

## Author Guidelines

### 1. Purpose of Ullmann's Encyclopedia

Ullmann's Encyclopedia is directed toward a broad readership including students, research scientists, engineers, and salespersons in industry. It is intended for readers with a scientific background who want to retrieve information on a field they are not familiar with. Please use a clear, simple style and write on a level that is neither academic nor too low. Make sure that your article gives a comprehensive, balanced, concise survey of current industrial practice on an international basis – it should not simply be an account of research in your company or institute or a historical survey.

**Only manuscripts in English are accepted.**

Please consult [sample articles](#) at

<http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554801/SampleContent.html>

### 2. Manuscript Submission

Please send a copy of the manuscript as a paper printout together with an electronic version (diskette/CD or Email) to:

Ullmann's Encyclopedia of Industrial Chemistry  
Editorial Office  
Wiley-VCH Verlag GmbH & Co. KGaA  
Postfach 10 11 61  
D-69451 Weinheim, Germany  
Fax: +49 (0)6201 606-509  
e-mail: [ullmanns@wiley-vch.de](mailto:ullmanns@wiley-vch.de)

### 3. Structure and Preparation of Manuscript - General

For the ease of further processing, please stick to the following requests:

- Do not invest time in extensive formatting of the text. All that is needed is: superscript, subscript, small caps, boldface and italic type. All other layout will be lost.
- Do not use footnote or endnote functions of a word processing software to number references, etc.
- Tables and Figures should not be incorporated in the text, but kept separately.

The "standard" Ullmann's outline for an article is as follows:

- Table of contents (Chapter 3.1)
- Abstract (Chapter 3.2)
- Introduction (Chapter 3.3)
- Physical and Chemical Properties (Chapter 3.4)
- Resources of Raw Materials (Chapter 3.5)
- Production (Chapter 3.6)
- Uses (Chapter 3.7)
- Quality Specifications (Chapter 3.8)
- Analysis (Chapter 3.9)
- Storage and Transportation (Chapter 3.10)
- Legal Aspects (Chapter 3.11)

- Trade Names (Chapter 3.12)
- Economic Aspects (Chapter 3.13)
- Environmental Protection (Chapter 3.14)
- Toxicology and Occupational Health (Chapter 3.15)
- References (Chapter 3.16)

Not all of the chapters have equal importance. Obviously the final organization of your contribution will be determined by the subject you are describing: rearrangement, combination, or elimination of some of the chapters may be necessary. Chapters should be numbered using the decimal system adopted in this set of instructions, with chapter numbers and headings in boldface.

### **3.1. Table of Contents**

The table of contents (ToC) should be preceded by the title of the article and the authors' full names and affiliations. The ToC should contain all the numbered headings. There is no need to give page numbers.

### **3.2. Abstract**

An abstract (1500 to 2000 characters) should summarize the topic with emphasis on main area of uses, processes and/or reactions.

### **3.3. Introduction**

The introduction should give the reader a brief summary of the most important aspects of your subject. Keep this section short. Start by giving a definition, chemical formula, and short description of the compound(s) you are dealing with. For relevant elements indicate their positions in the periodic table and their known number of isotopes. Briefly discuss the commercial, industrial, and societal importance of your subject. If appropriate, a short historical survey can also be given.

### **3.4. Physical and Chemical Properties**

For each material you discuss, please give physical data that are important for its characterization and handling in industrial plants and laboratories. Make certain that symbols are correct and consistent (SI Units, see also Section 5.3). Please name compounds in accordance with the IUPAC system and provide Chemical Abstracts Registration Numbers (CAS Nos.) for important compounds, in particular, for all compounds that should appear in the keyword index. The numbers can be cited in the text for individual compounds (e.g., formaldehyde [50-00-0]) or in tables. Please note that the CAS number is italicized and appears in square brackets. Chemical properties include a brief description of the important chemical reactions which the substance(s) undergo. Do not go into too much detail, instead refer to standard chemistry textbooks.

### **3.5. Resources and Raw Materials**

If necessary, discuss differences between various countries. When describing minerals, do not dwell on their mineralogy.

### **3.6. Production**

An accurate, up-to-date description of industrial production processes is one of the most important features of Ullmann's Encyclopedia. Please identify, describe, and critically evaluate all currently important processes used for the product(s) (Not just those used by the company you work for!) and try to be as impartial as possible. If you feel that you are not in the position to cover all aspects, please inform us as soon as possible. We will then find an appropriate co-author. Discuss associated issues such as raw material availability, work-up,

additional processing, production quality, or impurities. Please give important technical details (pressure, temperature, precautions, catalysts, etc.) and supply relevant illustrations, preferably simple line drawings. Make certain that relevant references, including patents, are provided. Please discuss also processes which are likely to go onstream and other future developments. Outdated processes need mentioning only if they are of historic or former economic importance. Refer to previous editions of Ullmann's when applicable.

You, as the expert, are best qualified to critically select the information the reader needs without unnecessary, confusing details. Please check that the proprietary rights of your organization are not violated, you may want to consult your patent department about this.

### **3.7. Uses**

Describe the most important end-uses and applications of the product or techniques treated in your article. Use literature references to replace detailed descriptions. Cite important patents.

### **3.8. Quality Specifications**

Describe the various grades used for marketing the product. Discuss differences in product quality caused by variations in production processes or raw materials used. If appropriate, describe the various specifications required by different countries. Standardized testing procedures must be discussed on an international basis (ASTM, NBS, ISO, DIN, etc.).

### **3.9. Analysis**

Describe the principles of analytical procedures required for assessing product quality and production control. Be brief; use references to replace detailed descriptions.

### **3.10. Storage and Transportation**

Identify special procedures and safety precautions used in the handling, storage, packaging, and transport of the end product and important byproducts. Specify important legal requirements and hazard classifications used in major industrialized countries, concentrating on Europe, Japan, and the United States (e.g., CFR, RID/ADR, IMDG code, UN No.).

### **3.11. Legal Aspects**

Important government regulations concerning products such as foods, fungicides, insecticides, and explosives must be discussed on an international basis.

### **3.12. Trade Names**

International trade names (together with producers and suppliers) are especially important for chemicals with an undefined or proprietary structure or composition. Trade names can often be incorporated in the text or tables, a separate section is not usually necessary.

### **3.13. Economic Aspects**

Please give the most recent figures available for the annual production, plant capacities, and consumption of the products discussed in your article. Important economic trends and correlations with world political events should also be described. Use discretion when deciding how many years' data to include. Consumption data should be divided into specific areas of application where appropriate. Figures should be given for all major producing countries.

### **3.14. Environmental Protection**

Environmental aspects are becoming increasingly important. Identify potential problems associated with production, handling, and use of products. Discuss measures necessary to

avoid environmental contamination and pollution. Include treatment of wastewater, off-gas, solid and liquid waste, decomposition products, heat, noise, etc. If your article is based on naturally occurring materials, compare anthropogenic emissions with natural occurrences. Note: It may be appropriate to combine this chapter with that on legal aspects (See Section 3.11).

### 3.15. Toxicology and Occupational Health

Please present all toxicological data that are important for the safe handling of the products you describe, e.g., subchronic, chronic, and acute toxicities of substances taken up by ingestion, inhalation, etc. If possible, describe symptoms of intoxication in humans. Include information on carcinogenicity, mutagenicity, and embryotoxicity.

Maximum permissible concentrations recommended by government authorities (e.g., OSHA, NIOSH) must be given when available (MAK, TLV values, etc.). Describe precautions necessary to prevent occupational disease.

### 3.16. References

References are an important part of your article and have two main functions: they provide the reader with (1) a general source of background information and (2) detailed supplementary information on specific aspects.

Please select your references carefully and number them consecutively in the order they appear in the text. In the text, each reference is represented by a number in square brackets. Two references are separated by a comma and a space (i.e., [1], [2]), but three or more without. Each reference should refer to a **single** citation of a book, journal, patent, etc. Do **not** list multiple citations under one number. Check that citations are correct: it is impossible for use to catch incorrect volume or page numbers and similar errors. Please select references and patents that are easily accessible.

If a reference may be difficult to find, provide additionally the corresponding Chemical Abstracts reference. References designed to provide background information should give a comprehensive, up-to-date review of the topic concerned. They can be cited at the beginning of the reference list under the heading "General References" but should still be numbered. Although Ullmann's Encyclopedia provides international coverage and references in foreign languages are of course allowed, references for background reading should preferably cite books and review articles written in English.

Do not cite references for every statement you make. Information that is "common scientific knowledge" does not need substantiating. However, be sure to give references for analytical methods, testing procedures, production processes, etc. Citation of appropriate references can save a lot of detail in the text.

In case you revise an article, please do NOT renumber references. Add new references starting with the next higher number than the ones in the original article (e.g., Acetic Acid has 199 references, the first number to use would then be [200]). Cross out references that are deleted.

#### Standard for Reference Citation:

##### Books

K. Weissmehl, H.-J. Arpe: *Industrial Organic Chemistry*, 3rd ed., VCH Verlagsgesellschaft, Weinheim 1997.

E. E. Sandmeyer in G. D. Clayton, F. E. Cleyton (eds.): *Patty's Industrial Hygiene and*

*Toxicology*, 3rd ed., vol. **2A**, Wiley-Interscience, New York 1981, pp. 357-360.  
J. M. Ritchie: "Local Anesthetics", in L. S. Goodman (ed.): *The Pharmacological Basis of Therapeutics*, 6th ed., Macimilian Publ. Co., New York 1980, p. 300.

#### Journals

(abbreviated according to Chemical Abstracts Service Source Index (CASSI))

C. D. Dimitrakopoulos, P. R. L. Malenfant, *Adv. Mater.* **14** (2002) 99.

H. J. Bixler, K. Johndro, R. Falshaw: "Kappa-2 carrageenan: structure and performance in two simulated dairy applications", *Food Hydrocolloids* **15** (2001) 619.

Patents (year should always be year of application)

Du Pont, WO-A2 01/94457, 2001 (M. S. McKinnon)

## 4. Figures and Tables

All figures and tables must be submitted separately from the main text and must be numbered in the order in which they appear in the text. Every figure and table must be referred to in the text, e.g., "Table 3".

**Figures.** In the case of photographs, please send us glossy paper prints of good resolution or slides. These will be returned to you after reproduction.

Please submit figures, if possible, in electronic format. In addition to the TIFF or EPS format please submit the original file format of the graphic software used (preferably vector graphic formats). Please indicate, which software (platform, version) was used.

Please create figures with 65 mm width, if possible; if the content requires it a maximum of 130 mm is allowed. Numbers, letters, and symbols must be large enough to be still 2 mm high after the figure has been reduced to the printing format. Please do not use hair lines (0.5 pt as base line thickness). Use Helvetica Narrow as character font if possible. Resolution: 600 dpi.

Please make sure the figures are suitable in size compared to each other.

For the reuse of figures that are proprietary, a request for permission is necessary (see also Chapter 6).

**Tables.** Tables should be set up with tab stops (not the space bar) and the MS Word table commands. Avoid tabs, line breaks, and paragraphs within a cell. Keep the title short and make sure that all columns have an appropriate heading. The width of a table should not exceed the portrait format of A 4 paper. For very wide tables, it is better to divide the information among two or more separate tables.

Do not use vertical lines or brackets spanning over multiple columns or rows. Use horizontal lines only above and below the column headings and at the end of the table.

## 5. Formal Requirements

### 5.1. Spelling and Punctuation

Please use American spelling (e.g., color not colour, synthesize not synthesise, etc.). If in doubt, consult Webster's New Collegiate Dictionary, Merriam Co. Springfield 1987

For style consult: The ACS Style Guide, 2<sup>nd</sup> ed., American Chemical Society, Washington DC 1997 or The Chicago Manual of Style, 14<sup>th</sup> ed., The University of Chicago Press, Chicago IL 1993.

### 5.2. Chemical Nomenclature

When referring to chemical compounds, please give their correct IUPAC name along with other trivial or common names. Do not forget CAS registry numbers where appropriate. For

IUPAC nomenclature please consult the following literature:

International Union of Pure and Applied Chemistry (ed.): Nomenclature of Organic Chemistry, Pergamon Press, Oxford 1979.

Nomenclature of Inorganic Chemistry, Blackwell Scientific Publications, Oxford 1994.

A Guide to IUPAC Nomenclature of Organic Compounds, Blackwell Scientific Publications, Oxford 1993. (<http://www.iupac.org>)

### 5.3. Units, Symbols, Abbreviations and Style

**Units.** Use the International System of Units (SI) to describe physical quantities throughout the text and in all figures and tables. Quantities with non-SI units may be cited in parentheses after quantities with SI units. A selection of the most important SI units and Symbols conversion factors for non-SI units are given in at

<http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554801/HOME>

For more extensive coverage consult standard reference works such as:

International Union of Pure and Applied Chemistry (ed.): Quantities, Units and Symbols in Physical Chemistry, Blackwell Scientific Publications, Oxford 1995.

**Symbols.** If your article involves the use of a large number of symbols, please define them in a separate list following the Table of Contents. Please define each symbol in the text at its first occurrence.

**Abbreviations.** The use of standard abbreviations is permitted. Please keep the use of other abbreviations to a minimum and define them when they are first mentioned in the text. If, however, you use a large number of abbreviations (e.g., in articles dealing with polymers), please compile a list complete with definitions and include this in your manuscript after the Table of Contents.

### 5.4. Equations and Chemical Formulas

**Equations.** Please type equations as they are to be set in the type: superscripts above and subscripts below the line. Equations that are referred to in the text may be numbered using Arabic numerals in parentheses

**Chemical Formulas.** Structural formulas, like figures and tables, should be numbered and submitted separately from the text, either as clear pencil drawing or computer-drawn. In the latter case, please do also submit the files on a disk and specify the software used. Boldface arabic numerals can be used to identify specific compounds, that are referred to it in the text. If possible, please avoid compound numbers in reaction schemes.

Please note: Benzene rings should be drawn double bonds and not a circle. If not individually specified, alkyl substituents should be denoted by R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, etc.; metals by M; halogens by X.

## 6. Copyright Material

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Ullmann's Encyclopedia of Industrial Chemistry  
Wiley-VCH Verlag GmbH & Co. KGaA  
Postfach 10 11 61  
D-69451 Weinheim  
Germany

Tel: +49 (0)6201 606-246 / -209

Fax: +49 (0)6201 606-509

Email: [ullmanns@wiley-vch.de](mailto:ullmanns@wiley-vch.de)