This study is the first step of the development of the benchmark experiment techniques to verify the nuclear data necessary to the DEMO-FNS design. The technical documentation for fabricating the micro-models of the DEMO-FNS blankets is prepared, the calculational models of the molten salt and solid fuel blanket are made, the calculational analysis of their neutron spectra and spectral indexes is performed, and the requirements to the calculational accuracy of the basic parameters of DEMO-FNS and their blankets are formulated.

Calculational model cross section view, neutron spectra and spectral indexes for the molten salt blanket.

Calculational model cross section view, neutron spectra and spectral indexes for the solid fuel blanket.