

### 1.2.1 Update of the requirements of the Higher Attestation Commission

Due to the current geopolitical situation, access to scientometric databases is limited for Russian scientists. Moreover, references to the Web were removed from the “Regulations on the conferral of academic titles” and “Regulations on the conferral of academic degrees.” of Science and Scopus . The recommendations of the Higher Attestation Commission dated October 26, 2022 “On new criteria for applicants for the academic degrees of Candidate of Sciences, Doctor of Sciences, and members of dissertation councils” now talk about the number of publications that present the main scientific results of a dissertation for the academic degree of Candidate of Sciences or Doctor of Sciences , in peer-reviewed scientific publications (reviewed publications mean journals from the “List of Higher Attestation Commission”). These criteria will be introduced from September 1, 2023.

The current List of peer-reviewed scientific publications with the distribution of journals by category has been published on the website of the Higher Attestation Commission. The assessment methodology is based on two groups of indicators:

1. Quantitative indicators according to the RSCI: Science rating Index ; Herfindahl-Hirschman index ; Ginny index ; average H- index of authors; 10-year edition H- index ; average number of views per article per year.
2. Qualitative indicators assessed by the Expert Councils of the Higher Attestation Commission: quality of articles; uniqueness of articles; the level of authority of the authors; quality of review organization; founding organization.

Based on the sum of these indicators, the magazines were divided into three categories: K1 , K2, K3. The ratio of journals K 1 – 25%, K2 – 50%, K3 – 25%.

Web databases of Science , Scopus , PubMed , etc. and the list of RSCI journals are equal to publications of category K 1 .

According to the new requirements, applicants (postgraduate students, etc.) for a candidate's degree, with the exception of some scientific fields, need at least three publications (for other branches of science - at least two), including publications in scientific journals indexed the RSCI database, as well as in scientific publications indexed by international databases, the list of which is determined in accordance with the recommendations of the Higher Attestation Commission.

Thus, applicants for a candidate's degree in most branches of science can publish in all three categories of the "List of Higher Attestation Commissions".

The same system works for the number of publications that present the main scientific results of a dissertation for the degree of Doctor of Science in peer-reviewed scientific publications. Only their number changes.

In historical, pedagogical, political, psychological, sociological, philological, philosophical, economic, legal branches of science, art history, cultural studies and theology, at least 15 articles are needed, of which at least 5 publications K-1 or K-2, or from RSCI, or from a separate list for journals from international abstract databases and citation systems. Those. Doctoral students can have 10 articles in K-3.

Doctoral students in other fields of science need at least 10 articles, of which at least 5 publications must be published in scientific journals K-1 or K-2, either from RSCI, or from a separate List for journals from international abstract databases and citation systems. Those. Doctoral students in these branches of science may have 5 articles in K3.

Applicants for the scientific degree of Doctor of Science, issued in the form of a scientific report, and candidates for membership in dissertation councils cannot publish in K3.

### **1.2.3 Distribution of NRNU MEPhI journals in the list of Higher Attestation Commissions by category**

The distribution of journals by category (K 1 , K2, K3) has been published on the HAC website. Scientometric (quantitative) data on MEPhI journals for 2021, as well as their distribution by category, is shown in Table 1. The indicator values are taken from the journal pages on the website elibrary.ru.

Table 1 – Quantitative indicators for MEPHI journals for 2021

Magazine \ Index	Category	Science Rating Index	Herfindahl index	Ginny Index	Average h-index	10-year H-index	Average number of views
Information technology security	K3	3124	1435	0.62	6.2	eleven	244.1
Bulletin of National Research Nuclear University MEPHI	K2	3888	3483	0.83	12	9	213.3
Global Nuclear Security	K3	3779	3326	0.88	5.6	12	86.9
News from universities. Nuclear energy	K2 *	2183	1153	0.56	5.9	12	204.6
Quantum electronics	K1 **	907	323	0.71	15	35	116.7
Scientific visualization	K1 **	1500	503	0.79	8.2	17	82.1
Physical education in universities	K3	4223	357	0.91	5.4	10	127.3
Nuclear physics and engineering	K3 **	782	6327	-	-	12	952.2

\* – “News of universities. Nuclear Energy” is included in the list of the Higher Attestation Commission and, based on the assessment, is assigned to category K 2 , but is equated to category K1 as a journal included in Scopus

\*\* – The publications “Quantum Electronics”, “Scientific Visualization”, “Atomic Energy” and “Nuclear Physics” are not included in the list of Higher Attestation Commissions. Equated to K 1 as journals included in Scopus and Web of Science

\*\*\* – “Nuclear Physics and Engineering” is included in the list of Higher Attestation Commissions and, based on the assessment, is assigned to category K3. Translations of articles published in the journal Physics of Atomic Nuclei ( Scopus , Web of Science ), are equal to K 1