



## The title should be concise, informative and representative of the contents of the manuscript

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- 3) Names, affiliations, current e-mail and postal addresses must be given for all authors

### Keywords

5 keywords or phrases in alphabetical order, separated by commas. E.g.: Biomaterials, Machinery Design, Manufacturing, Mechanics, Processes Automation...

### Abstract

An abstract of no more than 200 words should include a brief overview of the contents and conclusions of the paper. The heading of this section should not be numbered.

## 1 Introduction

For the main text a numbered subdivision into introduction, a materials and methods section, results, discussion and conclusion is recommended.

### 1.1 Text layout

The main text is to be written in justification, in Arial 10 pt., with a standard single line spacing. Please structure the text with paragraphs. A distance of 6 pt. must be maintained between two paragraphs. An emphasis within the text is to be marked in italics.

Do not use any field functions of MS Word. Turn off automatic hyphenation and do not insert hyphens to separate syllables manually at the end of the line.

Use the en dash (–), with the key combination Ctrl + Minus (on the num block) to indicate spans or differentiation. There are no spaces before or after the en dash, e.g. 300–400 °C, [1–4], p. 45–51).

The International System of Units (SI) should be used to specify physical quantities. With a few exceptions, a space must be inserted between the numerical value and the corresponding unit symbol, e.g. 0,5 µm, 4 m/s, 56 %, 100 °C, but: 90°. To avoid a line break between the value and the unit symbol, insert nonbreaking spaces with the key combination Ctrl + Shift + Spacebar.

Operators (+, –, ·, =, >, < etc.) are also separated from values with spaces, e.g. 3 + 4 = 7 or 5 · 10<sup>-6</sup> K<sup>-1</sup>.

Use tab stops or other commands for indents, not the space bar.

### 1.2 Tables

Tables must be embedded into the text at the appropriate points and not supplied separately. Please submit tables as editable text and not as images.

All tables should be provided with a numbered table heading. The following formats are to be respected for the heading: Arial 10 pt. (table and number), spacing before: 6 pt., spacing after: 2 pt., line spacing: single spaced, left justification, tab stops at: 9, 11, 13.5 and 16 mm from the left.

Separate layout rules also apply for the table text. The first row of the table should have a top and bottom border, the last row is marked with a bottom border. All other rows remain borderless. The table text can be left-justified or fully justified. The line spacing is 8.5 pt., spacing before: 6 pt., and spacing after: 2 pt.

Table headings and tables are to be separated from the main text body by a blank line. Tables should be presented in the form shown in Table 1.

*Table 1: Example*

	<b>Text size</b>	<b>Spacing before</b>	<b>Spacing after</b>
table heading	Arial 10 pt	6	2
table text	Arial 10 pt	6	2

## **2 Materials and methods**

### **2.1 Illustrations**

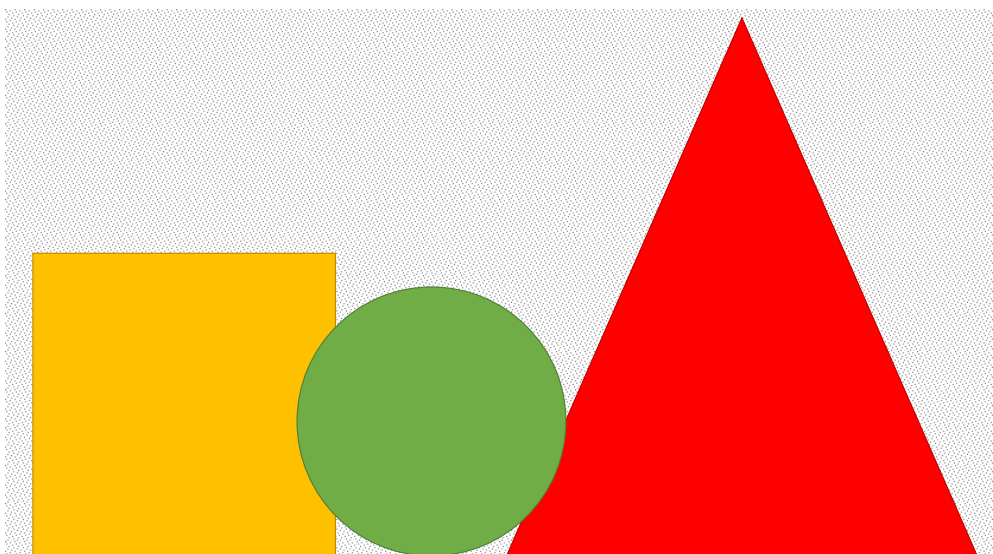
Images and diagrams should be used in moderation. Avoid duplicating data presented elsewhere in the article.

They should be placed within the text at the appropriate points.

All illustrations are to be accompanied by a descriptive, consecutively numbered caption. No punctuation is to be included after the number, nor is any punctuation to be placed at the end of the caption. The captions must be formatted as follows: Arial 10 pt. (numbers and captions), spacing before: 6 pt., spacing after: 2 pt., line spacing: 8.5 pt., left-justified, tab stops at 9, 11, 13.5 and 16 mm.

Captions and illustrations are to be separated from the main text body by a blank line.

Authors must ensure that lettering within illustrations is legible. The minimum font size for this is 8 pt (equivalent to 2 mm in height for capital letters); lines should be evenly wide and no thinner than 0.5 pt. Avoid effects such as shading, outlines, etc.



*Figure 1: Example*

Figures will be reproduced online exactly as supplied, with no redrawing or relabelling. Therefore, colour illustrations and photographs should be submitted as RGB (8 bits per channel) with a minimum resolution of 300 dpi. Line drawings and graphs should have a resolution of 600 to 1000 dpi.

Note: *Technologies for Lightweight Structures* reserves the right to reproduce and distribute selected online issues in print. Please take into consideration that the respective articles will be printed mainly in black and white. Graphs with coloured lines and keys, contour maps, model outputs, etc. may not reproduce adequately if converted directly into greyscale. In particular, red and blue appear to be the same shade of grey when converted.

Therefore, we strongly advise that you optimise your illustrations for greyscale reproduction:

Provide black and white patterns and dotted or dashed lines to depict different elements, use strong colour contrasts and avoid text and lines in very pale colours (such as yellow), etc.

### 3 Results

#### 3.1 Equations and Chemical Structures

Equations should be produced using the Word Equation Editor.

$$(x + a)^n = \sum_{k=0}^n \binom{n}{k} x^k a^{n-k} \quad (1)$$

Any drawing software can be used to create chemical structural formulas and the results can be inserted into the text as images (PNG-, TIF- or JPG-format). No hand-drawn formulas will be accepted.

Equations and formulas must be numbered consecutively in parentheses (starting from 1). For formatting: Arial 9 pt. or the symbol character sets with an indent of 12.8 mm from the left, line spacing: 9.5 pt., spacing before and after: 11 pt.. Numbering right-justified with tab stop at 118 mm.

### 4 Discussion and conclusion

#### 4.1 References

References are numbered consecutively in the order in which they are cited in the text, starting from one, and placed in square brackets (both in the text and in the reference list at the end). Please ensure that every reference cited in the text is also present in the reference list (and vice versa). When referring to a reference item in the main text, please simply use the reference number, as in [2]. Multiple references are separated by comma or en dash, e.g. [2, 4, 5–7]. Please do not use automatic numbering in the list of references.

The list of references must be formatted in Arial 10 pt., line spacing 12.75 pt., spacing after: 6 pt., tab stops at 8 and 11 mm from the left.

##### 4.1.1 Examples

*Journal article (print)*

Shen, T. D.; Schwarz, R. B.: Bulk ferromagnetic glasses prepared by flux melting and water quenching. *Appl. Phys. Lett.* 75 (1999) 1, pp. 49–51.

Ideally, the names of all authors should be provided, but the usage of “et al” in long author lists will also be accepted.

Journal names should be abbreviated according to the [ISSN List of Title Word Abbreviations](#). If you are unsure, please use the full journal title.

*Journal article (online)*

Chiang, W.-Y.; Hu, C.-H.: Effect of Matrix Graft Modification Using Acrylic Acid on the PP/Mg(OH)<sub>2</sub> Composites and its Possible Mechanism. *J. Polym. Res.*, 7 (2000) 1, pp. 15–20. doi: 10.1007/s10965-006-0099-7.

Please insert the DOI number as noted above (if available). The DOI number is generally displayed in the referred publication or it can be found by searching at [Crossref](#).

*Book*

Gibson, L.J.; Ashby, M.F.: *Cellular solids: Structure & properties*. Oxford: Pergamon Press, 1988.

*Book chapter*

Berry, M.: Microcellular injection molding. In: Kutz, M. (ed.). *Applied plastics engineering handbook*. Burlington: Elsevier Science, 2011, pp. 215–226.

*Online document*

Cartwright, J.: Big stars have weather too. IOP Publishing PhysicsWeb, 2007.  
<http://physicsweb.org/articles/news/11/6/16/1>. (accessed 26 June 2007).

*Proceedings*

Barnett, R. L.; Glauber, J. B.: Automotive lifts - Unrestrained v. restrained swing arms. In: *Proceedings of the ASME International Mechanical Engineering Congress and Exposition 2009, IMECE2009, 2010*, pp. 373-387.

*Standards*

IEEE Standard 308: IEEE Criteria for Class IE Electric Systems, 1969.

*Patents*

Smith, D., Hodges, J.: British Patent Application 98765, 1925.

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All inquiries concerning the author guidelines should be addressed to [tls-journal@tu-chemnitz.de](mailto:tls-journal@tu-chemnitz.de).

## Acknowledgements

## References

- [1] Shen, T. D.; Schwarz, R. B.: Bulk ferromagnetic glasses prepared by flux melting and water quenching. *Appl. Phys. Lett.* 75 (1999) 1, pp. 49–51.
- [2] Chiang, W.-Y.; Hu, C.-H.: Effect of Matrix Graft Modification Using Acrylic Acid on the PP/Mg(OH)<sub>2</sub> Composites and its Possible Mechanism. *J. Polym. Res.*, 7 (2000) 1, pp. 15–20. doi: 10.1007/s10965-006-0099-7.
- [3] Gibson, L. J.; Ashby, M. F.: *Cellular solids: Structure & properties*. Oxford: Pergamon Press, 1988.
- [4] Berry, M.: Microcellular injection molding. In: Kutz, M. (ed.). *Applied plastics engineering handbook*. Burlington: Elsevier Science, 2011, pp. 215–226.
- [5] Cartwright, J.: Big stars have weather too. IOP Publishing PhysicsWeb, 2007.  
<http://physicsweb.org/articles/news/11/6/16/1>. (accessed 26 June 2007).
- [6] Barnett, R. L.; Glauber, J. B.: Automotive lifts - Unrestrained v. restrained swing arms. In: *Proceedings of the ASME International Mechanical Engineering Congress and Exposition 2009, IMECE2009, 2010*, pp. 373-387.
- [7] IEEE Standard 308: IEEE Criteria for Class IE Electric Systems, 1969.
- [8] Smith, D.; Hodges, J.: British Patent Application 98765, 1925.