

Symposium on Nuclear Data 2020

Ag102 12.9 m	Ag103 65.7 m	Ag104 69.2m	Ag105 41.29 d	S ymposium on	Ag107 51.839 %	Ag108 2.37 m	Ag109 48.161 %	Ag110 24.6 s	Ag111 7.45 d	Ag112 2.120 h
Pd101 8.47 h	Pd102 1.02 %	Pd103 16.991 d	Pd104 11.14 %	Pd105 22.33 %	N uclear	Pd107 6.5e+4 y	Pd108 26.46 %	Pd109 15.700(26)	Pd110 11.72 %	Pd111 23.4 m
Rh100 20.8 h	Rh101 3.3 y	Rh102 2.72 d	Rh103 100 %	Rh104 42.3 s	Rh105 35.95 h	D ata	2020 Nov.	Rh108 9.0 m	Rh109 99 s	Rh110 3.3 s

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Nuclear data study for Accelerator Driven System at J-PARC

In order to decrease the toxic waste produced at the nuclear reactor, a study of the Accelerator Driven System (ADS) is going around the world. Since the neutron production target at ADS is designed to be irradiated by protons in the kinetic energy of several GeV, a study with the high-energy particles in the kinetic energy region around GeV is essential for the research and development of ADS. However, many accelerator facilities using several GeV-protons, which were built 1970's, are going to shut down due to their lifetime. Eventually, the facilities to be able to use protons with several GeV are scarce in the world. In Japan, J-PARC can only apply for the sake of ADS using the hadron including proton. At the 3-GeV proton synchrotron (RCS) facility and the beam transport line, some studies are going at J-PARC aimed for nuclear data of ADS.

In this session, some results of the experiment related to nuclear data for ADS are introduced, such as nuclide production cross-section induced by proton and displacement cross-section.

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