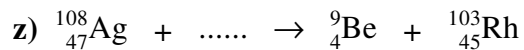
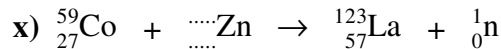
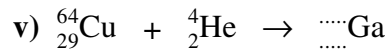
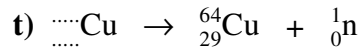
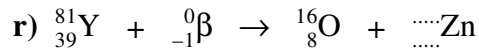
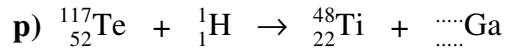
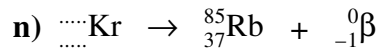
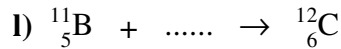
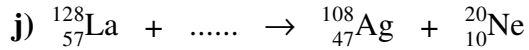
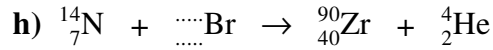
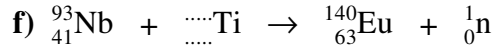
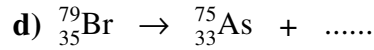
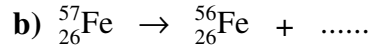
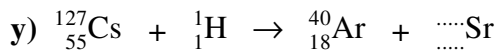
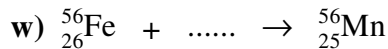
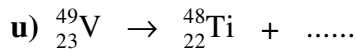
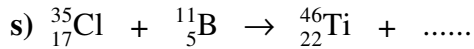
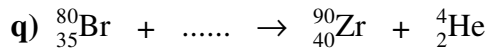
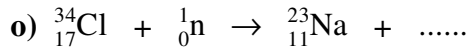
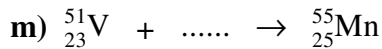
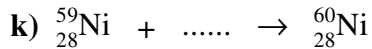
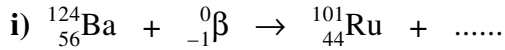
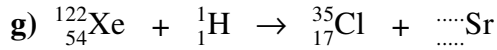
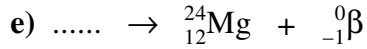
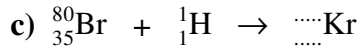
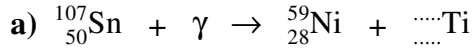


Exercises of Nuclear reactions

1) Fill in the blanks in the following nuclear equations:



Exercises of Nuclear reactions

Answers:

- 1) a) ${}_{50}^{107}\text{Sn} + \gamma \rightarrow {}_{28}^{59}\text{Ni} + {}_{22}^{48}\text{Ti}$
- c) ${}_{35}^{80}\text{Br} + {}_1^1\text{H} \rightarrow {}_{36}^{81}\text{Kr}$
- e) ${}_{11}^{24}\text{Na} \rightarrow {}_{12}^{24}\text{Mg} + {}_{-1}^0\beta$
- g) ${}_{54}^{122}\text{Xe} + {}_1^1\text{H} \rightarrow {}_{17}^{35}\text{Cl} + {}_{38}^{88}\text{Sr}$
- i) ${}_{56}^{124}\text{Ba} + {}_{-1}^0\beta \rightarrow {}_{44}^{101}\text{Ru} + {}_{11}^{23}\text{Na}$
- k) ${}_{28}^{59}\text{Ni} + {}_0^1\text{n} \rightarrow {}_{28}^{60}\text{Ni}$
- m) ${}_{23}^{51}\text{V} + {}_2^4\text{He} \rightarrow {}_{25}^{55}\text{Mn}$
- o) ${}_{17}^{34}\text{Cl} + {}_0^1\text{n} \rightarrow {}_{11}^{23}\text{Na} + {}_6^{12}\text{C}$
- q) ${}_{35}^{80}\text{Br} + {}_7^{14}\text{N} \rightarrow {}_{40}^{90}\text{Zr} + {}_2^4\text{He}$
- s) ${}_{17}^{35}\text{Cl} + {}_5^{11}\text{B} \rightarrow {}_{22}^{46}\text{Ti} + \gamma$
- u) ${}_{23}^{49}\text{V} \rightarrow {}_{22}^{48}\text{Ti} + {}_1^1\text{H}$
- w) ${}_{26}^{56}\text{Fe} + {}_{-1}^0\beta \rightarrow {}_{25}^{56}\text{Mn}$
- y) ${}_{55}^{127}\text{Cs} + {}_1^1\text{H} \rightarrow {}_{18}^{40}\text{Ar} + {}_{38}^{88}\text{Sr}$
- b) ${}_{26}^{57}\text{Fe} \rightarrow {}_{26}^{56}\text{Fe} + {}_0^1\text{n}$
- d) ${}_{35}^{79}\text{Br} \rightarrow {}_{33}^{75}\text{As} + {}_2^4\text{He}$
- f) ${}_{41}^{93}\text{Nb} + {}_{22}^{48}\text{Ti} \rightarrow {}_{63}^{140}\text{Eu} + {}_0^1\text{n}$
- h) ${}_{7}^{14}\text{N} + {}_{35}^{80}\text{Br} \rightarrow {}_{40}^{90}\text{Zr} + {}_2^4\text{He}$
- j) ${}_{57}^{128}\text{La} + \gamma \rightarrow {}_{47}^{108}\text{Ag} + {}_{10}^{20}\text{Ne}$
- l) ${}_{5}^{11}\text{B} + {}_1^1\text{H} \rightarrow {}_6^{12}\text{C}$
- n) ${}_{36}^{85}\text{Kr} \rightarrow {}_{37}^{85}\text{Rb} + {}_{-1}^0\beta$
- p) ${}_{52}^{117}\text{Te} + {}_1^1\text{H} \rightarrow {}_{22}^{48}\text{Ti} + {}_{31}^{70}\text{Ga}$
- r) ${}_{39}^{81}\text{Y} + {}_{-1}^0\beta \rightarrow {}_8^{16}\text{O} + {}_{30}^{65}\text{Zn}$
- t) ${}_{29}^{65}\text{Cu} \rightarrow {}_{29}^{64}\text{Cu} + {}_0^1\text{n}$
- v) ${}_{29}^{64}\text{Cu} + {}_2^4\text{He} \rightarrow {}_{31}^{68}\text{Ga}$
- x) ${}_{27}^{59}\text{Co} + {}_{30}^{65}\text{Zn} \rightarrow {}_{57}^{123}\text{La} + {}_0^1\text{n}$
- z) ${}_{47}^{108}\text{Ag} + {}_2^4\text{He} \rightarrow {}_4^9\text{Be} + {}_{45}^{103}\text{Rh}$