

ACS Committee on Nomenclature Annual Report for 1972

KURT L. LOENING

Chemical Abstracts Service, The Ohio State University, Columbus, Ohio 43210

Received February 20, 1973

Much progress in nomenclature work was made during 1972, and many publications resulted. The highlights of the nomenclature activities in 1972 are reviewed.

The ACS Committee on Nomenclature held its annual meeting at CAS in November. Progress of the work of the divisional committees and international commissions was reviewed. Documents dealing with the nomenclature of monosaccharides and the naming of unsaturated sugars were approved. Other topics discussed at the meeting included carbocations, prostaglandins, sulfuranes, labeled compounds, progress of CAS Ninth Collective Index nomenclature, and administrative matters. A subcommittee on analytical terminology was formed under the chairmanship of Dr. M. G. Mellon. "Notes on Nomenclature," a nomenclature column by Fernelius, Loening, and Adams started at the instigation of this committee, now appears regularly in *J. Chem. Ed.* (6 publications this year—see Appendix 2) and continues to be very well received.

The IUPAC Inorganic Nomenclature Commission did not meet in 1972, but Dr. Fernelius, chairman, met with Roy Adams and Warren Powell to discuss element names, chains and rings, cluster compounds, pi complexes, boron compounds, etc. in preparation for the 1973 meeting in Munich.

The IUPAC Organic Nomenclature Commission met in September in Villefranche, France. Work on Section D (organometallic compounds) was finally completed and publication in tentative form will take place in 1973. The Commission is continuing its work on the development of general guidelines for naming natural products as well as nomenclature rules for specific classes of these. New nomenclature systems, especially for rings, and labeled compounds are other topics under study.

The IUPAC Macromolecular Nomenclature Commission met in Knokke, Belgium, in June. The work on naming regular single-strand organic polymers was completed and has now been published in tentative form (see Appendix 1, item 3). The work on definitions continues, part of it in conjunction with ISO. Progress is also being made in the area of stereochemical nomenclature of macromolecules.

The IUPAC-IUB Commission on Biochemical Nomenclature met in Miami in January. The fundamental work on revising the 1965 Enzyme Nomenclature Rules was completed. The new enzyme book should appear in 1973. The Commission continues to update some of its earlier recommendations, resulting in a number of new publications (Appendix 1, items 18-23). The Commission is working with the International Union of Nutritional Sciences, trying to arrive at a mutually acceptable nomenclature for vitamin E and its derivatives (Appendix 1, item 24).

The organic nomenclature committee of NRC has been disbanded because the present close cooperation between the IUPAC and ACS organic nomenclature groups leaves the NRC committee without a useful function.

The Office of Biochemical Nomenclature of NRC functioned effectively in 1972. Close liaison between it and the Nomenclature Division of CAS is being maintained.

Some progress is being made in the revision and updating of the Universal Decimal Classification schedules for chemistry and chemical technology (UDC 54/66), both in this country through NRC and elsewhere through FID. Progress is hampered by the lack of financial support and the scarcity of qualified personnel.

All ACS divisional nomenclature committees were active in 1972 to varying degrees. These are: Division of Analytical Chemistry, Division of Carbohydrate Chemistry, Division of Fluorine Chemistry, Division of Inorganic Chemistry, Division of Organic Chemistry, Division of Polymer Chemistry, and Division of Physical Chemistry.

The Chairman of the Committee is CAS Director of Nomenclature and, through these combined offices, maintains close liaison between ACS nomenclature committees and other organizations. During 1972 cooperation with outside organizations continued to be substantial. In the area of drug and pesticide names, considerable contributions were made to the USAN (U.S. Adopted Names) program of the American Medical Association, and the INN (International Nonproprietary Names) program of the World Health Organization, the American National Standards Institute, and the International Standards Organization. We now cooperate or provide services in the nomenclature field to the following organizations:

- American Chemical Society
- American Institute of Nutrition
- American Medical Association
- American National Standards Institution
- American Pharmaceutical Association
- American Society of Hospital Pharmacists
- British Veterinary Codex Committee
- Canada Department of Agriculture
- Canadian Standards Association
- Food and Agricultural Organization
- Food and Drug Administration
- International Standards Organization
- International Union of Biochemistry
- International Union of Nutritional Sciences
- International Union of Pure and Applied Chemistry
- National Cancer Institute
- National Library of Medicine
- National Research Council
- U.S. Department of Agriculture
- U.S. Pharmacopeia
- World Health Organization

In addition, correspondence with individual authors and editors was processed regularly. CAS continues to be the headquarters for the distribution of nomenclature pamphlets and other nomenclature information.

APPENDIX 1

Official Nomenclature Publications 1972

IUPAC

1. Klesney, Stanley P., "Changes in IUPAC Nomenclature Rules for Organic Chemistry," *J. Chem. Doc.* **1972**, 12 (2), 132-8.
2. "Nomenclature of Inorganic Boron Compounds," *Pure Appl. Chem.* **1972**, 30 (3-4), 683-710.
3. "Tentative Nomenclature of Regular Single-Strand Organic Polymers," *IUPAC Inform. Bull. Apps.* **1972** (29) 1-31.
4. "Manual of Symbols and Terminology for Physicochemical Quantities and Units. Appendix II. Definitions, Terminology, and Symbols in Colloid and Surface Chemistry," *Pure Appl. Chem.* **1972**, 31 (4), 577-638.
5. "Tentative Electrochemical Definitions and Symbols," *IUPAC Inform. Bull. Apps.* **1972** (28), 1-18.
6. "Tentative Recommended Names and Symbols for Light and Related Electromagnetic Radiation," *IUPAC Inform. Bull. Apps.* **1972** (24), 1-3.
7. "Recommendations on Ion Exchange Nomenclature," *Pure Appl. Chem.* **1972**, 31 (4), 617-24.
8. "Tentative Recommendations on Nomenclature for Nuclear Chemistry," *IUPAC Inform. Bull. Apps.* **1972** (25), 1-6.
9. "Tentative Nomenclature, Symbols, Units and their Usage in Spectrochemical Analysis-II. Terms and Symbols Related to Analytical Functions and their Figures of Merit," *IUPAC Inform. Bull. Apps.* **1972** (26), 1-24.
10. "Tentative Nomenclature, Symbols, Units and their Usage in Spectrochemical Analysis-III. Analytical Flame Spectroscopy and Associated Procedures," *IUPAC Inform. Bull. Apps.* **1972** (27), 1-47.
11. "Tentative Recommendations for Nomenclature of Mass Spectrometry," *IUPAC Inform. Bull. Apps.* **1972** (17), 1-7.
12. "Tentative Recommendations for Nomenclature of Thermal Analysis," *IUPAC Inform. Bull. Apps.* **1972** (16), 1-5.
13. "Tentative Recommendations on Nomenclature for Chromatography," *IUPAC Inform. Bull. Apps.* **1972** (15), 1-14.
14. "Tentative Recommendations on Nomenclature for Contamination Phenomena in Precipitation from Aqueous Solutions," *IUPAC Inform. Bull. Apps.* **1972** (14), 1-4.
15. "Tentative Recommendations on Nomenclature of Scales of Working in Analysis," *IUPAC Inform. Bull. Apps.* **1972** (18), 1-3.
16. "Tentative List of Quantities in Clinical Chemistry," *IUPAC Inform. Bull. Apps.* **1972** (21), 1-24.
17. "Tentative Quantities and Units in Clinical Chemistry," *IUPAC Inform. Bull. Apps.* **1972** (20), 1-24.

IUPAC/IUB

18. "Definitive Rules for Nomenclature of Steroids," *Pure Appl. Chem.* **1972**, 31 (1-2), 285-322.
19. "Tentative Rules for Carbohydrate Nomenclature, Pt. I, 1969," *J. Biol. Chem.* **1972**, 247 (3), 613-35.
20. "Tentative Rules for the Nomenclature of Carotenoids," *Biochem. J.* **1972**, 127 (5), 741-52; *Eur. J. Biochem.* **1972**, 25 (3), 397-408; *IUPAC Inform. Bull. Apps.* **1972** (19), 1-44; *J. Biol. Chem.* **1972**, 247 (9), 2633-43.
21. "Abbreviated Nomenclature of Synthetic Polypeptides (Polymerized Amino Acids). Revised Recommendations (1971)," *Arch. Biochem. Biophys.* **1972**, 151, 597-602; *Biochemistry* **1972**, 11 (5), 942-4; *Biochem. J.* **1972**, 127 (5), 753-6; *Biochim. Biophys. Acta* **1972**, 278, 211-17; *Biopolymers* **1972**, 11 (2), 321-7; *J. Biol. Chem.* **1972**, 247 (2), 323-5.

22. "The Nomenclature of Multiple Forms of Enzymes, Recommendations (1971)," *Biochem. J.* **1972**, 126 (4), 769-71; *Biochim. Biophys. Acta* **1972**, 258 (1), 1-3; *Biochimie* **1972**, 54 (2), 123-5; *IUPAC Inform. Bull. Apps.* **1972** (22), 1-3.
23. "Symbols for Amino-Acid Derivatives and Peptides, Recommendations (1971)," *Arch. Biochem. Biophys.* **1972**, 150 (1), 1-8; *Biochemistry* **1972**, 11 (9), 1726-32; *Biochem. J.* **1972**, 126 (4), 773-80; *Biochim. Biophys. Acta* **1972**, 263 (2), 205-12; *Eur. J. Biochem.* **1972**, 27 (2), 201-7; *IUPAC Inform. Bull. Apps.* **1972** (23), 1-8; *J. Biol. Chem.* **1972**, 247 (4), 977-83.

Other

24. Ames, Stanley P., "IUNS-AIN Nomenclature for Vitamin E," *J. Ass. Offic. Anal. Chem.* **1972**, 55 (3), 625-30.
25. International Union of Immunological Societies, Nomenclature Committee, "Recommendations for the Nomenclature of Human Immunoglobulins," *Biochemistry* **1972**, 11 (18), 3311-12.

APPENDIX 2

Nomenclature Division Publications 1972

1. Fernelius, W. C., Kurt Loening, and Roy M. Adams, "Notes on Nomenclature," *J. Chem. Educ.* **1972**, 49 (1), 49-51; **1972**, 49 (4), 253-5; **1972**, 49 (5), 333-5; **1972**, 49 (7), 488-90; **1972**, 49 (10), 699-701; **1972**, 49 (12), 844-6.
2. Loening, K. L., "The Nomenclature of Sulfur Compounds and their Selenium and Tellurium Analogs," In: *Sulfur in Organic and Inorganic Chemistry*, Vol. 3, Marcel Dekker, New York, **1972**.

APPENDIX 3

ACS COMMITTEE ON NOMENCLATURE MEMBERS

Kurt L. Loening, Chairman
 Roy M. Adams
 Norbert M. Bikales
 Marianne Brogan
 Waldo E. Cohn
 John K. Crum
 Otis C. Dermer
 George O. Doak
 L. G. Donaruma
 W. Conrad Fernelius
 John H. Fletcher
 Robert B. Fox
 F. D. Greene
 M. Frederick Hawthorne
 Derek Horton
 Charles D. Hurd
 Stanley P. Klesney
 David Lide
 Melvin G. Mellon
 Hans Neurath
 Martin A. Paul
 Ruth Reynard
 Helen L. Reynolds
 Janet D. Scott
 Herman Skolnik
 Peter A. S. Smith
 Martin Stiles
 Robert W. White
 John A. Young