

## (8) Applications – X nuclei in bioinorganic chemistry and biochemistry

Metals in biology – spin  $I = 1/2$

- Fe-57 (diamagnetic in low-spin  $\text{Fe}^{2+}$ , e.g. cytochrome)
- Tl-205 (mimicking  $\text{K}^+$  &  $\text{Na}^+$  binding sites)
- Hg-199 (substitute for Zn-binding metalloproteins)
- Cd-113 (most used nucleus)