

**MINISTRY OF SCIENCE AND HIGHER EDUCATION  
REPUBLIC OF KAZAKHSTAN  
NAO "Aktobe Regional University named after K. Zhubanov"**

**APPROVING**

Chairman of the Management Board -  
Rector of Aktobe Regional University  
named \_\_\_\_\_ after K.Zhubanov  
\_\_\_\_\_L.Karabasova  
" \_\_\_\_ " \_\_\_\_\_2025

**RULES**

**REGISTRATION OF DOCTORAL (PhD) DISSERTATIONS**

**Aktobe, 2025**

**DEVELOPED AND SUBMITTED** «\_\_» \_\_\_\_\_ 2025 г.

- Director of the Department of Science and Innovations \_\_\_\_\_ Z.Nugayeva

**APPROVED AND ENACTED**

by the Rector of K. Zhubanov Aktobe Regional University on the basis of the decision of the Academic Council (Minutes No \_\_ of «\_\_» \_\_\_\_\_ 2025.)

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## **1. SCOPE OF APPLICATION**

These instructions establish general requirements for the structure, scope and rules for the design of dissertations (hereinafter referred to as dissertations) and abstracts (hereinafter referred to as annotations) in all fields of science and technology.

## **2. REGULATORY REFERENCES**

This instruction is based on the interstate standards GOST 7.32-2001 "Research report. Structure and rules of registration" and GOST 7.1-2003 "Bibliographic record. Bibliographic description", as well as on the following regulatory legal acts of the Republic of Kazakhstan:

- The Law of the Republic of Kazakhstan "On Education" dated July 27, 2007 No. 319-III;
- Order of the Minister of Education and Science of the Republic of Kazakhstan dated March 31, 2011 No. 127 "Rules for awarding academic degrees";
- Order of the Ministry of Education and Science of the Republic of Kazakhstan dated November 20, 2024 No. 529 "On Approval of Standard Rules of Scientific Ethics";
- The State mandatory standard of higher and postgraduate education of the Republic of Kazakhstan (SSE RK);
- Order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated January 5, 2024 No. 4 "On approval of qualification requirements for educational activities of organizations providing higher and (or) postgraduate education, and a list of documents confirming compliance with them."

## **3. GENERAL PROVISIONS**

3.1 In its content, a doctoral dissertation is a scientific work of a doctoral student representing an independent research study, in which theoretical provisions have been developed that can be qualified as a new scientific achievement, or a scientific problem has been solved, or scientifically substantiated technical, economic, or technological solutions have been presented.

3.2 A doctoral dissertation determines the level of professional qualification of the doctoral student and the extent to which he or she has mastered the methodology of scientific inquiry in accordance with the State Compulsory Educational Standard (SCES RK) for the relevant educational program.

3.3 The dissertation is carried out under the supervision of domestic and foreign scientific supervisors who hold an academic degree (Candidate of Sciences, Doctor of Sciences, Doctor of Philosophy (PhD), Doctor of Profile) or an academic degree of Doctor of Philosophy (PhD), Doctor of Profile, and who are specialists in the field of the doctoral student's research:

For training areas 8D05 "Natural Sciences, Mathematics and Statistics", 8D06 "Information and Communication Technologies", 8D07 "Engineering, Manufacturing and Construction Industries", 8D08 "Agriculture and Bioresources", 8D09 "Veterinary Medicine", 8D10 "Healthcare": at least 2 (two) articles in international peer-reviewed scientific journals included in Q1, Q2, Q3 quartiles according to the JCR in Web of Science Core Collection, or having a CiteScore percentile of not less than 35, or an h-index of at least 2;

For all other training areas: at least 5 (five) scientific articles published in the last 5 years in profile journals included in the List of Scientific Publications, and 1 (one) scientific article in an international peer-reviewed journal indexed in JCR or indexed in one of the following databases: Science Citation Index Expanded, Social Science Citation Index, or Arts and Humanities Citation Index within Web of Science Core Collection, or having a CiteScore percentile of not less than 35.

3.4 Supervisors of doctoral students are reviewed by the Academic Council of the university and approved by the order of the head of the university/scientific organization within 2 months after enrollment.

3.5 The volume of the dissertation must not exceed 150 pages. The volume of dissertations in the humanities may be up to 25% larger.

Appendices are not included in the specified volume.

3.6 A doctoral dissertation serves as the basis for awarding the graduate the degree of Doctor of Philosophy (PhD) / Doctor of Profile in the corresponding educational program.

3.7 A doctoral dissertation must meet the following requirements:

- contain new scientifically substantiated theoretical and/or experimental results that make it possible to solve a theoretical or applied problem, or that represent significant progress in the development of specific scientific fields;

- correspond to the main subject area of the specialty in which the dissertation is defended;

- be relevant, contain scientific novelty and practical significance;

- be based on modern theoretical, methodological and technological achievements of science, technology and production, and contain specific practical recommendations and independent solutions to managerial tasks of a complex, cross-functional nature;

- rely on modern methods of data processing and interpretation using computer technologies;

- be carried out using modern scientific research methods and advanced information technologies;

- include research/experimental (methodological, practical) sections corresponding to the main defended provisions;

- be based on advanced international experience in the relevant field of knowledge.

3.8 The topics of doctoral dissertations are developed by the graduating department, reviewed and approved by the Academic Council of the higher education institution/scientific organization.

3.9 The dissertation topic is assigned to the doctoral student during the first semester after enrollment by the decision of the Academic Council of the university and is approved by the order of the rector.

3.10 The dissertation topic with justification and structure, the dissertation completion plan with specified deadlines, as well as the plan of scientific publications and internships (if necessary), are reflected in the individual work plan of the doctoral student.

3.11 The dissertation is carried out in accordance with the principles of independence, internal coherence, scientific novelty, reliability, practical value, and academic integrity.

The principle of independence means that the dissertation is written independently and demonstrates the personal contribution of the dissertation author to science, as well as to the development of technology and engineering. The use of artificial intelligence is permitted for statistical sampling of variable data.

When artificial intelligence technologies are used in preparing the dissertation, its scientific results, provisions, recommendations, and conclusions must be formulated independently by the author.

The principle of internal coherence means that the dissertation possesses internal unity, and all sections and provisions of the dissertation are logically interconnected; the scientific statements, obtained results, and recommendations must correspond to the goals and objectives set forth in the dissertation. New solutions (principles, methods) proposed by the author must be substantiated and evaluated in comparison with known solutions.

The principle of scientific novelty means that the scientific results, provisions, recommendations, and conclusions of the dissertation are new and that the dissertation contains:

- new scientifically substantiated theoretical and/or experimental results, the totality of which is qualified as a new scientific achievement or has significant importance for the development of specific scientific fields;

- or scientifically substantiated technical, technological, economic, or managerial solutions, the implementation of which makes a significant contribution to the development of the country's economy.

The principle of reliability means that the results of the dissertation research are obtained using appropriate scientific research methods and data processing and interpretation techniques employing computer technologies (where applicable). For dissertations in natural and technical sciences, theoretical conclusions, models, identified relationships, and patterns must be proven and confirmed by experimental research, and the conclusions drawn from the experiments must be reproducible and/or statistically reliable. For specialties in the *Education* field, results must be validated through a pedagogical experiment (where applicable).

The principle of practical value means that a dissertation of an applied nature must provide information on the practical use of the scientific results obtained by the author, confirmed by copyright certificates, patents, intellectual property certificates, implementation acts, and other official documents. In dissertations of a theoretical nature, recommendations for the application of scientific conclusions must be provided.

The principle of academic integrity means that the dissertation author respects the rights and legitimate interests of other authors and ensures the absence of the following:

- the use and/or appropriation of texts, ideas, hypotheses, conclusions, methods, research results, charts, codes, images, or works of other authors without citing the author and the source, as well as the use of another author's text with synonymous replacement of words or expressions without altering the meaning, including the use of text translated from another language (plagiarism);
- the use of artificial intelligence technologies without proper citation indicating the name, developer (rights holder), version, and the date of access and/or use;
- the use of one's own material, factual or numerical data without citing oneself and/or the source of one's own citations (self-plagiarism);
- references to non-existent sources, submission of false data and/or results, records, or reporting thereof (fabrication);
- manipulation of research materials, equipment, images, illustrations, or processes, resulting in distortion of research materials in the dissertation (falsification).

The coincidence of the titles of normative legal acts and official documents, the names of state and other official bodies and organizations, and the terms, definitions, and concepts commonly used in the corresponding field of science, as well as the texts of normative legal acts and texts of the works under study, shall not be considered plagiarism if the scope and nature of their use do not call into question the independence of the dissertation.

The use of technical tools and techniques, including artificial intelligence technologies, for the purpose of reducing or eliminating the possibility of detecting plagiarism is not allowed.

When conducting empirical research methods, the use of artificial intelligence in relation to children under 13 years of age is not permitted.

3.12 The use of artificial intelligence technologies by the author in the preparation of the dissertation is permitted only with prior approval from the domestic and foreign scientific supervisors, as well as from the members of the university's ethics committee where the dissertation was carried out.

The dissertation author, scientific supervisors, and members of the university's ethics committee must take into account the actual capabilities and potential consequences of using artificial intelligence in the preparation of the dissertation.

The dissertation author shall comply with the ethical rules and standards of the university when using artificial intelligence technologies in the dissertation work.

The author shall disclose the use of artificial intelligence technologies by providing a reference to them, including a description of the stages of the research at which and the manner in which the technology was used, as well as a description of the methods and approaches applied to verify the reliability of the data obtained in this way and/or their processing and interpretation. The absence of such information in the dissertation confirms that the author did not use artificial intelligence technologies in the dissertation.

The dissertation author shall take necessary measures to prevent the disclosure of restricted personal data without the consent of the data subject or his/her legal representative, and the

disclosure of confidential or other legally protected information without the consent of the rights holder, as well as to prevent violations of other rights and legitimate interests of third parties.

The authors of the dissertation shall adhere to accurate, safe, and ethical use of information obtained through artificial intelligence technologies.

3.13 The dissertation is submitted in one of the following forms:

- 1) a dissertation work;
- 2) a series consisting of at least two articles and one review, or three articles, published in journals included in the first and/or second quartile by impact factor according to the Journal Citation Reports of Clarivate Analytics, in one of the scientific fields corresponding to the content of the dissertation. In one of the articles, the doctoral student must be the first author or the corresponding author.

When the requirements of this paragraph are fulfilled, the requirements of paragraph 3.14 shall not apply to the doctoral student.

3.14 The main scientific results of the dissertation submitted for the degree of Doctor of Philosophy (PhD) or Doctor by profile shall be published prior to the dissertation defense in scientific journals included in the List of scientific publications recommended for the publication of key research findings (hereinafter – the List of publications) and/or in an international peer-reviewed scientific journal.

An international peer-reviewed scientific journal shall have an impact factor according to the Journal Citation Reports (JCR) and/or be indexed in the Web of Science Core Collection (sections Arts and Humanities Citation Index, Science Citation Index Expanded, Social Sciences Citation Index) of Clarivate Analytics, or have a specified percentile according to CiteScore in the Scopus database in one of the scientific fields relevant to the content of the dissertation.

Publication requirements for admission to the defense:

1) at least one article or review in an international peer-reviewed scientific journal that has an impact factor according to the JCR and/or is indexed in the Web of Science Core Collection (sections Arts and Humanities Citation Index, Science Citation Index Expanded, Social Sciences Citation Index), or has a CiteScore percentile of at least 25 in the Scopus database, as well as article(s) in journals included in the List of publications (in a quantity depending on the category of the publication);

2) or at least two (2) articles, or one (1) article and one (1) review, published in international peer-reviewed scientific journals indexed in the Web of Science Core Collection (in the Arts and Humanities Citation Index section) and/or included in the first three quartiles by impact factor according to JCR, or having a CiteScore percentile of at least 35 in the Scopus database;

3) or the presence of a chapter in a monograph (the doctoral student must have authored at least one printed sheet), published by Elsevier, Brill, CRC Press, DeGruyter, Edward Elgar Publishing, John Wiley & Sons, McGraw Hill, Palgrave Macmillan, Peter Lang, Prentice Hall, Routledge, Sage Publications, Springer Nature, Taylor and Francis, Wolters Kluwer, or by a university press ranked in the top 100 of the US News Best Global Universities Rankings, Academic Ranking of World Universities (ARWU), or Times Higher Education World University Rankings (hereinafter – a “trusted publisher”).

4) or at least one (1) article published in an international peer-reviewed scientific journal that has an impact factor in the first two quartiles according to JCR, or a CiteScore percentile of at least 35 in the Scopus database, and one (1) conference paper published in the proceedings of an international scientific conference that has an impact factor according to JCR and is indexed in the Web of Science Core Collection.

At the same time, for doctoral students studying in the educational programs (specialties) of the educational program groups “8D017 – Training of Teachers of the Kazakh Language and Literature,” “D016 – Training of History Teachers,” “8D060 – Philology,” “D050 – Philosophy and Ethics,” and “D053 – History” within the field of study 8D01 – Pedagogical Sciences and the field of study 8D02 – Arts and Humanities, and who have prepared a dissertation in Kazakh language and literature, Kazakh philology, the history of Kazakhstan, or Kazakh philosophy, the following is permitted:

1) at least one (1) article or review in an international peer-reviewed scientific journal indexed in the Web of Science Core Collection in the Arts and Humanities Citation Index section, or in a journal with a CiteScore percentile of at least 25 in the Scopus database, as well as article(s) published in journals included in the List of approved publications (in a quantity depending on the category of the publication).

2) or articles published in journals from List 1 and List 2 of the Register of Publications, one of which must be in the English language, and two (2) presentations with an oral report at international scientific conferences.

Publications in international peer-reviewed scientific journals and conference proceedings must correspond to the content of the dissertation and to the thematic focus of the journal or conference as stated in the respective databases. They must be published on the official website of the journal and must have the publication type Article, Review, Article in Press, Conference Paper, or Proceedings. Publications in international peer-reviewed scientific journals with an interdisciplinary scope (Multidisciplinary, Interdisciplinary, General, Miscellaneous) are permitted.

If there is one scientific article published in a journal belonging to the first quartile by impact factor according to JCR, no additional publications are required.

The quartile of a journal in the Web of Science Core Collection and/or the CiteScore percentile in Scopus is taken into account for the year of publication, or the year preceding the year of publication, or as of the date of the dissertation defense.

In cases where the dissertation contains state secrets or information for official use only, the main results of the dissertation must be published in at least seven (7) publications on the dissertation topic, including no fewer than four (4) articles in scientific publications included in the List of approved publications.

For individuals who have defended their dissertations abroad, scientific works (including one (1) article in an international peer-reviewed scientific journal) published on the topic of the dissertation or in a corresponding scientific field before submitting the attestation file to the Committee are taken into account. Articles published in foreign periodical scientific journals are considered as articles in journals from the List of approved publications.

If there are scientific articles in international peer-reviewed journals, one (1) article in such a journal is counted as two (2) articles in publications recommended by the authorized body.

Articles from the List of approved publications must comply with the Requirements for Scientific Publications for Inclusion in the List of Publications Recommended for Publishing Research Results, approved by the Order of the Minister of Education and Science of the Republic of Kazakhstan dated January 12, 2016, No. 20 “On Approval of the Requirements for Scientific Publications for Inclusion in the List of Publications Recommended for Publishing Research Results” (registered in the Register of State Registration of Regulatory Legal Acts under No. 13409).

The number of articles in journals from the List of approved publications is counted depending on publication in journals from List 1, 2, or 3.

Inclusion in List 1 requires at least one (1) article, inclusion in List 2 requires at least two (2) articles, inclusion in List 3 requires at least three (3) articles.

#### **4. THE STRUCTURE OF THE DISSERTATION**

The structural elements of the dissertation are:

- title page;
- table of contents;
- regulatory references;
- definitions;
- notations and abbreviations;
- introduction;
- main body;
- conclusion;

- list of references;
- appendices.

## **5. REQUIREMENTS FOR THE STRUCTURAL ELEMENTS OF THE DISSERTATION**

### **5.1 The title page**

5.1.1 The title page is the first page of the dissertation and serves as a source of information necessary for processing and searching the document.

5.1.2 The following information is provided on the title page:

- name of the organization where the dissertation was carried out;
- universal decimal classification (udc) index;
- restrictive notice (if applicable);
- full name of the doctoral candidate;
- title of the work;
- code and name of the educational program (according to the classifier of higher and postgraduate education programs of the Republic of Kazakhstan);
- degree sought;
- surname and initials of scientific advisors;
- place and date (year).

The title page is included in the overall page numbering of the dissertation. The page number is not indicated on the title page.

The title page is prepared in accordance with Appendix A.

The title page must include the personal signature of the doctoral candidate, executed in black ink.

### **5.2 The content of the dissertation**

5.2.1 The table of contents of the dissertation includes the Introduction, sequential numbers and titles of all sections, subsections, and items (if they have titles), the Conclusion, the List of References, and the titles of the Appendices with the page numbers on which these elements of the dissertation begin. Appendix B.

### **5.3 Regulatory references**

5.3.1 The structural element "Normative references" contains a list of standards referenced in the text of the dissertation.

5.3.2 The list of reference standards begins with the words: "This dissertation uses references to the following standards."

5.3.3 The list includes the designations of the standards and their names in ascending order of the registration numbers of the designations.

### **5.4 Definitions**

5.4.1 The structural element "Definitions" contains definitions necessary to clarify or establish the terms used in the dissertation.

5.4.2 The list of definitions begins with the words: "The following terms and definitions are used in this dissertation."

### **5.5 Designations and abbreviations**

5.5.1 The structural element "Designations and abbreviations" contains a list of designations and abbreviations used in the dissertation.

5.5.2 The notation and abbreviations are recorded in the order in which they appear in the text of the dissertation or in alphabetical order with the necessary transcription and explanations.

5.5.3 Definitions, designations and abbreviations may be given in one structural element "Definitions, designations and abbreviations".



## 5.6 Introduction

The Introduction should include an assessment of the current state of the scientific or scientific-technical problem (task) being addressed, the basis and initial data for the development of the topic, a justification of the necessity of conducting the research, information on the planned scientific and technical level of the development, results of patent research and conclusions drawn from them, as well as information on the metrological support of the dissertation. The Introduction must demonstrate the relevance and novelty of the topic, the connection of the work with other research, and should present the aim, object, and subject of the study, the research tasks and their role in the overall implementation of the research work (R&D). It should also reflect the methodological framework and the key statements proposed for defense.

## 5.7 The main part

5.7.1 The main part of the dissertation contains data reflecting the essence, methodology and main results of the work performed.

5.5.2 The main part should contain:

- selection of the research direction, including justification of the chosen direction, methods for solving the tasks and their comparative evaluation, and a description of the general methodology applied in conducting the research;
- formulation of the aim, object, and subject of the study, and the research tasks;
- the process of theoretical and/or experimental research, including determination of the nature and scope of theoretical studies, research methods, calculation methods, justification for conducting experimental work, principles of operation of the developed objects, and their characteristics;
- summary and evaluation of research results, including assessment of the completeness of solving the stated tasks, suggestions for further research directions, evaluation of the reliability of the obtained results, and comparison with similar results from domestic and foreign studies.

Each section of the dissertation must conclude with key findings and serve as the foundation for the next section.

The presentation in the main body of the dissertation must be strictly justified, coherent, and logical. Spelling, grammatical, and punctuation errors are not allowed. The writing style of the dissertation must be scientifically accurate and appropriate. Emotional judgments, literary expressions, colloquial phrases, slang, or similar informal expressions are not permitted.

## 5.8 Conclusion

The conclusion should contain:

- brief conclusions based on the results of dissertation research;
- assessment of the completeness of solutions to the tasks set;
- recommendations and initial data on the specific use of the results;
- assessment of the technical and economic efficiency of the implementation;
- assessment of the scientific level of the work performed in comparison with the best achievements in this field.

## 5.9 List of sources used

The list should contain information about the sources used in writing the dissertation. The list is drawn up in accordance with Appendix V.

It is allowed to make a list of cited literature in English according to international citation styles (Harvard style, APA (American Psychological Association) Style, MLA (Modern Language Association) Style, Chicago Style, ACS (American Chemical Society) Style, etc., depending on the field of study) (Appendix G).

## 5.10 Applications

5.10.1 It is recommended to include materials related to the completed dissertation in the appendices, which for some reason cannot be included in the main part..

Applications can include:

- intermediate mathematical proofs, formulas and calculations;
- tables of auxiliary digital data;
- test reports;
- description of the equipment and devices used in conducting experiments, measurements and tests;
- rules and techniques, descriptions of algorithms and programs of tasks solved by computers, developed in the course of dissertation work;
- illustrations (photographs) of an auxiliary nature;
- the protocol of consideration of the thesis (or part of it) at the scientific and technical council;
- acts of implementation of the results of dissertation work, etc.

## **6. DISSERTATION DESIGN RULES**

### **6.1 General requirements**

6.1.1 The presentation of the text and the design of the dissertation are carried out in accordance with the requirements of these Rules. The pages of the dissertation text and the illustrations and tables included in the dissertation must correspond to A4 format.

6.1.2 The dissertation must be completed using a computer and a printer on one side of a sheet of A4 white paper in one interval. The font color should be black, the font is Times New Roman, regular, size 14.

The text of the dissertation should be printed with the following margin sizes: right - 10 mm, top - 20 mm, left - 30 mm and bottom - 20mm.

It is allowed to use computer capabilities to focus on certain terms, formulas, and theorems using fonts of different typefaces.

6.1.3 The quality of the printed text and the design of illustrations, tables, printouts from a PC must meet the requirement of their clear reproduction.

6.1.4 When completing the dissertation, it is necessary to observe uniform density, contrast and clarity of the image throughout the dissertation. The dissertation should have clear, non-blurred lines, letters, numbers and signs.

6.1.5 Surnames, organization names, product names and other proper names in the dissertation are given in the original language.

It is allowed to transliterate proper names and give the names of organizations in the translation into the language of the dissertation with the addition (at the first mention) of the original name.

### **6.2 Dissertation construction**

6.2.1 The names of the structural elements of the dissertation "CONTENT", "NORMATIVE REFERENCES", "DEFINITIONS", "DESIGNATIONS AND ABBREVIATIONS", "INTRODUCTION", "CONCLUSION", "LIST OF SOURCES USED" serve as headings of the structural elements of the dissertation, are written in capital letters, bold, in the center of the line.

6.2.2 The main part of the dissertation should be divided into sections, subsections and paragraphs. Paragraphs, if necessary, can be divided into sub-paragraphs. When dividing the text of the dissertation into paragraphs and sub-paragraphs, it is necessary that each paragraph contains complete information.

6.2.3 Sections and subsections should have headings. Paragraphs, as a rule, do not have headings. Headings should clearly and concisely reflect the content of sections and subsections.

6.2.4 Headings of sections, subsections and paragraphs should be indented with a capital letter without a dot at the end, without underlining.

If the title consists of two sentences, they are separated by a dot.

### **6.3 Page numbering of the dissertation**

6.3.1 The pages of the dissertation should be numbered in Arabic numerals, observing the end-to-end numbering throughout the text of the dissertation. The page number is placed in the

center of the lower part of the sheet without a dot.

6.3.2 The title page is included in the general page numbering. The page number is not indicated on the title page.

6.3.3 Illustrations and tables located on separate sheets are included in the general page numbering of the dissertation.

Illustrations and tables on an A3 sheet are counted as one page.

6.4 Numbering of sections, subsections, paragraphs, and sub-paragraphs

6.4.1 Dissertation sections should have ordinal numbers within the entire work, indicated by Arabic numerals without dots and written with paragraph indentation. Subsections should be numbered within each section. The subsection number consists of the section and subsection numbers separated by a dot. Do not put a dot at the end of the subsection number. Sections, like subsections, can consist of one or more paragraphs.

6.4.2 If the dissertation has no subsections, then the numbering of the paragraphs in it should be within each section, the paragraph number should consist of the section and paragraph numbers separated by a dot. Do not put a dot at the end of the item number.

Example

**1 Types and basic sizes**

1.1

1.2 } **Numbering of paragraphs of the first section of the dissertation**

1.3 }

**2 Technical requirements**

2.1

2.2 } **Numbering of paragraphs of the second section of the thesis**

2.3 }

If the dissertation has subsections, then the numbering of the paragraphs should be within the subsection and the paragraph number should consist of the section, subsection and paragraph numbers separated by dots, for example:

**3 Test methods**

**3.1 Apparatuses, materials and reagents**

3.1.1

3.1.2 } **Numbering of paragraphs of the first subsection of the third section of the**  
3.1.3 } **dissertation**

**3.2 Preparing for the test**

3.2.1

3.2.2 } **Numbering of paragraphs of the second subsection of the third section of the**  
3.2.3 } **dissertation**

6.4.3 If a section consists of one subsection, the subsection is not numbered. If a subsection consists of one item, then the item is not numbered.

6.4.4 If the text is divided only into paragraphs, then they are numbered by ordinal numbers within the entire thesis.

6.4.5 Paragraphs, if necessary, may be divided into sub-paragraphs, which should be numbered within each paragraph, for example: 4.2.1.1, 4.2.1.2, etc.

6.4.6 Enumerations may be given within paragraphs or sub-paragraphs. Each enumeration should be preceded by a hyphen or, if necessary, a reference in the text of the document to one of the enumerations, a lowercase letter (with the exception of e, z, y, o, h, b, s, b), followed by a parenthesis. To further detail the enumerations, it is necessary to use Arabic numerals, after which a parenthesis is placed, and the entry is made with paragraph indentation, as shown in the example.

Example

- a) \_\_\_\_\_  
b) \_\_\_\_\_

1) \_\_\_\_\_

2) \_\_\_\_\_

c) \_\_\_\_\_

6.4.7 If the thesis consists of two or more parts, each part must have its own sequence number. The number of each part should be written in Arabic numerals on the title page indicating the type of dissertation work, for example, "Part 2".

6.4.8 Each structural element of the dissertation should begin with a new sheet (page).

6.4.9 The page numbering of the dissertation and the appendices included in the dissertation should be end-to-end.

## 6.5 Illustrations

6.5.1 Illustrations (drawings, maps, graphs, diagrams, computer printouts, diagrams, photographs) should be placed in the text of the dissertation immediately after the text in which they are mentioned for the first time, or on the next page.

The illustrations can be computer-generated, including color ones.

All illustrations should be referenced in the dissertation.

6.5.2 Drawings, graphs, diagrams, diagrams, and illustrations included in the dissertation must comply with the requirements of the state standards of the Unified System of Design Documentation (ESCD).

Drawings, graphs, diagrams, and diagrams may be executed using computer printing.

6.5.3 The illustrations, with the exception of the illustrations of the appendices, should be numbered in Arabic numerals through numbering. The word "Drawing" and its name are placed in the middle of the line.

6.5.4 Illustrations, if necessary, may have a name and explanatory data (caption text). The word "Drawing" and its name are placed after the explanatory data and arranged as follows: Figure 1 - Device details.

6.5.5 If the drawing is located on more than one page, then the number and name of the drawing are placed on the first sheet (page) with the designation of its sheet, on subsequent pages only the number of the drawing and sheet are indicated. (Example: Figure 1 - Device details, Sheet 1; Figure 1, Sheet 2)

6.5.6 It is allowed to number the illustrations within the section. In this case, the illustration number consists of the section number and the serial number of the illustration, separated by a dot. For example, Figure 1.1.

6.5.7 The illustrations of each application are numbered separately in Arabic numerals with the application designation added before the digit. For example, Figure A3.

The illustrations are designed in accordance with Appendix D.

6.5.8 When referring to illustrations, it should be written "... in accordance with Figure 2" for end-to-end numbering and "... in accordance with Figure 1.2" for numbering within the section.

## 6.6 Tables

6.6.1 Tables are used for better clarity and convenience of comparing indicators. The name of the table should reflect its content, be precise, and concise. The table name should be placed above the table on the left, without paragraph indentation, in one line with its number separated by a dash.

6.6.2 The table should be placed in the dissertation immediately after the text in which it is mentioned for the first time, or on the next page.

6.6.3 All tables should be referenced in the thesis. When linking, you should write the word "table" with its number.

6.6.4 A table with a large number of rows may be moved to another sheet (page). When transferring a part of a table to another sheet (page), the word "Table", its number and name are indicated once to the left above the first part of the table, and the words "Continuation of the table" are also written above the other parts to the left and the table number is indicated, for example: "Continuation of table 1". When transferring a table to another sheet (page), the header will be moved only over its first part.

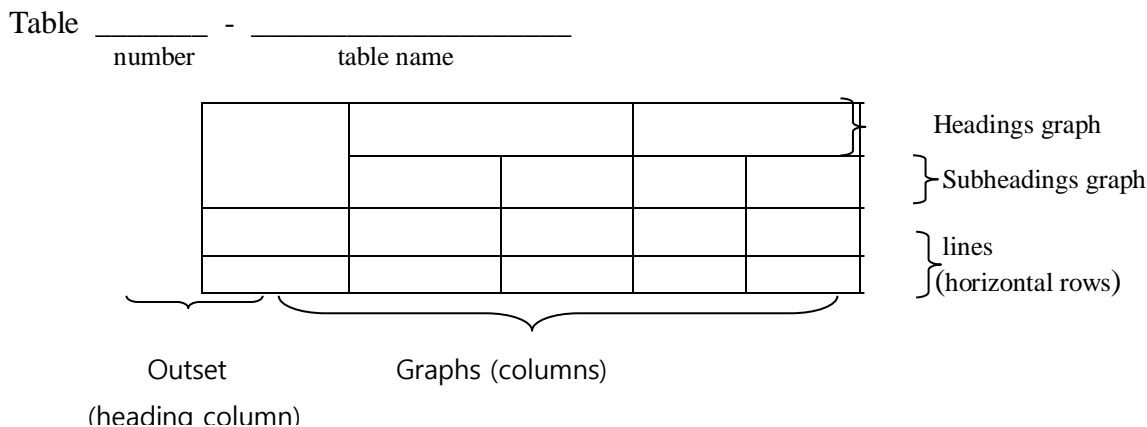
A table with a large number of graphs can be divided into parts and placed one part under another within the same page. If the rows and columns of the table exceed the page format, then in

the first case, the head is repeated in each part of the table, in the second case, the sidewall.

If the text repeated in different rows of the table column consists of one word, then it can be replaced with quotation marks after the first spelling; if it consists of two or more words, then at the first repetition it is replaced with the words "The same", and then with quotation marks. It is not allowed to put quotation marks instead of repeating numbers, stamps, signs, mathematical and chemical symbols. If digital or other data is not provided in any row of the table, then a dash is placed in it.

Column "No." is listed in order, if necessary, in other cases it is missing.

6.6.5 Digital material is usually presented in the form of tables. An example of the design of the table is shown in Figure 1.



6.6.6 Tables, with the exception of annex tables, should be numbered in Arabic numerals through numbering.

It is allowed to number tables within a section. In this case, the table number consists of the section number and the sequence number of the table, separated by a dot.

The tables of each annex are numbered separately in Arabic numerals with the appendix designation added before the digit, for example, "Table B.1" if it is given in Annex E.

6.6.7 Headings of graphs and table rows should be written with a capital letter in the singular, and subheadings of graphs should be written with a lowercase letter if they form the same sentence as the title, or with a capital letter if they have an independent meaning. No dots are placed at the end of the headings and subheadings of the tables.

6.6.8 The tables on the left, right and bottom are bounded by lines. It is allowed to use a font size in the table that is smaller than in the text.

It is not allowed to separate the headings and subheadings of the sidewall and the graph with diagonal lines.

It is allowed not to draw horizontal and vertical lines delimiting the rows of the table, if their absence does not make it difficult to use the table.

Graph headers are written in parallel to the rows of the table. If necessary, the perpendicular arrangement of the graph headers is allowed.

The head of the table should be separated by a line from the rest of the table.

An example of the design of tables in the dissertation is given in appendix E.

## 6.7 Notes

6.7.1 The word "Note" should be capitalized from the paragraph and not underlined.

6.7.2 Notes are provided in the dissertation if explanations or reference data are needed to the content of the text, tables or graphic material.

Notes should not contain requirements.

6.7.3 Notes should be placed immediately after the text, graphic material or in the table to which these notes relate. If there is only one note, then a dash is placed after the word "Note" and the note is capitalized. One note is not numbered. Several notes are numbered in Arabic numerals without a dot. A note to the table is placed at the end of the table above the line indicating the end of the table.

Example

Note - Do not print footnotes.

Several notes are numbered in Arabic numerals.

Example

Notes

1 Footnotes are not printed;

2 The documents are notarized;

3 Approves the head of the organization

6.7.4 If additional explanations are needed in the dissertation, the note may be made in the form of a footnote. The footnote sign is placed immediately after the word, number, symbol, or sentence to which the explanation is given. The footnote sign is superscribed with Arabic numerals with a parenthesis. It is allowed to make footnotes with asterisks "\*" instead of numbers.

The footnote is placed at the end of the page with a paragraph indentation, separating it from the text by a short horizontal line on the left. A footnote to the table is placed at the end of the table above the line indicating the end of the table.

6.8 Formulas and equations

6.8.1 Formulas and equations should be separated from the text in a separate line. There should be at least one free line above and below each formula or equation. If the equation does not fit in one line, then it must be moved after the equal sign (=) or after the plus signs (+), minus (-), multiplication (x), division (:), or other mathematical signs, and the sign at the beginning of the next line is repeated. When transferring a formula, an "x" sign is used on the sign symbolizing the multiplication operation.

6.8.2 The explanation of the values of symbols and numerical coefficients should be given directly below the formula in the same sequence as they are given in the formula.

6.8.3 Formulas in the dissertation work should be numbered in ordinal numbering within the entire dissertation with Arabic numerals in parentheses in the rightmost position on the line.

Example

$$\begin{array}{ll} A=a:b, & (1) \\ B=c:e. & (2) \end{array}$$

One formula is denoted by - (1)

6.8.4 Formulas placed in appendices should be numbered separately in Arabic numerals within each appendix, with the appendix designation added before each digit, for example, formula (B.1).

6.8.5 References in the text to the ordinal numbers of formulas are given in parentheses. Example - ... in formula (1).

6.8.6 Numbering of formulas within the section is allowed. In this case, the formula number consists of the section number and the ordinal number of the formula, separated by a dot, for example (3.1).

6.8.7 The order of presentation of mathematical equations in the dissertation is the same as the formulas.

6.9 Links

6.9.1 References to these Rules, standards, specifications and other documents are allowed in the dissertation, provided that they fully and unambiguously define the relevant requirements and do not cause difficulties in using the document.

6.9.2 Reference should be made to the document as a whole or its sections and appendices, as well as tables and illustrations. References to subsections and paragraphs are not allowed, except for subsections, paragraphs, tables and illustrations of these Rules.

6.9.3 When referring to standards and technical specifications, only their designation is indicated, while it is allowed not to indicate the year of their approval, provided that the standard is fully described in the list of sources used.

6.9.4 References to the sources used should be given in square brackets. The references are

numbered in Arabic numerals in the order of references in the text of the dissertation, regardless of the division of the dissertation into sections.

6.9.5 In case of repeated reference to the same source, the corresponding page from the source is placed in square brackets in addition to the serial number of the source.

6.9.6 A link to your own publications is required.

6.9.10 Links to Internet sources are provided with the source address.

#### 6.10 Definitions, designations, and abbreviations

The list of definitions, designations, and abbreviations should be arranged in a column. Abbreviations, symbols, units of physical quantities, and terms are given on the left in the order of mention or in alphabetical order, and their full transcription is given on the right.

#### 6.11 List of sources used

Information about sources should be arranged in the order in which references to sources appear in the text of the dissertation and numbered in Arabic numerals without dots and indented.

#### 6.12 Appendices

6.12.1 Appendices are designed as a continuation of the dissertation on its subsequent pages.

6.12.2 All appendices should be referenced in the text of the dissertation. The appendices are arranged in the order of references to them in the text of the dissertation.

6.12.3 Each application should start from a new page with the word "Application" and its designation at the top in the middle of the page.

The application must have a title that is written symmetrically relative to the capitalized text in a separate line.

6.12.4 Applications are designated with capital letters of the Russian alphabet, starting with A, with the exception of the letters E, Z, Th, O, H, B, S, B. After the word "Application" follows a letter indicating its sequence.

It is allowed to designate applications with letters of the Latin alphabet, with the exception of the letters I, O.

If the letters of the Russian and Latin alphabets are fully used, it is allowed to designate applications with Arabic numerals.

If there is one appendix in the document, it is designated as "Appendix A".

6.12.5 The text of each appendix, if necessary, can be divided into sections, subsections, paragraphs, and sub-paragraphs, which are numbered within each appendix. The number is preceded by the designation of this application.

6.12.6 Appendices should have end-to-end page numbering in common with the rest of the thesis.

#### **AGREED:**

**Vice-Rector for Academic Affairs**

**L.Myasnikova**

**Vice Rector for Science and Innovation**

**R.Beknazarov**

The title page of the thesis

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the name of the organization where the dissertation was completed

UDC

On the rights of the manuscript

**LAST NAME, FIRST NAME, PATRONYMIC**

**Title of the dissertation**

The cipher and the name of the educational program  
(it is given according to the Classifier of educational programs of higher and  
postgraduate education of the Republic of Kazakhstan)

Dissertation for the degree  
of Doctor of Philosophy (PhD), doctor in profile

Scientific consultant

Full name, academic degree,  
academic title

Republic of Kazakhstan  
City, year



**The content of the dissertation**

**CONTENT**

**REGULATORY REFERENCES**

**DESIGNATIONS AND ABBREVIATIONS**

**INTRODUCTION**

1

1.1

1.2

2

2.1

2.1.1

2.1.2

2.1.3

3

3.1

3.1.1

3.1.2

3.1.3

**CONCLUSION**

**LIST OF SOURCES USED**

**APPENDIX A**

**APPENDIX B**

*\* Make the table invisible after the pages are set*

## Sample design of the list of used sources

## LIST OF SOURCES USED

1. Tulegenova G.S. Biology of transplanted tumors. Almaty: Nauka Publ., 2003. 216 p.
2. Agafonova N.N. Civil law: a textbook for universities / ed. by A.G. Kalpin. – 2nd ed., repr. and add. – M.: Lawyer, 2003. – 542 p.
3. Gembitsky E.V. Neurocirculatory hypotension and hypotonic (hypotensive) conditions: a guide to cardiology: in 5 volumes/edited by E.I.Chazov. – M.:Publishing House of Medicine, 1982.-Vol.4. – pp. 101-117.
4. Porter M.E. International competition / translated from English; edited by V.D. Shchepin. Moscow: International Relations, 1993. 140 p.
5. Pavlov B.P. Batuev S.P. Preparation of water-oil emulsions for combustion in furnace devices // In: Improving the efficiency of using gaseous and liquid fuels in furnaces and heating boilers. – L.: Nedra, 1983. – 216 p.
6. Efimov Jr., Askarova G.S. Diurnal biological rhythms of abnormal growth //Usp. sovr, biology. - 2003. - Vol. 103, No. 2. - pp. 255-270.
7. Pat. 5773 RK. A method for extracting gold from synthetic ionites / G.A. Impure; publ. 30.03.98, Bul. No. 6.- 4 p
8. A.S. 386018. USSR. Method of metal extraction /A.G. Akataev, B.I. Petrov; publ. 05/17/81, Bul. No. 15. - 2 p
9. Georgieva R.S. Changes in the blood coagulation system in patients with malignant tumors //Questions of the expert and the wedge. Oncol.: collection of scientific papers of the Institute of Oncology and Radiology.- Almaty, 2004. - pp.214-217.
10. Bazhenov L.G., Kulinskaya L.L., Sorochinskaya I.N. Seasonal changes in the content of immunoglobulins in the blood of clinically healthy individuals //Abstracts of the III All-Russian Conference on Chronobiology. and the chronologist. Tashkent, 1990. 320 p.
11. Parzhanov Zh.A., Mominov Kh., Zhigitekov T.A. Commercial properties of karakul with different canning methods // Scientific and technological progress in desert animal husbandry and arid forage production: mater. international Scientific and practical conference dedicated to the 1500th anniversary of Turkestan. Shymkent, 2000. pp.115-1120.
12. Abuseitova M.H. History of Central Asia: concepts, methodology and new approaches. International Scientific Conference "Towards new standards in the development of social sciences in Central Asia". Almaty: Dyke Press, 2006. pp. 10-17
13. Razumovsky V.A. Marketing research management in the region / Institute of Economics. – Almaty, 2000. – 116 p. – Dept. in KazgosINTI on 13.06.2000. – № Ka00144.
14. Study of kinetics and chemistry of processes: research report (final) /IMiO. Academy of Sciences of the Kazakh SSR: hands. Ivanov S.A.; executive. Petrov N.I. – Almaty, 1985.-240 p. - No. GR ...- Inv. no. 81047478.
15. Izbairov A.K. Non-traditional Islamic trends in the independent states of Central Asia: dis. ... Doctor of Historical Sciences: 07.00.03.- Almaty: I.V. named after R.B. Suleimenov, 2009. – 270 p. – Inv. № 0509RK00125.
16. Omarova G.P. Experimental therapy of T-1 sarcoma depending on its mitotic activity: abstract. ... kand. biol. sciences:03/04/04. Moscow: Moscow State University, 2004. -16 p.- Inv. № 54937531
17. Vachaspati T., Videnkin A. Evolution of cosmic nets //Phys.Rev.-2003.- Vol.46, No.2. -P.1133-1140.
18. Paustovsky KG. The Golden Rose //Soch.: in 7 volumes, Moscow, 1984, vol. 3, pp.287-228.
19. Decree of the President of the Republic of Kazakhstan. On some issues of the development of the agro-industrial complex: approved on December 11, 2006, No. 220.
20. Strategic Development Plan of the Republic of Kazakhstan until 2010: approved by By Decree of the President of the Republic of Kazakhstan dated December 4, 2001, No. 735 // www.minplan.kz . 12/28/2001.
21. Baytova A. Innovative and technological development is a key factor in increasing competitiveness // Kazakhstanskaya pravda. – 2009. – No. 269.
22. Kuzmin N. Universal soldier. "Expert Online" <http://www.nomad.su> 13.10.2009.

### Examples of the design of a list of cited literature in English according to international citation styles

#### • Harvard

Book, (monograph):

Reiss, M. J. and White, J. (2013). *An aims-based curriculum: the significance of human flourishing for schools*. London: IOE Press.

An electronic book:

Adams, D. (1979) *The hitchhiker's guide to the galaxy*. Available at: <http://www.amazon.co.uk/kindle-ebooks> (Accessed: 23 June 2021).

The article in the magazine:

Erbil, D.G. (2020) 'A review of flipped classroom and cooperative learning method within the context of Vygotsky theory', *Frontiers in Psychology*, 11, article 1157. Available at: <https://www.frontiersin.org/article/10.3389/fpsyg.2020.01157> (Accessed: 6 May 2024).

Chapter in the monograph:

Franklin, A.W. (2012) 'Management of the problem', in S.M. Smith (ed.) *The maltreatment of children*. MTP, pp. 83–95.

Dissertation:

Smith, E. R. C. (2019). *Conduits of invasive species into the UK: the angling route?* Ph. D. Thesis. University College London. Available at: <https://discovery.ucl.ac.uk/id/eprint/10072700> (Accessed: May 20, 2021).

Conference proceedings:

Jones, D. (1999). 'Developing big business', Large firms policy and research conference. University of Birmingham, 18-19 December. Leeds: Institute for Large Businesses.

Electronic resource:

Du   C., Lupack S. and Lamberton R. (2020) 'Homer in a world of song', in C.O. Pache (ed.) *The Cambridge guide to Homer: part I - Homeric song and text*. Cambridge University Press. Available at: <https://www-cambridge-org.libezproxy.open.ac.uk/core/books/cambridge-gu> ... (Accessed: 27 August 2025).

For more information, see the website: <https://library-guides.ucl.ac.uk/harvard/web-page>

#### • APA (7th ed.)

Book (monograph):

Sapolsky, R. M. (2017). *Behave: The biology of humans at our best and worst*. Penguin Books.

The article in the magazine:

Grady, J. S., Her, M., Moreno, G., Perez, C., & Yelinek, J. (2019). Emotions in storybooks: A comparison of storybooks that represent ethnic and racial groups in the United States. *Psychology of Popular Media Culture*, 8(3), 207–217. <https://doi.org/10.1037/ppm0000185>

Chapter in the monograph:

Aron, L., Botella, M., & Lubart, T. (2019). Culinary arts: Talent and their development. In R. F. Subotnik, P. Olszewski-Kubilius, & F. C. Worrell (Eds.), *The psychology of high performance: Developing human potential into domain-specific talent* (pp. 345–359). American Psychological Association. <https://doi.org/10.1037/0000120-016>

Conference materials:

Duckworth, A. L., Quirk, A., Gallop, R., Hoyle, R. H., Kelly, D. R., & Matthews, M. D. (2019). Cognitive and noncognitive predictors of success. *Proceedings of the National Academy of Sciences, USA*, 116(47), 23499–23504. <https://doi.org/10.1073/pnas.1910510116>

Published dissertation:

Zambrano-Vazquez, L. (2016). *The interaction of state and trait worry on response monitoring in those with worry and obsessive-compulsive symptoms* [Doctoral dissertation, University of Arizona]. UA Campus Repository. <https://repository.arizona.edu/handle/10150/620615>

Unpublished dissertation:

Harris, L. (2014). *Instructional leadership perceptions and practices of elementary school leaders* [Unpublished doctoral dissertation]. University of Virginia.

Electronic resource:

Mantel, B. (2025, April 24). How to be a caregiver for someone with multiple sclerosis. AARP. <https://www.aarp.org/caregiving/health/info-2025/multiple-sclerosis-care-plan/>

For more information, see the official website: <https://apastyle.apa.org/style-grammar-guidelines/references/examples>

- **MLA (9th ed.)**

Book:

Mantel, Hilary. Wolf Hall. Picador, 2010.

An electronic book:

Deresiewicz, William. "The Death of the Artist—and the Birth of the Creative Entrepreneur." *The Atlantic*, 28 Dec. 2014, [theatlantic.com/magazine/archive/2015/01/the-death-of-the-artist-and-the-birth-of-the-creative-entrepreneur/383497/](http://theatlantic.com/magazine/archive/2015/01/the-death-of-the-artist-and-the-birth-of-the-creative-entrepreneur/383497/).

Magazine article:

Litz, Sarah. "All the Fires: What You Need to Know on Size, Containment." *Reno Gazette-Journal*, 12 July 2017, [www.rgj.com/story/news/2017/07/12/farad-fire-updates-size-containment-hills-burn-west-verdi/471293001/](http://www.rgj.com/story/news/2017/07/12/farad-fire-updates-size-containment-hills-burn-west-verdi/471293001/).

Chapter in the book:

Belcourt, Billy-Ray. "Decolonization is a Queer Desire: Poetics, Politics, Negativity." *Making Space for Indigenous Feminism*, edited by Gina Starblanket, 3rd ed., Fernwood Publishing, 2024, pp. 238-251.

Dissertation:

Dennis, Abigail Sophie. *Feasts, Friends and Feminists: The Performance of Aberrant Female Appetite in Neo-Victorian Fiction*. 2008. U of Queensland, MPhil thesis. UQ eSpace, [espace.library.uq.edu.au/view/UQ151848](http://espace.library.uq.edu.au/view/UQ151848).

Conference materials:

Freed, Barbara F., editor. *Foreign Language Acquisition Research and the Classroom: Proceedings of the Consortium for Language Teaching and Learning Conference*, Oct. 1989, U of Pennsylvania, Heath, 1991.

Electronic resource:

Poncelet, Barbara. "Mom Am I Fat?: Helping Your Teen Have a Positive Body Image." *Verywell.com*, About Inc., 20 Apr. 2016, [www.verywell.com/mom-am-i-fat-3200843](http://www.verywell.com/mom-am-i-fat-3200843).

For more information, see the official website: <https://style.mla.org/>

- **Chicago (Notes & Bibliography)**

Book by:

D'allea, Anne, and Michael Cothren. *Methods and Theories of Art History*. 3rd ed. Laurence King Publishing, 2021.

E-book:

Bonds, Mark Evan. 2014. *Absolute Music: The History of an Idea*. Oxford University Press. [doi.org/10.1093/acprof:oso/9780199343638.003.0004](https://doi.org/10.1093/acprof:oso/9780199343638.003.0004).

The article in the magazine:

Marshall, Kingsley, and Rupert Loydell. 2016. "Thinking inside the Box: Brian Eno, Music, Movement and Light." *Journal of Visual Art Practice* 16 (2): 104–18. <https://doi.org/10.1080/14702029.2016.1195073>.

Chapter in the book:

Vernon, Christopher, and George Seddon. 2006. "Hackett and Annear: Laying the Foundations." In *A Landscape for Learning: A History of the Grounds of The University of Western Australia*, edited by George Seddon and Gillian Lilleyman, 30-35. University of Western Australia Press.

Conference materials:

Rodeš, Sanja. 2021. "Image, Fashion and Architecture: The Case of Prada." In *Proceedings of the Society of Architectural Historians Australia and New Zealand: 37, What If? What Next? Speculations on History's Futures*, edited by Kate Hislop and Hannah Lewis. SAHANZ. <https://www.sahanz.net/publications/papers/image-fashion-and-architecture-the-case-of-prada/>

Electronic resource.:

Royal British Association of Architects. n.d. "History of the Library and collections." Accessed April 4, 2013.

<http://www.architecture.com/LibraryDrawingsAndPhotographs/RIBALibrary/History.aspx>.

For more information, see. official website:

[https://www.chicagomanualofstyle.org/tools\\_citationguide/citation-guide-1.html](https://www.chicagomanualofstyle.org/tools_citationguide/citation-guide-1.html)

- **ACS (American Chemical Society)**

Book:

Frankel F. Brewed Tea: the Chemistry of tea; Royal Chemical Society, 2024.

E-book:

Tanemura K. A.; Sierra Costa D.; Merz K. M., Jr. "Python for Chemists"; American Chemical Society, 2022. DOI: 10.1021/acsinfocus.7e5030

Article in the journal:

Tan G. Y.; Das M.; Keum H.; Bellotti P.; Danilyuk S.; Glorius F. Photochemical one-step synthesis of  $\beta$ -amino acid derivatives from alkenes and (hetero)arenes. *Chemistry of nature*, 2022, 14 (10), 1174-1184. DOI: 10.1038/s41557-022-01008-w

Chapter in the book:

Schmitz K., Kremmans K., Bissadi G. Application of machine learning algorithms in materials chemistry. *Computational and data-driven chemistry using artificial intelligence: Fundamentals, Methods, and Applications*; Akitsu, T., ed.; Elsevier, 2022; pp. 161-192. DOI: 10.1016/B978-0-12-822249-2.00001-3

Dissertation:

Cable M. L. Life in extreme conditions: detection of bacterial spores based on lanthanides and other developments in the field of sensors: Doctoral dissertation, California Institute of Technology, 2010. <http://resolver.caltech.edu/CaltechTHESIS:05102010-145436548>

Conference materials:

scientific article by Nilsson A., Petersson F., Persson H. V., Jonsson H., Laurell T. Manipulation of suspended particles in laminar flow. *Micro Total Analysis Systems 2002, Proceedings of the MKTAS 2002 Symposium*, Nara, Japan, November 3-7, 2002; Baba Y., Shoji S., van den Berg A., ed.; Kluwer Academic: Dordrecht, the Netherlands, 2002; Volume 2, pp. 751-753. DOI: 10.1007/978-94-010-0504-3\_50

Electronic resource:

Synthesis of battery materials; U.S. Department of Energy, National Renewable Energy Laboratory. <https://www.nrel.gov/transportation/battery-materials-synthesis.html> (accessed 2024-05-04)

<https://pubs.acs.org/doi/full/10.1021/acsguide.40303>

For more information, please contact: <https://pubs.acs.org/doi/full/10.1021/acsguide.40303>

## Example of drawing design

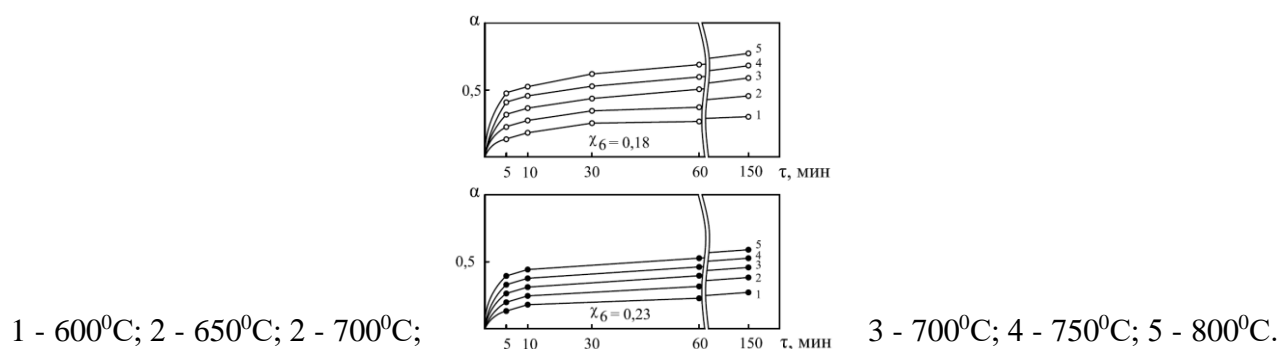


Figure 1 – Kinetics of interaction of iron phosphide with soda at temperatures

**Example of the design of tables**

**Table 1 – Distribution of KSP of individual leukocyte formula cells**

Types of cells	Control		LSP, day 7	
	Winter	Summer	Winter	Summer
Neutrophils	0,93	0,87	0,91	1,09
Eosinophils	1,30	2,46	0,75	1,46
Monocytes	1,07	1,54	0,79	1,14
Lymphocytes	1,01	1,03	1,04	0,93