

## ORIGINAL SCIENTIFIC PAPER

**Instructions for original scientific paper:**  
Your paper should be consisted of following five general sections:

Numeration	Headings
1	<b>Introduction</b>
2	<b>Materials and Methods</b>
3	<b>Results and discussion</b>
4	<b>Conclusions</b>
	<b>Acknowledgement</b> (optional)
5	<b>References</b>

### What Goes into Each Section?

Paper headings	What it should contain?
<b>1. Introduction</b>	<ul style="list-style-type: none"> <li>➤ Introduce the question/s tested by the experiments described in the paper</li> <li>➤ Explain why this is an interesting or important question/s</li> <li>➤ Describe the approach used in sufficient details (that a reader who is not familiar with the technique will understand what was done and why), and</li> <li>➤ Very briefly mention the conclusion of the paper.</li> </ul>
<b>2. Materials and Methods</b>	<ul style="list-style-type: none"> <li>➤ This section should contain a description of the materials used and methods employed in form which makes the results reproducible, but without detailed description of already known methods.</li> </ul> <div style="background-color: #e0e0e0; padding: 5px; text-align: center;"><b>Important notes:</b></div> <ul style="list-style-type: none"> <li>➤ <i>The details of a published protocol do not need to be reproduced in the text but an appropriate reference should be cited – e.g., simply indicate “as described by Timperley et al. [4]”. Any changes from the published protocol should be described.</i></li> <li>➤ <b>Do not quote or cite your laboratory manual!</b></li> <li>➤ <i>If applicable, provide a brief description of statistical tests you have used (statistics are methods!)</i></li> </ul>
<b>3. Results and Discussion</b>	<p><b>Results</b></p> <ul style="list-style-type: none"> <li>➤ Summarize the data collected and if applicable their statistical treatment (includes only relevant data, but gives sufficient detail to justify your conclusions).</li> <li>➤ Use equations, figures, and tables only where necessary for clarity and brevity.</li> </ul> <p><b>Discussion</b></p> <ul style="list-style-type: none"> <li>➤ The purpose of the discussion is to interpret the results.</li> <li>➤ Be objective; point out the features and limitations of the work.</li> <li>➤ Relate and compare your results to current knowledge in the field and to your original purpose in undertaking: Have you resolved the problem? What exactly have you contributed? Briefly state the logical implications of your results.</li> <li>➤ Suggest further study or applications if warranted.</li> </ul>
<b>Acknowledgement</b> (optional)	<ul style="list-style-type: none"> <li>➤ Advice or other kinds of assistance (thinking up, designing, or carrying out the work) can be included in this section.</li> </ul> <div style="background-color: #e0e0e0; padding: 5px; text-align: center;"><b>Important notes:</b></div> <ul style="list-style-type: none"> <li>➤ <i>Authors always acknowledge <b>outside reviewers</b> of their drafts and any <b>sources of funding</b> that supported the research.</i></li> <li>➤ <b>Acknowledgments are always brief and never flowery.</b></li> </ul>
<b>4. Conclusions</b>	<ul style="list-style-type: none"> <li>➤ The purpose of the Conclusions section is to put the interpretation into the context of the original problem which has to be brief.</li> <li>➤ Your conclusions should be based on the evidence presented.</li> <li>➤ Summarize your major points succinctly.</li> <li>➤ Point out the significance of your results and discuss the open questions that remain in the area and future directions.</li> </ul> <div style="background-color: #e0e0e0; padding: 5px; text-align: center;"><b>Important note:</b></div> <ul style="list-style-type: none"> <li>➤ <i>Do not include irrelevant material.</i></li> </ul>
<b>5. References</b> (Literature cited)	<ul style="list-style-type: none"> <li>➤ Literature references should be numbered and listed in order of citation in the text.</li> <li>➤ In the text, enclose reference numbers in square brackets, e.g. [1], [2], [3] ... etc.</li> <li>➤ They should be selective rather than extensive.</li> </ul> <div style="background-color: #e0e0e0; padding: 5px; text-align: center;"><b>Important notes:</b></div> <ul style="list-style-type: none"> <li>➤ <b>Avoid references to works that have not been peer-reviewed.</b></li> <li>➤ <b>Avoid using endnotes or footers.</b></li> </ul>

## PAPER ELEMENT RULES

### Tables

If applicable, you should present Table/s in your manuscript. The Tables have to be cited in the text consecutively.

*Example 1- In order to prevent the growth of Legionella spp. different hot and cold water temperatures are required (Table 1)*

*Example 2 - In Table 2 is presented .....*

- Each **table needs a short descriptive title above it (Arial font size 9, bold)** and **should be numbered consecutively with Arabic numerals** (see *Table title in the example below*).
- **Table column headings should clearly define the data presented.**
- If necessary, suitably **identified footnotes (font Arial size 8)** should be typed below the table and should be referred to by **superscript lowercase letter**.

#### Table from example (with footnote)

**Table 1. Water temperatures required in hot and cold water systems in order to prevent the growth of *Legionella* spp.**

<b>Water system</b>	<b>Safe operating temperature</b>
Hot water storage (calorifier)	At least 60 °C
Hot water distribution	At least 50 °C
Cold water storage and distribution	*20 °C or below

\*Impossible in the tropics and very difficult elsewhere in the summer months. The first objective must always be to keep the system clean and to avoid water stagnation.

#### Important notes:

- If applicable, take care to include all the units of measurement.

### Figures

Figures (photographs, illustrations, diagrams and schemes) need to be cited in the text consecutively.

*Example 1- Taking a lubrication survey is a must (Figure 1).*

*Example 2 – In the Figure 2 is shown .....*

- Figures **should be numbered consecutively with Arabic numerals** in order to which they are referred.
- Make sure that the **Figure caption** (text explaining figure) **is included after the figure or image** (below it).
- Each figure or group of Figures should be planned to fit, after appropriate reduction, into the area of either one or two columns of text. The **maximum finished size of a Figure is 8.0 cm width** (*Example – Figure 1*). Be careful about the details which should be visible in this given size (*Bad example – Figure 2*).
- **Figures should be** also sent in electronic form **as TIFF or JPG files with minimum 300 dpi or higher resolution.**

#### Figure examples



**Figure 1. Taking a lubrication survey**

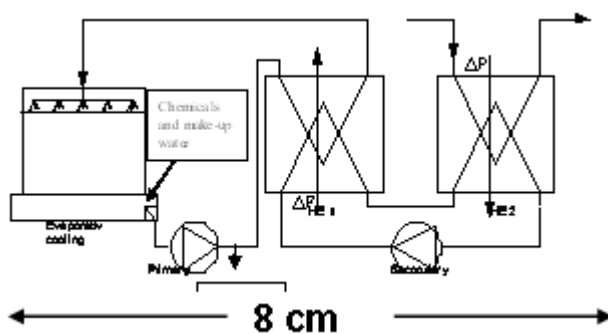


Figure 2. Cooling method with cooling tower loop

## Units

The **SI** (Système Internationale d'Unités) for quantities and units **should be used throughout the whole text**. If nomenclature is specialized, nomenclature section should be included at the end of the manuscript, giving definitions and dimensions for all terms.

The **names of chemical substances** should be in accordance with the *Le Système Internationale d'Unités* - SI. The results of elemental analyses of organic compounds should be given in the following form:

- Anal. C<sub>12</sub>H<sub>16</sub>O (176.26).
- Calc'd: C 81.77; H 9.15; O 9.08 %.
- Found: C 81.63; H 9.36; O 9.01 %.

When a large number of compounds have been analyzed, the results should be given in tabular form.

**The names of microorganisms** should be given in *italic* lettering.

Microorganisms are named using binomial nomenclature (viruses are exceptions)

Binomial nomenclature employs the names of the two lower level taxa, genus and species, to name a species

Conventions when using binomial nomenclature include:

- Genus comes before species (e.g., *Escherichia coli*).
- Genus name is always capitalized (e.g., *Escherichia*).
- Species name is never capitalized (e.g., *coli*).
- Both names are always italicized (e.g., *Escherichia coli*).
- The genus name may be abbreviated but only used in conjunction with the species name (i.e., *E. coli*)

When naming microorganism strain name than the genus name comes first, species name second and strain name last and never capitalized. Everything should be *italicized* except prefix subsp. (e.g. *L. lactis* subsp. *lactis*).

## Citations

It is essential **to credit published papers** for work mentioned in your manuscript.

When citing in the text the surname of **one or two authors may be given** (example: Wirtanen and Raaska [6]), whereas in case of more than two authors they should be quoted only the name of first author *et al.* (example: Lelieveld *et al.*, [2]).

### Important notes:

- In text citations should refer to reference list.
- Do not rewrite title of references in text.

## Abbreviations

Use standard abbreviations (e.g. hr, min, sec, etc) instead of writing complete words.

- **Define all other abbreviations the first time they are used, and then subsequently use only the abbreviation** [e.g. Ampicillin resistant (AmpR)].
- As a general rule, **do not use an abbreviation unless a term is used at least three times in the manuscript.**
- With two exceptions (the degree symbol - e.g. 10 °C and percent symbol - e.g. 1%), a **space should be left between numbers and the accompanying unit** (e.g. 1 cm).
- For **litre** is used abbreviation **L** and not **l** (e.g. 1 L, 1 mL etc).
- In general, abbreviations should not be written in the plural form (e.g. 1 mL or 5 mL, not mLs).

## References

Literature references should be:

- A. **Numbered with Arabic numerals in square brackets** and
- B. **Listed in order of citation in the text.**

References should be cited as follows:

### **Books/Manuals:**

- [1] Lelieveld M. L. H., Mostert A. M., Holah J. (Eds). (2005). *Handbook on hygiene control in the food industry*. Woodhead Publishing Ltd, Cambridge, UK.
- [2] Chum H., Baizer M. (1985). *The Electrochemistry of Biomass and Derived Materials*, ACS Monograph 183, American Chemical Society, Washington, DC, pp. 134–157.

### **Book chapters:**

- [3] Timperley D. A., Lawson G. B. (1979). *Test rigs for evaluation of hygiene in plant design*. In: Jowitt R. (ed.), *Hygienic design and operation of food plant*. Ellis Horwood Publishers, Chichester, 79 106.

### **Journals:**

- [4] Graßhof A. (1980). *Studies on the flow behaviour of fluids in cylindric dead spaces in pipeline systems*. Kieler Milchwirtschaftliche Forschungsberichte 32 (4), pp. 273-298.

### **Scientific meetings:**

- [5] Wirtanen G., Raaska L. (2005). *Food safety regulations, standards and guidelines in Europe*. In 36<sup>th</sup> R3-Nordic Symposium & 5h European Patenteral Conference, Linköping, Sweden, pp.151-160.

### **Standards/Documents:**

- [6] DIN. (1998). *DIN 11851: Fittings for the food, chemical and pharmaceutical industry - Stainless steel screwed pipe connections - Design for rolling in and welding-on*.
- [7] EHEDG. (2004). *EHEDG Doc. No. 2: A method for the assessment of in-place cleanability of food processing equipment*. (3rd Ed.)

### **Laws/Regulations/Rulebooks:**

- [8] Republic of Macedonia Government. (2010). *Law on Food Safety*. Official Gazette, 157/10.
- [9] European Parliament and Council. (2004). *Regulation (EC) No 852/2004 on the Hygiene of Foodstuffs*. O. J. L 139/1.
- [10] Republic of Macedonia Food Safety Agency. (2010). *Rulebook on Nutritional and Health Claims for Commercial Purposes in Food labelling, Presentation and Advertising*. Official Gazette, 65/13.

### **Online citation:**

For the **web references**, as a minimum that should be given are the full URL and the date when the citation is accessed. Any further information, if available (author names, dates, reference to a source publication, etc.) should also be given.

#### **Example:**

- [11] Jensen B. B. B., Friis A. (2003). *Critical wall shear stress for the EHEDG test method*. Chemical Engineering and Processing, 43  
<URL:[http://www.sciencedirect.com/science?\\_ob=ArticleURL&\\_udi=B6TFH-492058Y1&\\_user=10&\\_coverDate=07%2F31%2F2004&\\_rdoc=1&\\_fmt=high&\\_orig=gateway&origin=gateway&\\_sort=d&\\_docanchor=&view=c&\\_searchStrId=1739002169&\\_rerunOrigin=google&\\_acct=C000050221&\\_version=1&\\_urlVersion=0&\\_userid=10&md5=01d8a56c3edfe7f72149dee479345c5b&searchtype=a](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TFH-492058Y1&_user=10&_coverDate=07%2F31%2F2004&_rdoc=1&_fmt=high&_orig=gateway&origin=gateway&_sort=d&_docanchor=&view=c&_searchStrId=1739002169&_rerunOrigin=google&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=01d8a56c3edfe7f72149dee479345c5b&searchtype=a). Accessed 16 July 2004.