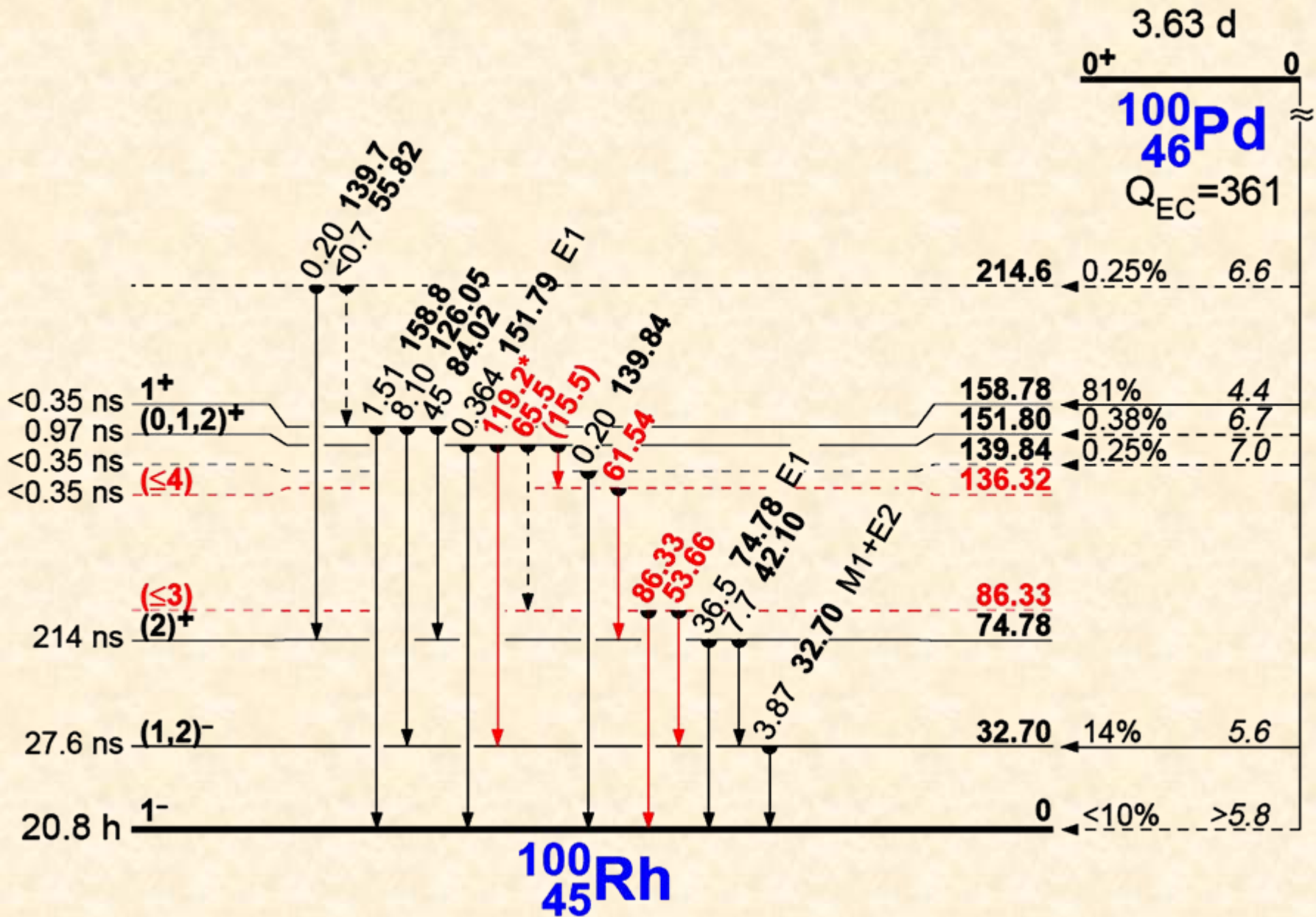
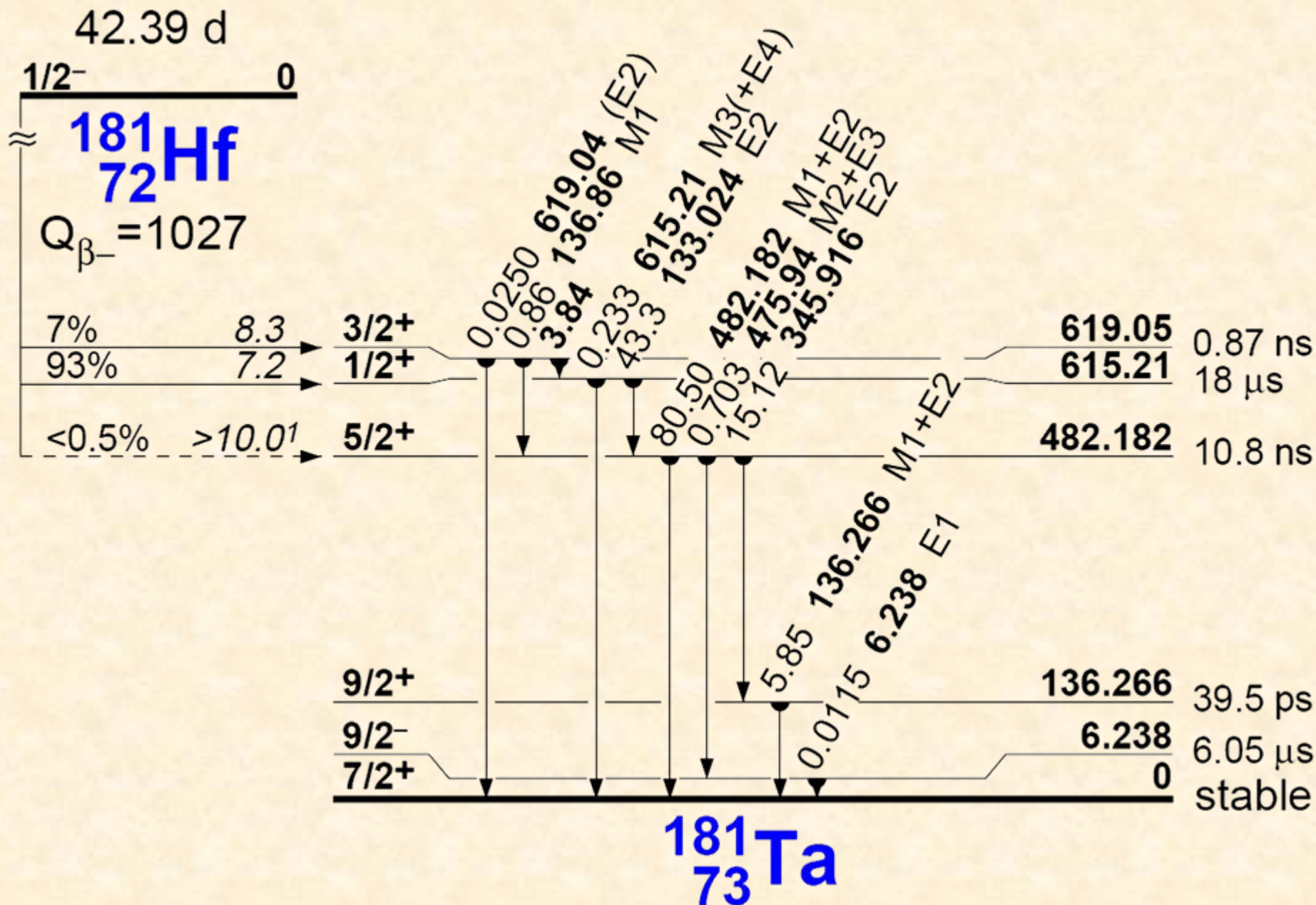


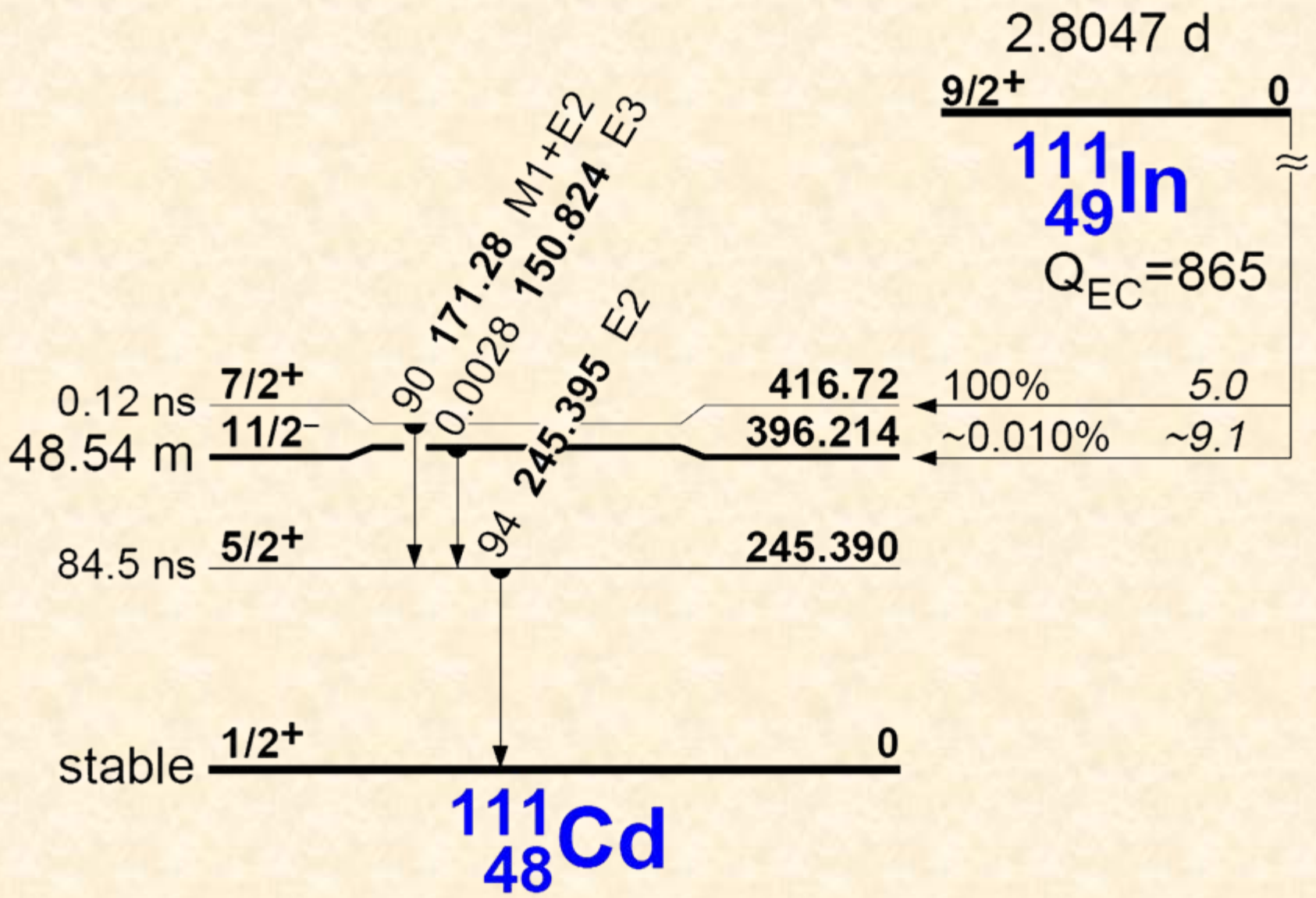
Perturbed Angular Correlation (PAC)

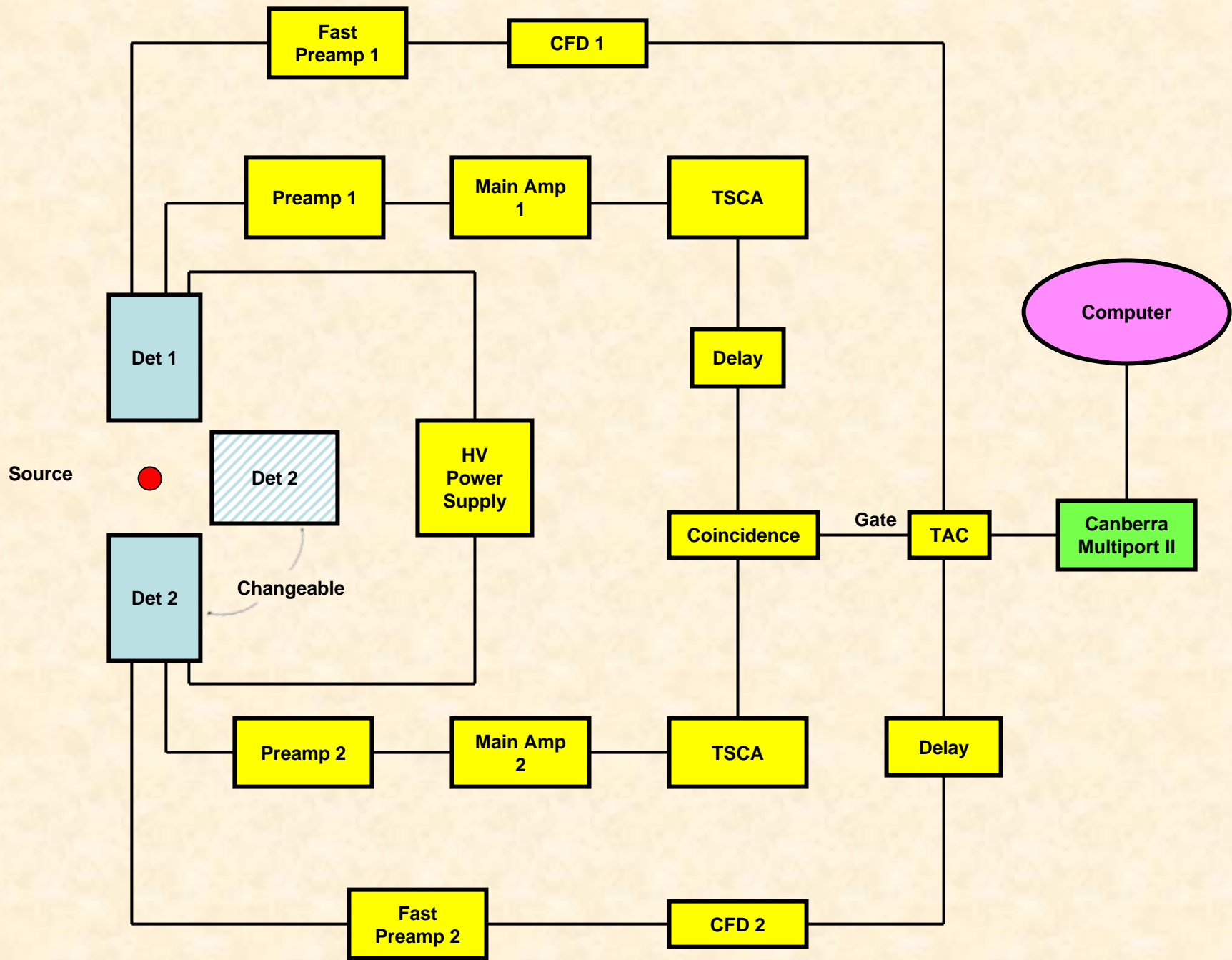
Perturbed Angular Correlation (PAC)

Applying the method of perturbed $\gamma\gamma$ -angular correlation (PAC) one measures in contrast to the Mößbauer effect not an energetic shift of a γ -line which characterizes the state of the probe, but one measures the time variable γ -angular emission characteristic. One can also say that the γ -angular correlation distribution rotates or precesses like the fire of a lighthouse. The cause for this effect is the hyperfine interaction of a nucleus in an excited state which has a finite lifetime, long enough, that the precession can work. Precondition for this effect is the anisotropic emission of γ 's from that specific level. The corresponding nucleus must be polarized or at least aligned, which means the M-sublevels differ in their population probability. The measurement of PAC requires the preparation of specific probes and the application of very fast timing measurement methods.









Perturbed Angular Correlation (PAC) : Required Knowledge

- Gam
- Tun
- Comp
- Gei
- Comp
- Int
- Bet
- TRI
- Principles of
- Principles of
- What ?
- What?
- Tech
- Comp
- Principles of

Perturbed Angular Correlation (PAC) : Tasks and Goals

- **Set-up**
- **Produce**
- **Set-up**
- **Determine**
- **Determine**
- **Determine energy**
- **Determine the**

- **Measure energy**
- **Determine**
- **Compare energy**

WARNINGS

- **Be careful.**
- **Shut down**
- **Never touch**
- **Remove source after measurement**

Oszillation und Approximation

