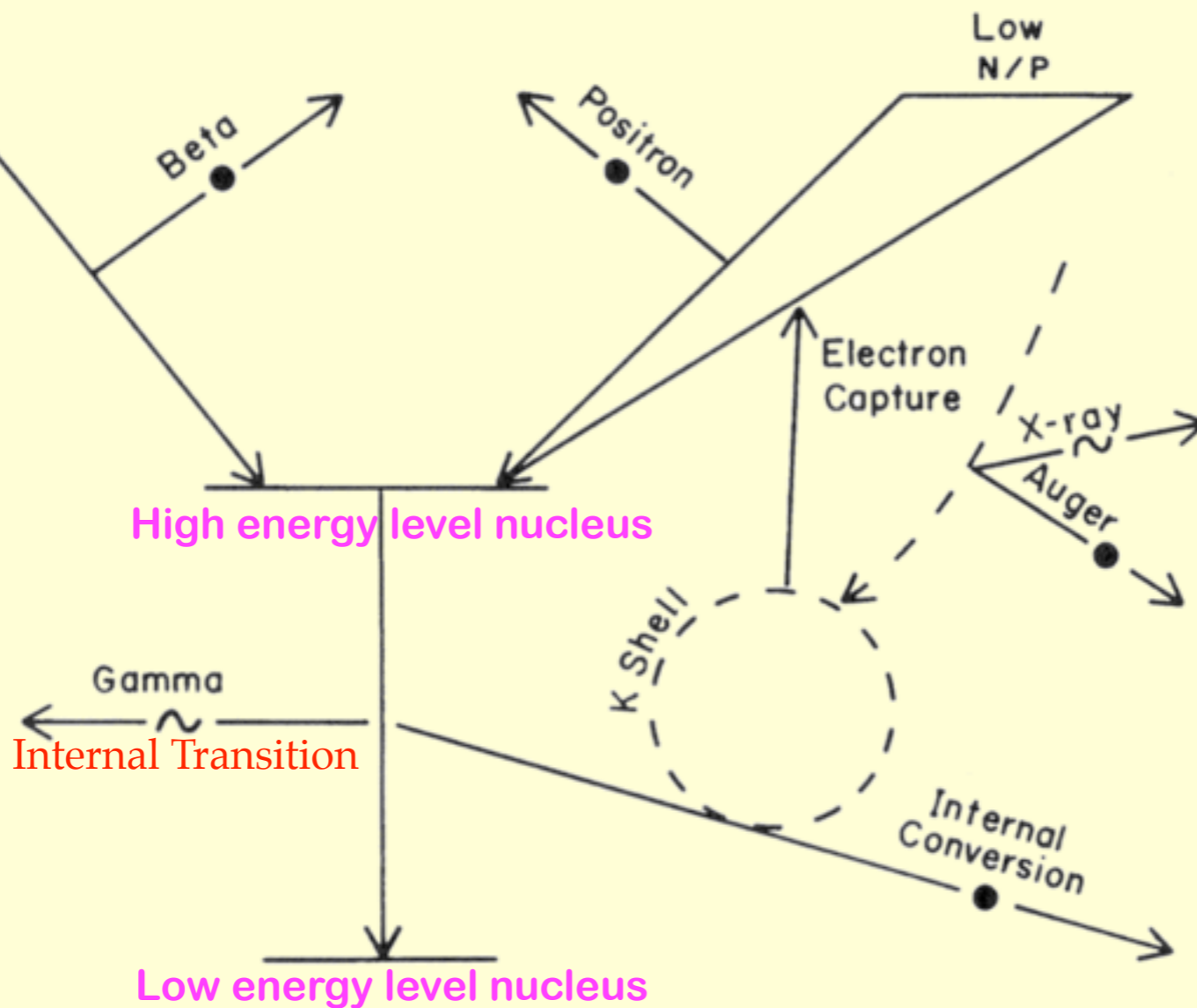


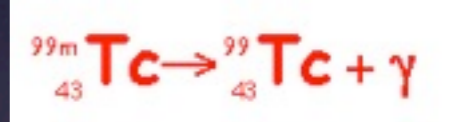
Weak Force: Gamma Radioactivity



Ask Mish



- An **excited NUCLEUS** (in a high state energy level) can lose excess energy and become stable (in a lower state energy). Nucleus becomes excited e.g. after **alfa and beta radiation**.
- There are 2 ways the excess energy is given away:
- **DIRECT** in the form of **GAMMA radiation**, process known as **INTERNAL TRANSITION**.
- E.g. : $Tc^{99m} \rightarrow Tc^{99}$. Tc^{99m} is the most used isotope in medicine.



- **INDIRECT**: energy from nucleus is given to a **K shell electron** which usually is ejected. Another neighboring e^- is taking the empty place and an **X RAY** is emitted when e^- changes orbital. The process is known as **INTERNAL CONVERSION**.

