

## §8. Archival Studies on History of IAEA Fusion Energy Conference

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### 1. Background and Purpose

Fusion Energy Conference is known as the most important conference in the field of nuclear fusion research. The name of the nuclear fusion would be known by the speech of Chairperson Homi J. Bhabha in the first United Nations Conference on the Peaceful Uses of Atomic Energy in 1955. In the second United Nations Conference in 1958, the session of nuclear fusion was established, and researchers from many countries announced their result of the nuclear fusion research. Consequently, the International Atomic Energy Agency (IAEA) established in 1957 would hold Conference on Plasma Physics and Controlled Nuclear Fusion Research. This conference was renamed Fusion Energy Conference in 1996.

After the second United Nations Conference, the research of the nuclear fusion in the world has reached the 50<sup>th</sup> year in 2008. Therefore, History of Science Group of CST Nihon University, NIFS Research Information Office and NIFS FSA started the cooperative research on archival studies on the history of Fusion Energy Conference. In this fiscal year, we investigated historical documents for Fusion Energy Conference and studied a history of Fusion Energy Conference and a history of international exchange of nuclear fusion research in Japan. In addition to it, we drew up tables and chronology of Fusion Energy Conference.

### 2. Content and result of this research (present status)

#### 2-1 Investigation of historical documents for Fusion Energy Conference

We investigated historical documents for Fusion Energy Conference. They are the proceedings and trip reports written by Japanese, American and Russian researchers who attended the conference. They are kept in NIFS Research Information Office, NIFS FSA and NIFS library. In this fiscal year, we investigated historical documents for international exchange and international conference on nuclear fusion (Fusion Energy Conference included) what Dr. Kenzo Yamamoto (Professor Emeritus, Nagoya University) had and was kept in Japan Atomic

Energy Agency (JAEA).

#### 2-2 Historical Studies of Fusion Energy Conference

Based on these documents, we studied about “effort of nuclear fusion community in Japan toward Second Conference on Plasma Physics and Controlled Nuclear Fusion Research (the Culham Conference) and its effect on the community”, “Japanese activity for an invitation of international conference to Japan for 1960s”, “Kodi Husimi’s opinion in his trip reports for foreign laboratories and the first Conference on Plasma Physics and Controlled Nuclear Fusion Research in 1961” and “a historical context of holding a meeting of Panel on the Low Beta Toroidal Systems under the auspices of JAERI in 1971” etc. The results of our research were presented at the meeting of the Physical Society of Japan, at the annual meeting of Japanese Society for the History of Science and Technology and at the annual conference of college of Science and Technology, Nihon University.

#### 2-3 Compilation of the simple chronology of Fusion Energy Conference

We drew up a simple chronology of Fusion Energy Conference (Table.1) on a survey of the conference’s proceedings. In addition to it, we made tables of the number of reports and lecturers of memorial lecture session each time of the Conference.

Table1. Simple chronology of Fusion Energy Conference

Time	Date	Year	Site
1st	Sep. 4-9	1961	Salzburg, Austria
2nd	Sep. 6-10	1965	Culham, UK
3rd	Aug. 1-7	1968	Novosibirsk, USSR
4th	Jun.17-23	1971	Madison, Wisconsin, USA
5th	Nov. 11-15	1974	Tokyo, Japan
6th	Oct. 6-13	1976	Berchtesgaden, Germany
7th	Aug. 23-30	1978	Innsbruck, Austria
8th	Jul. 1-10	1980	Brussels, Belgium
9th	Sep. 1-8	1982	Baltimore, Maryland, USA
10th	Sep. 12-19	1984	London, UK
11th	Nov. 13-20	1986	Kyoto, Japan
12th	Oct. 12-19	1988	Nice, France
13th	Oct. 1-6	1990	Washington, D.C., USA
14th	Sep. 30-Oct. 7	1992	Würzburg, Germany
15th	Sep. 26-Oct. 1	1994	Seville, Spain
16th	Oct. 7-11	1996	Montreal, Canada
17th	Oct. 19-24	1998	Yokohama, Japan
18th	Oct. 4-10	2000	Sorrento, Italy
19th	Oct. 14-19	2002	Lyon, France
20th	Nov. 1-6	2004	Vilamoura, Portugal
21st	Oct. 16-21	2006	Chengdu, China
22nd	Oct.13-18	2008	Geneva, Switzerland

### 3. Location of materials and future planning

We investigated historical documents for Fusion Energy Conference efficiently by this collaborative research. Furthermore, we were able to know historical facts on Fusion Energy Conference.

By the end of this research, we would like to make the detailed chronology of Fusion Energy Conference.

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