

Development of High Intensity D-T Fusion Neutron Generator and its Experimental Campaigns

Yican WU

- Neutron is the essential element of nuclear energy system and nuclear technology application, D-T fusion neutron source can serve in fission/fusion energy and also other nuclear technology application.
- HINEG-I is fully completed, D-T fusion neutron yield reach 6.4×10¹² n/s.
- HINEG-IIa aims to reach a neutron yield of 10¹⁵-10¹⁶n/s; preresearch of high power tritium target and high intensity beam transport is on-going.
- HINEG project will research on neutronics theory, nuclear data and program validation, materials radiation damage in high neutron radiation environment, neutronics performance of blanket/reactor, and also will expand nuclear technology applications.