

About the Design of the Cover

The cover is designed to envisage a hopeful future shining in the sky, which is a clear blue color resembling the color of the JAEA logo. This is accompanied by white hexagons similar to the pattern on a tortoise shell, an ancient Japanese symbol of peoples' wishes for longer lives. Coincidentally, this shape is the same as that of the core fuel assemblies of both the prototype fast breeder reactor "MONJU" and the high temperature engineering test reactor "HTTR."

The images on the cover show radiation measurement from the sky using the Unmanned Airplane for Radiation Monitoring System (top left) and results of simplified simulations on the relocation behavior of simulated molten materials (bottom right).

The top left image shows the radiation monitoring system consisting of the radiation detector that we developed and the airplane that was developed by JAXA. The remote operational range of the system is up to approximately 100 km from the ground station, and the flight time can reach approximately six hours. We tested the system and confirmed its capability to map the air dose rate on the ground (Topic Chapter 1 introduction, p.10).

The bottom right image shows the results of simplified simulations on the relocation and accumulation behavior of the lower plenum of simulated core melts comprising fuels and core structural materials (Topic 4-2, p.50).



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