

# Progress in Design and Fabrication of Current and Helium Feeding System for JT-60SA Superconducting Coils

*Friday, October 26, 2018 8:30 AM (4 hours)*

To realize JT-60SA of the largest superconducting tokamak device in the world, the current feeder and helium pipes have been designed so as to have the flexible structure with bend and to be supported with octagonal shape. The control system for feeding current and helium has been also developed to operate 18 Toroidal coils, 6 Equilibrium Coils and a Central solenoid. The engineering solutions developed for JT-60SA can be adopted for future fusion devices. This paper reports the progress in the design and fabrication of the current and helium feeding system to be used in JT-60SA.

## Country or International Organization

Japan

## Paper Number

FIP/P7-35

**Primary author:** Mr KIZU, Kaname (National Institutes for Quantum and Radiological Science and Technology)

**Co-authors:** Mr HONDA, Atsushi (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY); Mr MURAKAMI, Haruyuki (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY); Mr ICHIGE, Hisashi (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY); Mr TSUCHIYA, Katsuhiko (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY); Mr KAWANO, Katsumi (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY); Mr USUI, Katsutomi (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY); Mr FUKUI, Kazuma (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY); Mr KAMIYA, Kouji (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY); Mr NATSUME, Kyohei (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY); Mr SATO, Minoru (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY); Mr ISONO, Takaaki (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY); Mr KASHIWA, Yoshitoshi (NATIONAL INSTITUTES FOR QUANTUM AND RADIOLOGICAL SCIENCE AND TECHNOLOGY)

**Presenter:** Mr KIZU, Kaname (National Institutes for Quantum and Radiological Science and Technology)

**Session Classification:** P7 Posters

**Track Classification:** FIP - Fusion Engineering, Integration and Power Plant Design