
Optimal neutron shielding design for duct of Superconducting TOKAMAK device building

Seiichiro TANAKA, Koichi OKUNO and Atsuhiko SUKEGAWA

In order to design the shielding structure for the new duct of the Superconducting TOKAMAK device building, we are developing the evaluation method for dose distribution using the 3D radiation transport calculation code: PHITS. In this study, we conducted a streaming evaluation by PHITS on the conceptual design of the additional shield for the duct, which was examined in advance by simple calculation, compared it with the simple calculation method, and optimized the shield structure. As a result, it was found that a part of the additional shield (shield thickness:0.85m) could be reduced compared to the conceptual design.
