Mo-99 production at HBS

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Mo-99 is the precursor of Tc-99m which is the most widely used medical isotope for diagnostic with 30 to 40 million examinations worldwide per year (3 million examinations alone in Germany). Mo-99 is mainly produced by fission of U-235 with thermal neutrons in high flux reactors. The planned shutdown of 3 reactors in Europe will cause in the near future a reduction of about 60% of the Mo-99 production in Europe and thereby generate a supply shortage. Since no new reactors will be built alternative methods are urgently required. A short overview of accelerator-based techniques is given. Preliminary results on the Mo-99 production at HBS are presented and discussed.