Beta Decay

Z

82

N

126

$^{146}_{61}\text{Pm}, \,\, \overset{...}{_{61}}\text{Pm}$

$^{98}_{43}\text{Tc}, \,\, \overset{...}{_{43}}\text{Tc}$

$^{40}_{20}\text{Ca}$

$^{40}_{19}\text{K}$

$^{40}_{18}\text{Ar}$

50

28

20

$^{14}_{7}\text{N}$

$^{10}_{5}\text{B}$

$^{6}_{3}\text{Li}$

$^{2}_{1}\text{H}$

8

2

2   8   20   28   50

82

■ stable	⊠ long lived, $> 5 \; 10^{15}$ year, double β^--decay
■ ^4_2He emission (α decay)	
■ electron emission (β^- decay)	
■ positron emission (β^+ decay) or electron capture	

P: proton emission   F: spontaneous fission

N: neutron emission   X: given data less than 50%