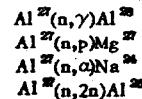


	Na 11	Mg 12	Al 13	Si 14	P 15
Z →			$A\beta^-$ 6.7M 28.9895 β^- 2.5	Si 30 3.05 29.9832 $\sigma = 0.116$	P 31 100 30.9843 $\sigma = 0.23$ $\frac{1}{2}$
16			▲ $A\beta\gamma$ 10.2M 26.9928 β^- 1.8 γ 1.0	● $A\beta\gamma$ 2.4M 27.9903 β^- 2.75 γ 1.82	Si 29 4.68 28.9866
15			E $\beta\gamma$ 58s β^- 3.7 γ 0.035	Mg 26 11.41 25.9898 $\sigma = 0.048$	Al 27 100 26.9899 $\sigma = 0.21$ +3.634 $\frac{5}{2}$
14			■ $A\beta\gamma$ 14.84 23.9975 β^- 1.39 σ 1.38, 2.76	Mg 25 10.18 24.9938	Al 28 92.27 27.9866
13			Na 23 100 22.99618 $\sigma = 0.63$ +2.217 $\frac{3}{2}$	Mg 24 78.41 23.9924	Si 28 4.6s 28.9919 β^+ 3.63
12					
N					

Typical neutron reactions on Al²⁷:

KEY TO SEGRE CHART (AECD 2111)

Element mass number	Class, type radiation
Per cent abundance	Half-life
Mass	Mass
Slow neutron capture	Emitted radiations,
Magnetic moment, spin	energy in Mev
STABLE	RADIOACTIVE
<u>Classification:</u>	<u>Type Radiation:</u>
A Isotope certain (A and Z certain)	β^- Negative beta particle
B Isotope probable, element certain	β^+ Positive beta particle
C One of few isotopes, element certain	γ Gamma ray
D Element certain	e^- Internal conversion electron
E Element probable	K Electron capture
F Insufficient evidence	IT Isometric transition
	σ Slow neutron capture cross section in barns

Figure 13. Segre chart near Al²⁷.

2-93-2