

Activation cross-sections of the nuclear reactions $\text{natBa}(p,x)135,132\text{gLa}$, 135mBa and $\text{natCe}(p,x)142,139,138\text{mPr}$, $141,139,137\text{mCe}$ have been measured experimentally at the MGC-20 cyclotron, Cairo, Egypt, from their respective threshold energies up to about 14.7 MeV. Stacked foil irradiation technique and high-resolution gamma-ray spectroscopy were used. A comparison between the experimental and theoretical data derived from the nuclear model codes EMPIRE and TALYS (in the form of the TENDL library) was performed. The agreement in the low-energy region is fairly good. Integral yields of the produced radioisotopes were estimated from the present cross-section data and the results are .discussed in terms of their production possibilities