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

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

Abstract

An abstract of maximum 200 words should comprise a brief review of the contents and the conclusions of the paper. The heading of the section should not be numbered.

# Introduction

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

## Body text

The body text is justified, font size Arial 10 pt normal. The line spacing for the body text is single spaced, spacing after 6 pt. An emphasis within the text is to be marked in italics.

Do not use field functions in MS Word. Turn off the automatic hyphenation and do not manually insert hyphens to divide syllables 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. They are closed up to the joined words without spaces before or after, e.g. 300–400 °C, [1–4], S. 45–51).

The International System of Units (SI) should be used for all data. In the expression for the value of a quantity, the unit symbol, with only a few exceptions, is placed after the numerical value and a space is left between the numerical value and the 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 ∙
10-6 K-1.

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

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

Special 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 aligned left or centered. The line spacing is 8.5 pt, spacing before 6 and spacing after 2 pt.

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

Table 1: Example

|  |  |  |  |
| --- | --- | --- | --- |
|  | Text size | Spacing before | Spacing after |
| table heading | Arial 9 pt | 6 | 2 |
| table text  | Arial 10 pt | 6 | 2 |

# Materials and methods

## Illustrations

Images and diagrams should be used in moderation. Please make sure that the data presented in them do not duplicate results described elsewhere in the article.

They are to be numbered separately and continuously. They should be placed within the text at the appropriate points.

Illustrations should be provided with captions describing accurately what the image depicts. No punctuation is to be included after the number, nor is any punctuation to be placed at the end of the caption. Format the captions in Arial 10 pt with line spacing of 8.5 pt aligned left and tabs at 9, 11, 13.5 and 16 mm. The spacing to the image is 6 pt, to the following text 2 pt.

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

Authors must ensure that the labelling of the figures is legible. The minimum font size for lettering appearing in a figure should be 8 pt size (equivalent to 2 mm in height for capital letters) at final width; lines should not be thinner than 0.5 point and should be of uniform density. Avoid effects such as shading, outline letters, etc.



Figure 1: Good quality figure

Figures will be reproduced online exactly as supplied, with no redrawing or relabelling. Therefore, color illustrations and photographs should be submitted as RGB (8 bits per channel) with a resolution of at least 300 dpi at final size. Line drawings and graphs must have exported resolution between 600 and 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. will not reproduce adequately if converted directly to greyscale. In particular, red and blue appear to be the same shade of gray when converted.

Therefore, we strongly advise you to optimize your illustrations for grayscale reproduction:

Provide art that contains black and white patterns and dotted or dashed lines to depict different elements, avoid light-colored (such as yellow) text, etc.

# Results

## Equations and Chemical Structures

Equations should be produced using Word Equation Editor.

 $\left(x+a\right)^{n}=\sum\_{k=0}^{n}\left(\genfrac{}{}{0pt}{}{n}{k}\right)x^{k}a^{n-k}$ (1)

Chemical structures should be produced with the use of any commercially available drawing package and inserted into the text as images (PNG-, TIF- or JPG-format). No hand-drawn chemical structures will be accepted.

The designation of the formulas is done with consecutive numbering, starting from one, in parentheses (both in the text as well as directly in the formula). Here you should use Arial 8 pt or the symbol character sets. The formulas are to be placed in the text with an indention of 12.8 mm from the left. Please respect the line spacing of 9.5 pt. before and the spacing of 11 pt after the formula. The tab for the formula numbering is to be set at 118 mm. Numbering is right-justified.

# Discussion and conclusion

## References

Individual 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]. In the list of references please do not use automatic numbering.

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### 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)2 Composites and its Possible Mechanism. J. Polym. Res., 7(1) (2000), 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.

References

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

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

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

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