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**Preparation on the Coated U-7Mo Mini-plates for HAMP-2(HANARO)
Irradiation Test**

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ABSTRACT

At Kijang research reactor (KJRR), 8gU/cc U-Mo dispersion plate-type fuel was chosen to be used for the first time in the world. Therefore, a qualification test for plate-type U-Mo dispersion fuel must be conducted before obtaining a license from our regulatory body for providing plate-type U-Mo dispersion fuel for the KJRR. KAERI plans to irradiate a U-Mo mini-plate at HANARO three times (HAMP-1, 2, 3) from December, 2013.

In this paper, the overall fabrication process flow and irradiation specification for the 2nd irradiation test at HANARO (HAMP-2) will be explained in detail. For HAMP-2, eight mini-plates, i.e., four mini-plates of 8gU/cc U-7Mo/Al-5Si and four mini-plates for R&D purpose, including two U₃Si₂ fuel and one Zr coated U-7Mo fuel and one Mo coated U-7Mo fuel, were successfully fabricated. In addition, Microstructural analysis on the PVD coated U-7Mo fuel will also be discussed by using SEM, EDS & XRD.