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Seminarium Zakładu Energetyki Jądrowej i Analiz Środowiska (UZ3)
Departament Badań Układów Złożonych (DUZ)
Wtorek: **16.03.2021**
11:30

Dominik Muszyński

Simplified activation calculations in SERPENT: the case of the GEMINI+ reactor

Abstract:

The GEMINI+ reactor is a small-size high temperature gas-cooled, graphite moderated block-type reactor (HTGR). Components like replaceable reflector (RR), permanent reflector (PR), and reactor pressure vessel (RPV) are irradiated over more than the single fuel cycle (550 days). The goal of activation calculations is to determine the specific activity of selected materials after defined irradiation time (up to 60 years) together with neutron fluxes and fluences. The above factors are important for irradiated graphite management (RR), decommissioning (PR, RPV), and fluence limits. The Monte Carlo code SERPENT (v2.1.31) was used for this purpose.

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Serdecznie zapraszamy
M. Dąbrowski, T. Kwiatkowski

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