

KERMA calculation using TRIPOLI-4 and kinematics distributions of secondary particles.

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The calculation of the energies deposited by secondary particles in matter (KERMA) depends on a large amount of data: cross-sections and angular and energy distributions of the particles produced. The secondary particles can be transported or not depending on the simulation modes of the Monte Carlo codes. For the Monte Carlo code TRIPOLI-4, the particles taken into account for transport are: neutrons, photons, electrons and positrons. We will focus on neutrons and photons and explain the calculation modes of these simulated deposited energies.

In a second part, we will discuss the problems encountered with the use of recent neutron and photon transport libraries for the simulation of secondary neutron and photon.

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