How to Prepare Charts and Tables*

Preparation of Charts

For the variety of chart types, such as: XY plot, surface, column, bar, line, pie, area, doughnut, radar, bubble, stock, cylinder, cone, pyramid, etc., use the following basic formatting rules:

- **Chart size**: The majority of charts should fit within the double columns of 8.1 cm width. However, large charts may occasionally span both columns.
- **Background**: Draw the charts on white background with no surrounding borders.
- **Plot area**: The plot area has a white background as well.
- **Axis format**: Show the axis lines as solid black lines. Plot both major and minor tick marks inside the plot area. Place the tick mark labels next to axis.
- **Axis titles**: Show the titles on white background with no surrounding borders. Use words rather than symbols. For example, write the quantity “Time” or “Time, t,” not just “t.” Enclose the measuring units in parentheses. Do not label axes with measuring units only. If the axis quantity is dimensionless, simply omit the parentheses or use the abbreviation for dimensionless units, (d.u.). In case the measuring unit is somehow unimportant, use the abbreviation for arbitrary units, (a.u.). Include unit multipliers in the parentheses before the abbreviation of the measuring unit, for example, \(10^3 \text{ K}\).
- **Gridlines**: Show the gridlines as dashed lines.
- **Chart title**: Place the chart title on top of the figure.
- **Legend(s)**: Surround the legend(s) with solid black borders on white background.
- **Data series**: Display the data series in the chart with appropriate lines and markers to distinguish different data series from each other.
- **Figure Captions**: Place the figure captions with 6 pt spacing below the charts. If a figure has two (or more) charts, add chart labels “(a),” “(b),”…, correspondingly.
- **Font**: Use font Arial size 10 for the legend(s), chart title, axis titles, and figure captions.

**Do not:**

- include figure captions as part of the charts.
- put figure captions in “text boxes” linked to the charts.
- use colors unless specifically needed and will remain distinct when printed in grayscale.

Place the charts in the paper as centered images with “Inline with Text” wrapping. Refer to figure captions with the abbreviation “Fig.” Use linear, logarithmic or double-logarithmic scales to highlight important details. Figs. 1 and 2 show sample XY charts with linear and logarithmic scales.

![Chart Title](chart1.png) ![Chart Title](chart2.png)

Fig. 1. A sample XY chart (linear Y scale).  Fig. 2. A sample XY chart (logarithmic Y scale).

* By Dobri Atasnov Batovski, Deputy Editor, AU J.T.

(Con’t. on inside back cover)
Preparation of Tables

The formatting requirements for tables are listed below (see also the sample Table 1):

- **Table size**: The standard table width should not exceed the column width to avoid truncation of table edges. Tables consisting of many rows can continue on the next column (page) including an additional sub-title “Table xx. (continued).” Select wisely the number of rows and columns. Split large tables into smaller ones where applicable. Large tables consisting of many columns may span both columns.
- **Background**: Show the tables on white background.
- **Table grid**: Draw the tables in black with solid grid borders.
- **Table title**: Use short table titles. Place the table title with 6 pt spacing above the tables. Number the tables with decimal numerals. Capitalize the first word in the table title with the rest in lower case.
- **Body of table (table cells)**: Include only essential data which is needed to illustrate or prove a point. Clearly indicate the measuring units. Capitalize only the first word in each cell of the table.
- **Table footnote(s)**: Place the table footnote(s) with 6 pt spacing below the tables to provide details of explanation related to the table content.
- **Font**: Use font Arial size 10 for the table title, the table content and the table footnote(s).

Do not:

- abbreviate the word “Table.”
- use relative clauses for the table title.
- include the same data series in two equivalent forms, such as a chart and a table.
- put table titles, table content, or table footnotes in “text boxes” linked to the tables.
- embed hard Returns, Tabs or multiple consecutive Spaces within table cells.
- include line space between table footnotes.
- use font size less than 10.

The following requirements apply to both figures and tables:

- Position all the figures and tables at the top and bottom of each column. Both figure caption and figure (as well as both table title and table) must be shown on the same column (page).
- Check whether the figures and tables mentioned in the text actually do exist.
- Number figures and tables separately and consecutively starting from 1 with no parentheses. Do not use section or sub-section related numbering, such as Fig. 1.2 or Table 2.1.
- Place wide figures or tables on separate pages with “Landscape” orientation. Include multiple large figures and tables at the end of the paper or in Appendix. Check whether large figures or tables meet the margin requirements.

<table>
<thead>
<tr>
<th>Table 1. A sample table.</th>
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<tbody>
<tr>
<td><strong>No.</strong></td>
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<table>
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<th>Table 1. (continued)</th>
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<td>8</td>
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<td>9</td>
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</tbody>
</table>

* A sample footnote.