Our dream to realize fusion energy is alive Professor Osamu Motojima 26th IAEA Fusion Energy Conference, Oct 2016

Ladies and Gentlemen. I wish you are enjoying IAEA conference and Kyoto.

It is my great privilege to make the welcome speech at this banquet of the IAEA Fusion Energy Conference, organized by IAEA and hosted by the Government of Japan through MEXT and NIFS, National institute for Fusion Science for which the new Director General is Prof Takeiri.

First of all, I would like to celebrate the success of this conference which has gathered together more than 1000 participants from all over the world. I thank DG Takeiri of NIFS and his group for their great effort to organize this important conference.

I am very glad to mention that in this conference week, we are reconfirming to each other the steady progress of fusion research, which has produced many innovations confronting new challenges. Personally it is my great pleasure to meet so many friends.

Our dream to realize fusion energy is alive; in other words; our objective is to bring the Sun to the Earth, and we are firmly moving ourselves forward towards the scientific and engineering goal. The realization of fusion energy has become more than just a dream; it is now a real target, since the ITER project has come into the real construction phase. Thus, the role and responsibility of the ITER project is inevitably growing, and has moved beyond the turning-back point.

LHD of NIFS Heliotron will starts the D-D experiment soon. The new comer W7X Stelarator is welcome. The results of DIII-D, JET, ASDEX-U, EAST, KSTAR, Alcator C-Mod and other Tokamaks are very encouraging. Research on the inertial fusion, theory and technology are also remarkably progressing.

Prof liyoshi mentioned in his keynote speech on Monday that, in such a situation, much more intensive collaboration together with competition in the research community is necessary to meet our goal. This is a very encouraging statement and I would like to fully agree with and support his idea.

IAEA will continue to take care of its important role of fusion, and I thank DG Mr Amano who first time attended the opening session in the long history of IAEA-FEC and the IAEA Scientific Secretaries, Mr Kaiser and his colleagues for maintaining your strong interest in the support of fusion.

It is a good opportunity to thank Dr. Alain Becoulet who is the chair of the program committee and its members. Program committee members spent

one week at Vienna to decide the whole program of this conference. It is always a tough and big job as you know. From the ITER organization, Dr Joe Snipes is a member, who is here. I would like to thank Joe and all the members for your hard work and efforts. You did a good job!

I am really pleased to hear DG Bigot's plenary talk on the status of the ITER project, which maintains the steady progress of the ITER construction, overwhelming the existing difficulties. He declared his strong will not to delay the 500MW DT burning experiment and I fully support this strategy. To this end, from my experience, I believe that the ITER Council needs to give the DG more authority and power for the management of the whole ITER team including budget which makes the cash flow much easier.

As you know, the Paris convention's goal will soon be effective during COP22 (Conference of Parties) in Morocco on 7 Nov, since more than 55 countries have ratified the recommendation already. I believe that everybody here knows that this convention aims at Zero CO₂ emission. And since this is not an easy job, many more innovations to meet the difficult challenges are required.

Therefore, the world is tackling the many challenges to develop solar, wind, bio and other renewable energy sources. At the same time, it is very interesting that CCS (Carbon dioxide Capture and Storage) is becoming a big business like oil and natural gas. However, some environmentalists are claiming that CO₂ zero emission is not enough but instead that minus emission is the only solution for our survival. For me this sounds realistic. In this trend, I have great confidence that nuclear energy, the fusion energy will attract more and more interest and hope from the people.

Ladies and Gentlemen. It is not necessary to mention that our common and ultimate objective is to realize the fusion energy that contributes to the sustainable world and peace. I believe that the ITER project is able to find its position outside of the political tension, like the collaboration of the space laboratory. I will be very glad if we are able to confirm this philosophy in this conference in Kyoto.

Ladies and Gentlemen, I am very happy to meet you again. I remember well that the banquet in St Petersburg was so nice. However, NIFS is preparing nice attractions as well, which will soon start. At the end, I would like to thank Prof Yamada and his group, who as the local secretaries, played an important role for the success of this conference.

Ladies and Gentlemen. Please enjoy the banquet and conference, as well as Kyoto. We are very glad if you learn about Japan and in particular, the Japanese people's hospitality, history and culture.

Thank you very much for your attention.

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