-1,4-epoxy-4a,8a-(methanoxymethano)naphthalene



Perhydro-5,3-(epoxymethano)benzofuran



Perhydro-3,5-(epoxymethano)benzofuran

(71-82) Rules S-1 through S-7 on Steroids. Delete Rules S-1 through S-7. Rules S-1 through S-7 have been superceded by the "Revised Tentative Rules for Nomenclature of Steroids" issued by the IUPAC Commission on the Nomenclature of Organic Chemistry and the IUPAC-IUB Commission on Biochemical Nomenclature. The latter have been published in IUPAC Information Bulletin Number 33, December 1968 and Biochim. Biophys. Acta, 164(1968) 435-486 and in a number of other journals. Publication of definitive rules of the nomenclature of steroids is planned during 1972.

SECTION C

Page 82 (7). Elision of Vowels. Delete item (5) at top of this page.

Page 83 (7). Elision of Vowels. Delete item (5).

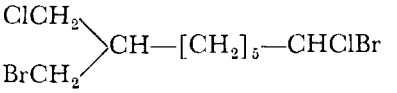
Page 83 (7). Addition of Vowels. Delete: Benzohydroximic acid (cf. Rule C-451.1, p. 123)

Page 89 (13). C-0.11 Line 6. Replace "the latter method" by "the Method of Rule C-11.11 (b)".

Page 90 (14). C-11.21 Lines 3 and 4. Change -hydrazide or carboxyhydrazide to -ohydrazide or carbohydrazide

Page 99 (23). C-13.11 At the bottom of the page add: (i) The substituent first cited in alphabetical order.

Example:



1,8-Dibromo-1-chloro-7-(chloromethyl)octane

Page 100 (24). C-13.11 Change (i) to (j). Change (j) to (k). In item (j) delete: or order of complexity. In item (j) delete the second name for the example.

Page 105 (31). C-14.11 (m) In the note change Hydro prefixes to Hydro and dehydro prefixes.

Page 106 (30). C-15.11 (c) In last line change B-2.1 to B-1.2.

Page 108 (32). C-16.11(a) (viii) Delete: (in alphabetical order). C-16.11(b) (ii) Delete: (in order of complexity). C-16.11(b) (iii) Replace the note by: Note: Hydro and syllables denoting subtraction may be treated as detachable or non-detachable.

Page 118 (44). C-0.5 At the end of the second paragraph add: For exceptional treatment of names of parent compounds requiring indicated hydrogen see Rule C-56.1.

Page 123 (49). C-58.1 Replace the name of the example by: N-Methylindene-2-carbamic acid.

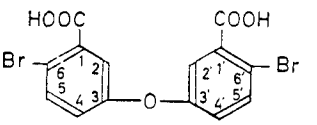
Page 124 (50). C-62.1(ii) Replace item (ii) by lowest locants to hetero atoms considered together, and if there is a choice, to the hetero atoms cited first in Table I of Rule B-1. In the order of precedence any "onia" prefix follows the corresponding "a" prefix.

Page 127 (53). C-65 Add (Alternative to parts of C-61 and C-64).

Page 128 (54). C-71.2 In third line after terminal "e" (if present) add before "yl" or, "ylene".

Page 131 (57). C-72.2 At the beginning of this rule add names of.

Page 132 (58). C-73.1 Replace the last example with



6,6′-Dibromo-3,3′-oxydibenzoic acid

Page 135 (61). C-82.1 In the heading for Table V before preference add decreasing.

Page 135 (61). C-82.2 Replace the last example with

1-Methylhydrazinium $CH_3\text{-}NH_2^+\text{-}NH_2$

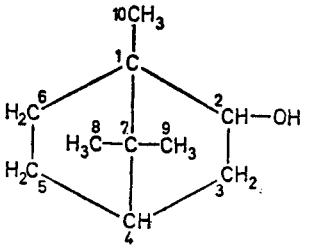
Page 137 (63). C-82.4 In the first line change C_6H_7 to $C_6H_7^+$. C-83.1 For the fourth example change (a) Cyclopropene cation to (a) Cyclopropenyl cation. C-83.1 In first example change (Rule C-82.5) to (Rule C-82.4).

Page 141 (67). C-85.1 Replace 'When two or more kinds of catonic centre' with 'When two or more cationic centres named in Table V'. Change the name in the first example to: [6-(Dimethylsulfonio)hexyl]trimethylammonium dichloride. C-85.2 In first line after centres add that cannot all be named as in Table V.

Page 143 (69). C-87.1 Add (a) before each of the following names of the examples.

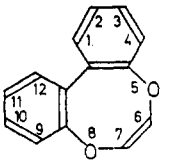
trimethylammonioacetate
trimethylammoniosulfate (note elided s)
(1-pyridinio)acetate
N-(1-Pyridinio)-p-toluenesulfonamidate

Page 150 (76). C-201.4 Replace the structure of borneol with

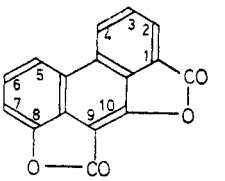


Borneol

Page 150 (76). C-202.1 After "-ol" add "-diol", etc. At the end of this rule add before "ol".
Page 153 (79). C-204.1 After "-ol" add "-diol", etc. At the end of this rule add before "ol".
Page 156 (82). C-206.2 Change the name of the second example to calcium bis(pentyl oxide).
Page 161 (87). C-216.1 Replace the name and structure of the example with

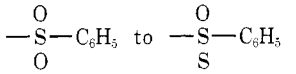
Dibenzo[*e*,*g*][1,4]dioxocin 

Page 162 (88). C-302.1 In the first line replace aldehyde with mono- or di-aldehyde.
Page 163 (89). C-303-2 In the structure for the example remove the H from -NH.
Page 165 (89). C-303.4 Renumber Rule C-303.4 as C-304.5 and place after C-304.4.
Page 163 (90). C-304.1 After "-carbaldehyde" add, "-dicarbaldehyde", etc.
Page 172 (98). C-315.1 In reference to the first example, 2(3H)-Pyrazinone add the following footnote: This and similar compounds are classified as lactams (see Rule C-475.1), but are included here and in Rule C-315.3 because they may be named in the same way as ketones.
Page 178 (104). C-331.1 In the third line before aldehyde add corresponding. In line 4 after "-di" add "-bis", etc.
Page 179 (105). C-331.2 In line 1 change form to from. In line 7 and 8 before alkylidene add alkylene or.
Page 187 (113). Correct name of third example to read phthaloyl.
Page 189 (115). C-411.1 In last line replace and alkoxyl groups with alkoxy, oxo and other groups [see Rule C-15.11(d)].
Page 189 (115). C-415.1 In line 1 after C-416.1 add and C-416.2.
Page 203 (129). C-472.2 At end of this rule add: For naming certain lactones of hydroxy acids in the steroid series see the IUPAC/IUB Revised Tentative Rules for Nomenclature of Steroids 1968 (Rules 2S-3 and 2S-4).
Page 204 (130). C-472.3 Replace the name and structure of the example with

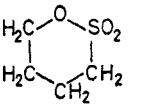


1,10:9,8-Phenanthrenebiscarbolactone

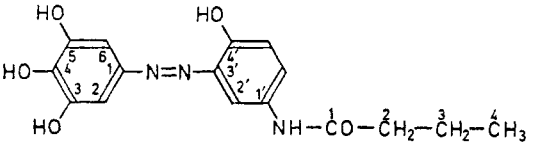
Page 207 (133). C-481.1 For the last example change the name to 1,3,5-Pentanetricarbonyl trichloride.
Page 229 (155). C-612 Change the name of the first example to Ethyl ethanesulfonohydrazonimidate.
Page 231 (157). C-631.1 Replace the last two lines of this rule with derived radicals such as benzenesulfonimidoyl or phenylsulfonimidoyl, etc. (Rule C-642.4).
Page 235 (161). C-641.5 Replace "anion or the radical name formed from the corresponding alcohol" with "cation or the radical".
Page 237 (163). C-641.7 Change the name of the fourth example of this rule to 4-Chloro-1,3-benzenedisulfonyl dichloride.
Page 238 (164). C-641.8 (c) In the structural formula of the second example change



Page 238 (164). C-641.9 Change Subsections C-0.8 and C-0.9 to Subsections C-8 and C-9.
Page 240 (166). C-642.2(b) Correct Part (b) to read as follows: (b) If the two nitrogenous groups are different, the ending for these groups is "hydrazonimidic", "hydroximimidic", or "hydrazonohydroximic", as appropriate. Change the name of the second example to Ethyl ethanesulfonohydrazonimidate.
Page 244 (170). C-661.4 In line 1 change sulfur amido acids to amides of sulfur acids.
Page 246 (172). C-671.3 Replace the name and structure of the example with

1,2-Oxathiane 2,2-dioxide 

Page 247 (174). C-701.1 After the name of example (10) add or 3-Hexaneselone.
Page 271 (198). In Table XIV delete -CNO isofulminate. Also delete the footnote referring to phenyl isocyanide.
Page 280 (207). C-912.1 In line 6 replace longer with shorter.
Page 281 (208). C-912.3 Replace the name and structure of the second example with



4′-Hydroxy-3′- [(3,4,5-trihydroxyphenyl)azo]butyranilide
(For numbering see Rule **C-825.1**)

Page 283 (210). C-912.5 In the 5th example replace (a) with (b).
Page 294 (221). C-952.1 Change the name of the second example to: Imidazole-2-carboxamide *O*-ethyloxime.
Page 300 (227). C-975.1 Change the name of the last example to: 1-Methyl-2-thiobiuret.
Page 302 (229). C-983-1 In the rule change isocarbazido- to isocarbonohydrazido-.