

MURATA-1: Design of p-liquid Li Reaction Based ABNS for BNCT in Osaka University

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At present, there are many accelerator based neutron sources proposed for BNCT mainly with beryllium or lithium targets. In Osaka University, we employed liquid lithium as the target material for realization of heat removal. The technology is based on the elemental technique developed for an intense neutron source facility for fusion research, i.e., IFMIF (now named A-FNS). Only our research group has the technology and carried out studies for years using our own lithium loop in Osaka University. Experiences acquired so far have usefully been utilized for development of prototype lithium loops constructed in JAEA for the IFMIF research. Also a test of our lithium target system was carried out in Birmingham University, UK, to confirm the performance of our BNCT system. The summarized results will be described in the meeting.
