**Chapter number**

**Chapter title: Times New Roman, 16 Pt, bold, line spacing exactly 24 pt, align left**

**Astrid Sigel, Eva Freisinger, and Roland K. O. Sigel; List full names of all authors; Times New Roman, 14 pt, bold, italics, line spacing exactly 24 pt, align left**

authors address(es) and <authors email address(es)>: Times New Roman, 12 pt, line spacing exactly 14 pt, align left

Please list below the Table of Contents.

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**Abstract**  write here your abstract, half to one page; Times New Roman, 12 pt, line spacing exactly 24 pt, align left.

**Keywords** give at least five keywords separated by a " · ", Times New Roman, 12 pt, line spacing exactly 24 pt, align left, in alphabetical order.

equilibrium constants **·** metal ions **·** methods **·** ribozymes **·** RNA

# 1. INTRODUCTION; 1ST LEVEL HEADING; TIMES NEW ROMAN, 14 PT, BOLD, ALL LETTERS IN CAPITALS, LINE SPACING EXACTLY 24 PT, TAB AND HANGING 0.75 CM

All text of the manuscript is written in Times New Roman, 12 pt, line spacing exactly 24 pt, align left.

Starting from the second paragraph, the first line is hanging at 1 cm. This style is the same throughout the text of the whole manuscript.

References are cited in square brackets *before* punctuation marks [1] in the style used by many chemical journals such as e.g., *Angewandte* *Chemie* or *Chem. Eur J*.. The numbers are separated by a comma with a space [2, 3] or, if applicable by a long dash [2–4]. In order to ensure correct formatting of the references, please refer to the examples given below.

Figures and Tables (Table 1) are consecutively numbered according to their appearance in the text and referred to by a reference in parentheses (Figure 1). In order to facilitate the correct placement of each Figure and Table in the final print version, please indicate the position of each Figure/Table as given below. This should always be close to the first mentioning of each Figure/Table.

**insert Figure 1 / Table 1 close to here**

Tables and Figure legends are all given at the end of the manuscript.

Equations are also consecutively numbered throughout the text (Eq. 1) by giving the corresponding number at the right side in parentheses.

 *k*rel =  (1)

Further remarks: For cross referencing within your chapter, please refer to the corresponding section (Section 2). You are very welcome to also refer the interested reader to other chapters of this volume (see also Chapter 3).

# 2. SECOND 1ST LEVEL HEADING

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# 3. THIRD 1ST LEVEL HEADING

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# 4. GENERAL CONCLUSIONS

The manuscript should finish with a section containing concluding remarks as well as an outlook. Formatting is as defined above in Section 1.

**ACKNOWLEDGMENT**

Please acknowledge all grant agencies, persons, etc., you wish to thank and who have helped you in preparing this manuscript. Formatting is as defined above in Section 1. Note, that this Section is *not* numbered.

**ABBREVIATIONS AND DEFINITIONS**

Please give a comprehensive list in alphabetical order of all abbreviations used within your manuscript. Formatting is as shown below (Times New Roman, 12 pt, line spacing exactly 24 pt, align left). Note, that this Section is *not* numbered.

5'UTR 5' untranslated region

ATP adenosine 5'-triphosphate

XAS X-ray absorption spectroscopy

**REFERENCES**

Times New Roman, 12 pt, line spacing exactly 24 pt, align left, hanging 1 cm.

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**Table 1.** Concentration of alkaline metal ions in the ocean, mammalian cells, the extracellular space, as well as bacterial cells.a Times New Roman, 12 pt, line spacing exactly 24 pt, align left.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Li+ | Na+ | K+ | Rb+ | Cs+ | Mg2+ | refs. |
| Seawater [ppm] | 0.17 | 1.1 · 104 | 3.9 · 102 | 90 | 3 | 1.35 · 103 | [7] |
| Seawater [mM] |  | 470 | 10 |  |  | 50 | [8] |
| Mammalian cell [mM] |  | 10 | 140 |  |  | 30*b* | [8] |
| Extracellular space [mM] |  | 145 | 5 |  |  | 1 | [8] |
| Bacterial cells [mg/kg] |  | 4.6 · 103 | 115 · 103 |  |  | 7 · 103 | [9] |
| Bacterial cytosol [mM] |  |  | > 10 |  |  | > 10 | [10] |

a Table adapted from [11].

b The free concentration of Mg2+ is about 1 mM.

**Figure Legends**

**Figure 1.** Please list here all Figure legends consecutively. Times New Roman, 12 pt, line spacing exactly 24 pt, align left.

Please make sure to include in the figure legend the correct, requested credit line, if applicable.

The Figures themselves should be submitted as separate files (jpg, tiff, png, pdf) as well as in the original format (ChemDraw). Resolution must be at least 300 dpi for color figures, 600 dpi for line figures, and 1000 dpi for greyscale figures.

**Figure 2.**