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$^{100}\text{Mo}/^{99m}\text{Tc}$ and ^{64}Cu medical radioisotopes production using 14 MeV fusion neutrons

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After the 2009 ^{99m}Tc global crisis, the scientific community is in search of alternative routes for producing ^{99}Mo , the precursor of ^{99m}Tc , presently produced at fission research reactors using U-235-containing targets. International organizations such as IAEA, NEA and OECD have indicated a series of possible alternatives, based on particles accelerators as well as fast neutron reactions.

In this contribution we will present an approach based on the $^{100}\text{Mo}(n,2n)^{100}\text{Mo}$ reactions induced by 14 MeV fusion neutrons generated at a compact accelerator-driven D-T source.

Also, a brief discussion on the production of theranostic radionuclides like ^{64}Cu will be presented.

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