

6. Collaboration under Implement Agreement between MEXT of Japan and the MOST of China for Cooperation in the Area of Magnetic Fusion Energy Research and Development and Related Fields (JWG)

The China-Japan collaboration under the collaboration agreement between the MEXT of Japan and MOST of China has been performed following the result of 7th JWG (Joint Working Group) held in Dalian, China on July 25, 6 2014.

In the meeting, in total 46 collaborative programs (11 programs from NIFS to China and 19 programs from China to NIFS) are proposed and approved for the fiscal year of 2014. Following 9 among 11 approved programs from Japan to China are performed.

- JC108 I. Yamada and R. Yasuhara to SWIP, 1 week
– *Thomson scattering diagnostic on HL-2A/M*
- JC109 S. Ohdachi to SWIP, 1 week
– *MHD instabilities and imaging diagnostics*
- JC111 A. Sagara to ASIPP/HNERC, 1 week
– *Design of helical reactor and engineering R&D*
- JC112 T. Goto to ASIPP/HNERC, 1 week
– *System designs of LHD-type helical reactor*
- JC113 J. Yagi to ASIPP/HNERC, 1 week
– *Construction of liquid breeder test loop Oroshi2i-2*
- JC114 S. Yamada to ASIPP, 1 week
– *Discussion on R&D Items for SC magnet, SC feeders and Cryogenic System for ITER and CFETR*
- JC116 A. Sagara and T. Nagasaka to SWIP, 1 week
– *Discussion on small sample technology & design*
- JC117 H. Chikaraishi to SWIP, 2 weeks
– *Collaboration on the control of magnetic field power supply*
- JC118 K. Okuno and Y. Oya (Shizuoka U.) to SWIP, 1 week
– *Tritium release behavior for the tritium breeder*

Each program has been performed as substantial collaborations in each field and benefitted in the research progress of both sides as well as making the mutual understanding stronger for the future collaborations.

Following 21 collaborations are performed and 2 are postponed out of 25 approved programs from China to NIFS are performed

- CJ112 S. Song (SWIP) with S. Kubo, 2 weeks
– *Participation to the ECRH experiment on LHD*
- CJ116 K. Lu (ASIPP) with S. Yamada, 1 week
– *Development of Feeder system for fusion device*
- CJ117 J. Wei (ASIPP) with S. Yamada, 1 week
– *Development of manufacturing equipment and technology for fusion device*
- CJ126 S. Zhang, Y. Liu (ASIPP) with N. Oyama (JAEA), S. Morita, 1 week
– *Development of microwave reflectometry*

- CJ128(CJ115) J. Chang, R. Zhou (ASIPP) with M. Isobe, K. Ogawa, 2 weeks
– *Lost-fast Ion Probe and Runaway*
- CJ129 G. Zhong (ASIPP) with M. Isobe, 1.5 weeks
– *Neutron diagnostics*
- CJ134 J. Huan and Q. Han (ASIPP) with S. Yamada, 1.5 weeks
– *Manufacturing technique research for Mineral-Insulated Conductor (MIC) and Conductor components*
- CJ135 H. Liu (ASIPP) with K. Tanaka and T. Akiyama, 1.5 weeks
– *Key points for setting up polarimeter /interferometer on EAST, LHD and Helitron-J*
- CJ136 C. Hu, Y. Xie and L. Tao (ASIPP) with Y. Takeiri, 3 weeks
– *Issues on SS operation of P&N ion source*
- CJ137 J. Wei and P. Shen (ASIPP) with Y. Takeiri, 1 week
– *Optimization and Stable operation of NBI*
- CJ138 L. Zhan (ASIPP) with S. Morita, 1 week
– *System upgrade and DATA exchange and analysis of EXUV spectrometer*
- CJ141 Y. Liu and Y. Zhang (SWIP) with Y. Suzuki, 1 week
– *Comparative study of Effect of RMP on HL-2A and LHD*
- CJ142 D. Yu (SWIP) with K. Ida
– *Measurements of the T_i and V_t profiles and the study of ITB on the HL-2A/2M*
- CJ143 P. Zheng and S. Yang (SWIP) with T. Nagasaka and J. Yagi, 3 weeks
– *Joint-work of low activation material tests and V loop design*
- CJ144 Z. Shi and M. Jiang (SWIP) with Y. Nagayama and T. Tokuzawa, 1 week
– *Collaboration of microwave diagnostics*
- CJ145 J. Gao (SWIP) with B. Peterson, 1 week
– *Comparative Study of radiated power on HL-2A and LHD*
- CJ146 K. Feng, P. Li and Y. Feng (SWIP)
– *12th Japan-China Symposium on Materials for Advanced Energy Systems and Fission & Fusion Engineering*
- CJ147 P. Zheng (SWIP) with T. Nagasaka, 4 weeks
– *Collaborative testing for V-4Cr-4Ti-1.5Y-0.3Ti3SiC2 alloy*

Those who stayed in NIFS during LHD experimental campaign joined the LHD plasma experiment.

Next JWG meeting (JWG-8) will be held in Inuyama, Japan near the end of July 2015 to discuss fiscal year 2016 programs.

(Kubo, S.)