

chemist or engineer it may be a matter of convenience to find an English language equivalent for a foreign patent. It eliminates sending the patent for translation if the language is unfamiliar to the researcher. Overall, this procedure saves time and unnecessary expenditure. For the patent staff, it is important to cite all relevant art, and this would also apply to referencing equivalencies. The convenience of finding an English language equivalent plays an important role for all users.

For questions that require searching several databases, finding equivalents takes on a special significance. For example, a relevant citation retrieved from *Chemical Abstracts* files may be a Belgian patent. If a CLAIMS<sup>TM</sup> database was also searched, a similar U.S. patent (by the same assignee) may also have been retrieved. If the patents are equivalent, the U.S. patent would not have been retrieved from the *Chemical Abstracts* search since their policy is to abstract the first patent issue and then to state in the Concordance that a U.S. equivalent patent exists. For comprehensive, multifile searches which generated much output, establishing equivalents

for each hit may be laborious. However, consider the confusion of a researcher who may be unfamiliar with patent conventions. Presenting the end user with patent families not only lessens the voluminous output but also gives an organized overview of the world patent situation for a specific inquiry. This facilitates decision making on a legal or technical level.

Certain types of patent searches are difficult to formulate and carry out in any of the databases. Searches that look for specific flow diagrams, reactor designs, or specialized fabricating techniques are examples. In such cases, "a picture is truly worth a thousand words," and it is probably better to do the searching in the public search room in Washington where flow diagrams and pictures can be examined at a glance.

All these examples and comments lead to one conclusion: there is no "one-stop" shopping for patent searches. Each database offers some unique parameters, and the success rate of searching is directly related to how well the searcher understands the scope and policies of each. Only a combination of databases and searching techniques will give clients the best possible match in patents.

## ACS Committee on Nomenclature Annual Report for 1977

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Nomenclature committees, both national and international, were very active in 1977, resulting in substantial progress in many different fields. A summary of the more important meetings and accomplishments follows.

1. 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. In addition, ways of working more closely with ACS divisions, journal editors, and authors as well as general means of promoting good nomenclature were explored. The feasibility of compiling an authoritative chemical dictionary will be studied. "Notes on Nomenclature", a nomenclature column by Fernelius, Loening, and Adams started at the instigation of this committee, continues to appear in *J. Chem. Educ.* (four publications this year; see Appendix II) and to be very well received.

2. The IUPAC Interdivisional Committee on Nomenclature and Symbols (IDCNS), reorganized in 1976, functioned effectively this year. It held its annual meeting in Warsaw in August. In addition to the IUPAC publications listed in Appendix I, specific documents approved at the meeting which are in the process of being published and are therefore not recorded in Appendix I deal with the following topics: publication of papers on precipitation methods of gravimetric analysis, nomenclature for scales of working in analysis, usage of the terms "equivalent" and "normal", trivial names, trade names, and synonyms for substances used in analytical chemistry, expression of results in quantum chemistry, presentation of infrared absorption spectra in data collections, naming of elements of atomic numbers greater than 100, and quantities and units in clinical chemistry. IDCNS has improved its procedure of reviewing documents by correspondence, and it continues to study other administrative matters, such as cooperation with other international bodies and better dissemination of IUPAC recommendations.

3. The IUPAC Inorganic Nomenclature Commission met in August in Jablonna, Poland. Topics under discussion in-

cluded names for elements beyond 105, ions and radicals, boron compounds, inorganic hydrides, cluster compounds, ligand locants, heteropoly acids and anions, coordination names for nonmetal compounds, chains and rings, inorganic polymers, and stereochemical designations for coordination compounds.

4. The IUPAC Organic Nomenclature Commission also met in August in Jablonna, Poland. It continued to concentrate its efforts on Section G, a structure-based systematic substitutive nomenclature (formerly revision of Sections A, B, C, and D). This is the project for which Joy Merritt has completed the fundamental work under the supervision of Drs. Grünwald, Cross, Lozac'h, Powell, and Loening and which was funded by the American, British, German, and French Chemical Societies. As a result of this project, a number of documents dealing with the Hantzsch-Widman system of naming rings, the lambda convention, and the naming of ions and radicals will be issued in 1978. While further work on Section G is in progress, corrected versions of Sections A-F and H will be published in 1978 as a compendium of present IUPAC organic nomenclature rules. A publication on nodal nomenclature by Lozac'h, Powell, and Goodson will be forthcoming in *Angew. Chem.* to acquaint the chemical public with this new general nomenclature system. This continuing work is being supported by CAS.

5. The IUPAC Macromolecular Nomenclature Commission met in August in Warsaw. Work was completed on the recommendations for stereochemical definitions and notations for macromolecules; publication is scheduled for early 1978. The Commission is continuing its work on (a) nomenclature and symbolism of copolymers, (b) subsidiary definitions of terms relating to polymers, (c) definitions for physical properties of polymers, (d) definition and nomenclature of ladder polymers, (e) nomenclature of inorganic

polymers, (f) classification and family names of polymers, and (g) interpenetrating polymer networks. Of these items (a), (e), and (f) are at the most advanced stage with recommendations expected to be issued in 1978.

6. Biochemical nomenclature activities were reorganized between IUPAC and IUB to replace the former IUPAC/IUB Committee on Biochemical Nomenclature (CBN). Two separate nomenclature committees were established, the Nomenclature Committee of IUB (NC-IUB) to handle enzymes and other biochemical macromolecules like proteins, and a joint IUPAC/IUB Commission on Biochemical Nomenclature (JCBN) to handle primarily natural products. Both NC-IUB and JCBN held their first meeting together in Lübeck, Germany, in June. An inventory of all biochemical nomenclature activities was compiled and progress of specific projects was reviewed. Specific topics discussed included enzymes, iron-sulfur proteins, carbohydrates, vitamins, tetrapyrroles, and the compendium of biochemical nomenclature rules.

7. All ACS divisional nomenclature committees were active in 1977 to varying degrees. These are the ones of the Division of Analytical Chemistry, Division of Carbohydrate Chemistry, Division of Fluorine Chemistry, Division of Inorganic Chemistry, Division of Organic Chemistry, Division of Physical Chemistry, and Division of Polymer Chemistry.

8. Although the Office of Biochemical Nomenclature lost its financial support in the summer, it functioned effectively in 1977 and will continue to operate.

The Chairman of the Committee is CAS Director of Nomenclature and, through these combined offices, maintains close liaison between ACS nomenclature committees, CAS, and other organizations. During 1977 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 Institute  
 American Pharmaceutical Association  
 American Society of Hospital Pharmacists  
 British Crop Protection Council  
 British Veterinary Codex Committee  
 Canada Department of Agriculture  
 Canadian Standards Association  
 Drug Enforcement 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 I. OFFICIAL NOMENCLATURE PUBLICATIONS 1977

### ACS

Loening, Kurt L., "Annual Report of the ACS Committee on Nomenclature for 1976".

*J. Chem. Inf. Comput. Sci.* **1977**, 17(2), 78-81.

### IUPAC

Analytical Chemistry Division. Commission on Spectrochemical and Other Optical Procedures for Analysis, "Nomenclature, symbols, units and their usage in spectrochemical analysis. II. Data interpretation" (Rules Approved 1975).

*Anal. Chem.* **1976**, 48(14), 2294.

Analytical Chemistry Division. Commission on Spectrochemical and Other Optical Procedures for Analysis, "Nomenclature, symbols, units and their usage in spectrochemical analysis. III. Analytical flame spectroscopy and associated non-flame procedures" (Rules Approved 1975).

*Appl. Spectrosc.* **1977**, 31(4), 348-64.

Analytical Chemistry Division. Commission on Spectrochemical and Other Optical Procedures for Analysis, "Nomenclature, symbols, units and their usage in spectrochemical analysis. IV. X-ray emission spectroscopy".

*X-Ray Spectrom.* **1977**, 6(2), 104-9.

Analytical Chemistry Division. Commission on Analytical Nomenclature, "Recommendations for nomenclature of ion-selective electrodes" (Recommendations 1975).

*Pure Appl. Chem.* **1976**, 48(1), 127-32.

Analytical Chemistry Division. Commission on Analytical Nomenclature, "Recommended nomenclature for liquid-liquid distribution (solvent extraction)" (Revised 1975).

*IUPAC Inf. Bull., Append. Provis. Nomencl.*, No. 63, July 1977, 13 pp.

Analytical Chemistry Division. Commission on Analytical Nomenclature, "Recommendations for nomenclature of thermal analysis. II. DTA and TG apparatus and technique. III. DTA and TG curves".

*IUPAC Inf. Bull., Append. Provis. Nomencl.*, No. 64, July 1977, 8 pp.

Analytical Chemistry Division. Commission on Analytical Nomenclature, "Recommendations on the nomenclature of sampling in applied chemistry".

*IUPAC Inf. Bull., Append. Provis. Nomencl.*, No. 65, July 1977, 8 pp.

Inorganic Chemistry Division. Commission on Nomenclature of Inorganic Chemistry and the Commission on Nomenclature of Organic Chemistry, "Nomenclature of organic chemistry: Section D. D-O-D-2.42".

*Rev. Soc. Quim. Mex.* **1976**, 20(5), 278-86 (Spanish).

Inorganic Chemistry Division. Commission on Nomenclature of Inorganic Chemistry, "How to name an inorganic substance 1977. A guide to the use of nomenclature of inorganic chemistry: Definitive rules 1970". Pergamon Press, New York, N.Y. 1977, 36 pp.

Macromolecular Division. Commission on Macromolecular Nomenclature, "Nomenclature of regular single-strand organic polymers" (Rules Approved 1975).

*Pure Appl. Chem.* **1976**, 48(3), 373-85.

Organic Chemistry Division. Commission on Nomenclature of Organic Chemistry, "Nomenclature of organic chemistry. Section H: Isotopically modified compounds".

*IUPAC Inf. Bull., Append. Provis. Nomencl.*, No. 62, July 1977, 26 pp.

Interdivisional Committee on Nomenclature and Symbols and Physical Chemistry Division. Commission on Molecular

Structure and Spectroscopy, "Use of abbreviations in the chemical literature".

*IUPAC Inf. Bull., Append. Provis. Nomencl.*, No. 58, July 1977, 2 pp.

Physical Chemistry Division. Commission on Molecular Structure and Spectroscopy, "Symbolism and nomenclature for mass spectroscopy".

*Analysis* **1976**, 4(8), 378-82 (French).

*Org. Mass Spectrom.* **1977**, 12(3), 115-18.

Physical Chemistry Division. Commission on Colloid and Surface Chemistry, "Manual of symbols and terminology for physicochemical quantities and units. Appendix II. Definitions, terminology and symbols in colloid and surface chemistry. Part II. Heterogeneous catalysis" (Rules Approved 1975).

"Advances in Catalysis." Vol. 26, D. D. Eley, H. Pines, and P. B. Weisz, Ed., Academic Press, New York, N.Y. 1977, 351-92.

Physical Chemistry Division. Commission on Electrochemistry, "Electrode reaction orders, transfer coefficients and rate constants: Amplification of definitions and recommendations for publication of parameters".

*IUPAC Inf. Bull., Append. Provis. Nomencl.*, No. 60, July 1977, 8 pp.

Physical Chemistry Division. Commission on Electrochemistry, "Proposed nomenclature for transport phenomena in electrolytic systems".

*IUPAC Inf. Bull., Append. Provis. Nomencl.*, No. 59, July 1977, 29 pp.

#### IUPAC/IUB

Commission on Biochemical Nomenclature, "Symbols for amino-acid derivatives and peptides" (Rules Approved 1974).

*Chem. Listy.* **1977**, 71(10), 1066-79 (Czech).

Commission on Biochemical Nomenclature, "Nomenclature of corrinoids" (Rules Approved 1975).

*Pure Appl. Chem.* **1976**, 48(4), 495-502.

Commission on Biochemical Nomenclature, "Abbreviations and symbols".

*Eur. J. Biochem.* **1977**, 74(1), 1-6.

Commission on Biochemical Nomenclature, "Nomenclature of phosphorus-containing compounds of biochemical importance" (Recommendations 1976).

*Eur. J. Biochem.* **1977**, 79(1), 1-9.

*Hoppe-Seyler's Z. Physiol. Chem.* **1977**, 358(6), 599-616.

*Proc. Natl. Acad. Sci. U.S.A.* **1977**, 74(6), 2222-30.

Commission on Biochemical Nomenclature, "The nomenclature of lipids" (Recommendations 1976).

*Eur. J. Biochem.* **1977**, 79(1), 11-21.

*Hoppe-Seyler's Z. Physiol. Chem.* **1977**, 358(6), 617-31.

*Lipids* **1977**, 12(6), 455-68.

Commission on Biochemical Nomenclature, "Nomenclature of multiple forms of enzymes" (Recommendations 1976).

*J. Biol. Chem.* **1977**, 252(17), 5939-41.

#### IUPAC/IUB/IUPAB

Interunion Commission on Biothermodynamics, "Recommendations for measurement and presentation of biochemical equilibrium data".

*Biochem. J.* **1977**, 163(1), 1-7.

*Biochim. Biophys. Acta* **1977**, 461(1), 1-4.

*Eur. J. Biochem.* **1977**, 72(1), 1-7.

*IUPAC Inf. Bull., Append. Provis. Nomencl.*, No. 61, July 1977, 18 pp.

#### APPENDIX II. NOTES ON NOMENCLATURE

Fernelius, W. C., Kurt Loening, and Roy M. Adams, "Lower valent oxo acids of phosphorus and sulfur."

*J. Chem. Educ.* **1977**, 54(1), 30.

Fernelius, W. C., Kurt Loening, and Roy M. Adams, "Organic derivatives of oxo acids. Part I. Acids, salts and esters of group VIA elements".

*J. Chem. Educ.* **1977**, 54(5), 299-300.

Fernelius, W. C., Kurt Loening, and Roy M. Adams, "Organic derivatives of oxo acids. Part II. Acids, salts and esters of groups IIIA-VA elements".

*J. Chem. Educ.* **1977**, 54(8), 509-10.

Fernelius, W. C., Kurt Loening, and Roy M. Adams, "Derivatives of oxo acids. II. Insertion or infix nomenclature (The Drake Report)".

*J. Chem. Educ.* **1977**, 54(10), 610-11.

#### MISCELLANEOUS

Dermer, O. C., G. Gorin and K. L. Loening, "The standardization of chemical language".

*Int. J. Sociol. Lang.* **1976**, 11, 61-83.

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