6. Fusion Science Archives (FSA)

The Fusion Science Archives (FSA) was established in 2005 to learn lessons from past fusion science archives which have been preserved and to maintain collections of historical documents and materials that are related to fusion research in Japan. These activities are important from the viewpoint of the historical evaluation of fusion research, its social accountability, and creating references for seeking future directions. Since then, historical materials on fusion research and/or organizations related to fusion research have been collected and preserved at the FSA. They are stored in acid-free folders and boxes. Catalogs of registered items are available to the public through the internet in a hierarchical structure.

The following are some of the collaborative works done this fiscal year.

- **Archival Studies on Collaborations in Heliotron Studies at Kyoto University**

  T. Mizuuchi (Kyoto Univ.) *et al.*

  The activities of this archival study are focused on the materials relating to the development of plasma devices, especially on the development of the series of Heliotron devices originating from Kyoto University. These archives cover not only the hardware but also related researchers, research groups, and their activities which have contributed to the development of the Heliotron concept. In these years, digitizing work of the minutes of research group meetings (PEC, etc.) from the Heliotron-E project has progressed. As of the end of this fiscal year, up to 33 of the 44 volumes of PEC files have been digitized. In addition, we have started to transfer materials recorded on older media such as MO to a new recording medium that can be easily accessed in the current PC environment. As for about 60 volumes of MO data, we have finished transferring the data from MO to HDD. For other materials that have not been sorted, we are trying to categorise and digitize them in turn.

- **Construction of Digital Library of Husimi Kodi Archives**

  H. Iguchi (NIFS, FSA) *et al.*

  Until the end of the last fiscal year, about 900 documents among a total of 4,800 Husimi Kodi documents had been digitized. This year, we started work on those documents in Box 500s, which are mainly related to nuclear development in the early phase in Japan. Kodi Husimi had been a key person in Japanese nuclear development from the early 1950s. After becoming director of the Institute of Plasma Physics, Nagoya University, in 1961, he continued to be involved in policy making. There is a reasonable number of related documents left in the archives, for example, an application form for permission for the construction of the Fukushima Nuclear Power Plant by Tokyo Electric Power Co., Inc (TEPCO). Unfortunately, only a small part of the documents has been digitalized this year, due to the COVID-19 situation. The project should be continued in the daily work of NIFS-FSA.

- **Studies on the history of the establishment of the Institute of Plasma Physics, Nagoya University**

  T. Amemiya (CST Nihon Univ.) *et al.*

  In 1961, the Institute of Plasma Physics (IPP), Nagoya University, was established as the Inter-University Research Institutes of plasma physics and controlled fusion research in Japan. The purpose of this collaborative research is to find new historical interpretations of the IPP, based on the historical documents in NIFS FSA and CST Nihon University. This collaborative research of FY2021 consists of the following subjects: 1) "On the relationship and influence between the Assembly for Nuclear Fusion Reaction (Kakuyugo-Hannou Kondankai) and the Nuclear Fusion Research Group (Kakuyugo-Kondankai)", 2) "On the drafting and background of the plan for the IPP" and 3) "Analysis of historical documents about the establishment of the IPP."

- **Improving name authority data about persons, groups, and organizations related to fusion science in Japan, for fusion science archives**

  H. Gotoh (The Kyoto University Museum) *et al.*

  This study aims to establish a methodology for improving archival name authority data related to fusion science in Japan, which is necessary for identifying names and of proper understanding of various materials. Information about the steering and scientific committee of the Institute of Plasma Physics, Nagoya University, and organizations that committee members belonged to was collected and analyzed (187 committee members and 51 organizations). On February 4, 2022, we held a meeting online and discussed methodologies and desirable output formats. The meeting resulted in the following conclusion: the authority data that we will create in this study needs to be a key data set that can be used to get information from existing authorities' data services and academic data ones, but not necessarily to have a full information set, according to the standard authority data format.

- **Collaborative Activities at NIFS Fusion Science Archives**

  S. Kubo (Chubu Univ.) *et al.*

  One of the topics of this fiscal year is the acceptance of Kazuhisa Mori's personal records and historical materials. Kazuhisa Mori is a younger brother of Shigeru Mori who led Japanese fusion research from its dawn period. He belonged to Hideki Yukawa's laboratory at Kyoto University when the atomic bomb was dropped on Hiroshima. After using up his nine lives, he entered journalism and campaigned for the peaceful usage of atomic power throughout his life, dying in 2010. Reiji Sugano established a voluntary editorial committee, recognizing the importance of archiving Kazuhisa Mori's historical material, and finally completed his reminisces and catalogues of a part of the materials. (Details can be seen and downloaded from https://www2.yukawa.kyoto-u.ac.jp). These important materials that had been kept privately were transferred to FSA through a kind offer from his wife in November 2021.

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