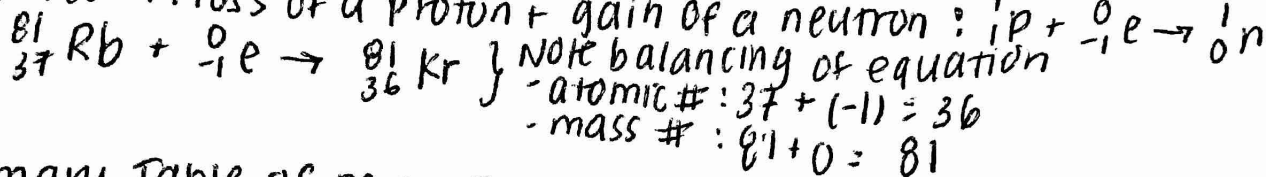


Electron (K) capture: when an electron from surrounding electron cloud is absorbed into the nucleus

- Net result: loss of a proton + gain of a neutron: ${}^1_1\text{p} + {}^0_{-1}\text{e} \rightarrow {}^1_0\text{n}$



Note balancing of equation

- atomic #: $37 + (-1) = 36$

- mass #: $81 + 0 = 81$

Summary Table of Decay Types: Table 21.3 - Types of Radioactive Decay

Type

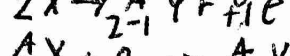
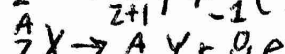
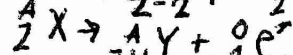
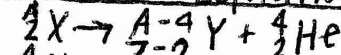
• Alpha decay

• Beta emission

• Positron emission

• Electron capture

Nuclear Equation



change in
atomic #

-2

+1

-1

-1

change in mass #

-4

unchanged

unchanged

unchanged