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S.I. Vavilov's manuscript letter to Stalin

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Abstract. A letter from S I Vavilov, then President of the Academy of Sciences of the USSR, to Stalin has been discovered in the archives of the Science Department of the Central Committee of the Communist Party of the Soviet Union, which is concerned with the problem of secrecy in physics and suggests criteria by which classified and nonclassified studies may be distinguished. The letter is not only of interest to physicists and science historians, but also is a telling document of the totalitarian times, when it took no less than the states's top leaders to resolve issues as this.

Classification for the sake of 'protecting state secrets', be they genuine or sham, was a priority in the activities of Soviet state and of communist party structures ever since the 1917 revolution. The issue became even more acute in the late thirties, then during the Second World War and afterwards. Quite naturally, scientific research, especially where military issues were involved directly or indirectly, had always been the focus of the of attention 'supervising agencies'.

In certain cases, the protection of 'state secrets' could be used, and was used, as a means of persecuting someone who was out of favour with the regime; that included scientists too. A document which is of great interest in this context has been discovered in the archives of the Science Department of the Central Committee of the USSR Communist Party: a letter addressed to Stalin by S I Vavilov, President of the USSR Academy of Sciences. The manuscript is not dated; the only indication to time is the date of its registration at the Communist Party Central Committee: April 23, 1948.

The letter deals with classifying scientific papers in various 'fields of modern science', including cosmic rays. That was a time when the atomic project had just been launched; extant strict classification rules were further reinforced in 1948 by a special government decree. Sergeĭ Vavilov was undoubtedly concerned about the possible classification of physics research papers which contained no 'state secrets', especially since there were no clear criteria for classifying scientific research. The letter suggests parameters for just this procedure, i.e. for deciding whether a research paper was to be classified or could be openly printed. In his pursuit of ensuring permission to publish research papers on cosmic rays, Vavilov's main argument was the 'issue of priority of discoveries', a key issue in decision-making at the time when the 'struggle against cosmopolitanism' was at large. The President of the Academy was no less concerned by the fact that classifying information 'deprives the majority of our scientists of the opportunity to make timely use of new important discoveries and results' and that 'profound criticism of the latest research papers is almost out of the question...'.

Despite the fact that the letter only deals with classifying physics papers and contains a direct request concerning publications on cosmic rays, in those circumstances the approach used by Vavilov could certainly have been valid for other fields of science in which secrecy was a problem. Unfortunately, we have no evidence that the controlling agencies used S I Vavilov's method with respect to other fields of science. Besides, in those days such matters could hardly be handled on someone's personal initiative.

The archive of the Science Department of the Communist Party Central Committee has quite a few documents signed by S I Vavilov in the capacity of President of the USSR Academy of Sciences. All of them, including 'classified' and 'top secret' ones, are typewritten. Why does the handwritten letter have no registration data? It is doubtful that the President should have had a reason to rank this particular letter as more secret than others and thus keep it hidden from the Presidium management. Most likely, the letter was written during one of Vavilov's visits to the Council of Ministers or the Communist Party Central Committee, and handed over to one of the state officials.

A typewritten copy was made at the office of the Communist Party Central Committee; it is captioned 'From the President of the Academy of Sciences, Comrade Vavilov' . Apparently, the matter was not solved at once; after a while, it surfaced in the Organizing Bureau of the Communist Party Central Committee. The following references were added to the file:

To the Technical Secretariat of the Organizing Bureau of the Communist Party Central Committee

Reference to No. 2299

The request of the President of the Academy of Sciences Academician Vavilov to permit the publication of scientific reports on cosmic rays, which have great scientific value and contain no state secrets, has already been sanctioned by the Vice Chairman of the USSR Council of Ministers Comrade V M Molotov.

Please store the letter of Academician Vavilov in the archive.

15/VI-48 (Yu Zhdanov) [1]

The sentence saying that 'the request... has already been sanctioned' probably means that since the letter was addressed to Stalin, the Council of Ministers had the right to consider it and made the appropriate decision. Below is the text of Vavilov's letter; a facsimile of the letter can be found on pp. 950 – 951.

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Товарищу Сталину И. В.

Глубокоуважаемый Иосиф Виссарионович!

Докладываю Вам о некоторых предложениях по вопросу об опубликовании научных исследований в области физики при практическом применении постановления Совета министров СССР от 1 марта 1948 г.

На основании п. 97 перечня, приложенного к этому постановлению, государственной тайной считаются крупные научные работы в областях современной физики. Неопределенное понятие о крупной научной работе приводит к трудностям при суждении о том, составляет ли та или иная работа государственную тайну.

Прошу Вашего указания, может ли академия наук при решении вопросов, связанных с этим вопросом, руководствоваться такими признаками:

Не могут публиковаться 1) работы по физике прямо связанные с военной техникой, а также имеющие близкую перспективу военного применения, 2) работы по физике, существенные для разных видов основной техники и промышленности, 3) работы по физике, содержащие ценные данные для медицины и военного дела.

В связи с общими вопросами докладываю о содержании публикуемых работ по космическим лучам.

В 1946 и 1947 гг. было опубликовано 18 научных сообщений по космическим лучам, не имеющих существенного значения для проблемы овладения атомной энергией. В настоящий момент подготовлено для печати около 20 работ, касающихся новых экспериментальных результатов в области космических лучей и открывающих возможность их публикации. По электронно-ядерным явлениям государственной тайной (в соответствии с перечнем общих признаков

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не содержится. Вместе с тем космические лучи являются
большой интерес в принципиальный интерес не только
для физики, но для астрономии и геофизики в целом
(таковы например открытия новых элементарных частиц
частиц-мезонов в составе космических лучей).

Насколько можно судить по научным журналам за границей
в США, в Англии, во Франции и в Италии во всех этих
непосредственно публикуются многие оригинальные работы по
изучению космических лучей. При этом несомненно, однако,
что большинство работ, имеющих прямое отношение
к расходу энергии и теории [illegible]
лучей, в печать не попадают.

Сохранение в [illegible] многих новых открытий, сделанных
нашими советскими учеными при изучении космических
лучей приносит по моему мнению мало пользы. Такая
секретность лишает возможности широкий круг наших ученых
своевременно использовать новые важные факты и создает
в их работе. Вместе с тем при условии секретности почти
исключается глубокая критика новых работ, которая
особенно необходима при изучении космических лучей.
Эта область во всем мире исследуется сейчас в основном
при помощи одних и тех-же методов, к работе в ряде стран
привлечено большое число ученых и потому почти каждое
научное открытие в космических лучах делается в различ-
ных странах независимо с разницей во времени в несколь-
ко месяцев. При таких условиях задержка публикации
новых результатов влечет за собою потерю приоритета для
нашей науки.

Докладывая Вам об изложенном, прошу Вашего решения
по затронутым вопросам.

С. Вавилов

Deeply respected

Iosif Vissarionovich,

I am reporting to you certain difficulties concerning the publication of scientific research in the field of physics, arising from the enactment of the Decree of the USSR Council of Ministers March 1, 1948.

On the basis of item 97 of the list appended to the Decree, major scientific research in fields of modern physics is classified. The undefined phrase 'major scientific research' makes it difficult to decide whether a particular research paper should be classified or not.

I am asking you to advise us whether the Academy of Sciences can use the following criteria to make decisions concerning classified material:

It is forbidden to publish: 1) papers on physics that are directly concerned with military technology or have a close perspective of military application; 2) papers on physics which are important for various spheres of technology and industry; 3) papers on physics containing results which are important for healthcare and agriculture.

In the general context, I am reporting the situation relating to the publication of papers on cosmic rays.

18 scientific papers on cosmic rays were published in 1946 and 1947. They were of no particular importance to the issue of using nuclear power. Twenty more papers containing new experimental results in the field of cosmic rays are now ready for printing and await a decision on whether they may be published. The papers contain no state secrets (according to the criteria listed above). Meanwhile, some of the newly discovered phenomena are of crucial interest to natural sciences and philosophy as well as physics (for instance, the discovery of new types of elementary particles of matter in cosmic rays).

As far as can be judged from scientific journals, in countries abroad — in the USA, England, France and Italy — many important results concerning cosmic rays have so far been published without delay. There is meanwhile no doubt that most papers which are directly concerned with nuclear fission of uranium and thorium caused by cosmic rays do not appear in print.

I do not believe there can be much good in keeping secret the numerous new discoveries made by Soviet scientists in the field of cosmic rays. Their classified status deprives the majority of our scientists of the opportunity to make timely use of new discoveries and results. Moreover, profound criticism of the latest research papers, essential where the study of cosmic rays is concerned, is almost out of the question if the papers are classified. The bulk of research in this field is done with the same methods worldwide; in a whole range of countries, a large number of scientists are involved in it. Therefore, almost every discovery in the field of cosmic rays is made independently in several countries within a few months. In such circumstances, delayed publication of the latest results causes our science to lose priority.

With the matters standing as reported here, I request your decision on the issues raised above.

S Vavilov

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References

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