Fortgeschrittenen Praktikum II

Moessbauer effect

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1 physical principles

1.1 Gamma Decay and Gamma radiation

Nuclei in excited states can spontaneously transition to lower energy states by emitting a photon (spontaneous emission) or by transferring their energy directly to a shell electron (inner conversion). The Inverse is also possible: if a nucleus is hit by photon that carries the amount energy of a nuclear transition it can be absorbed. The nucleus enters the excited state.

1.2 Interaction of Gamma radiation with matter

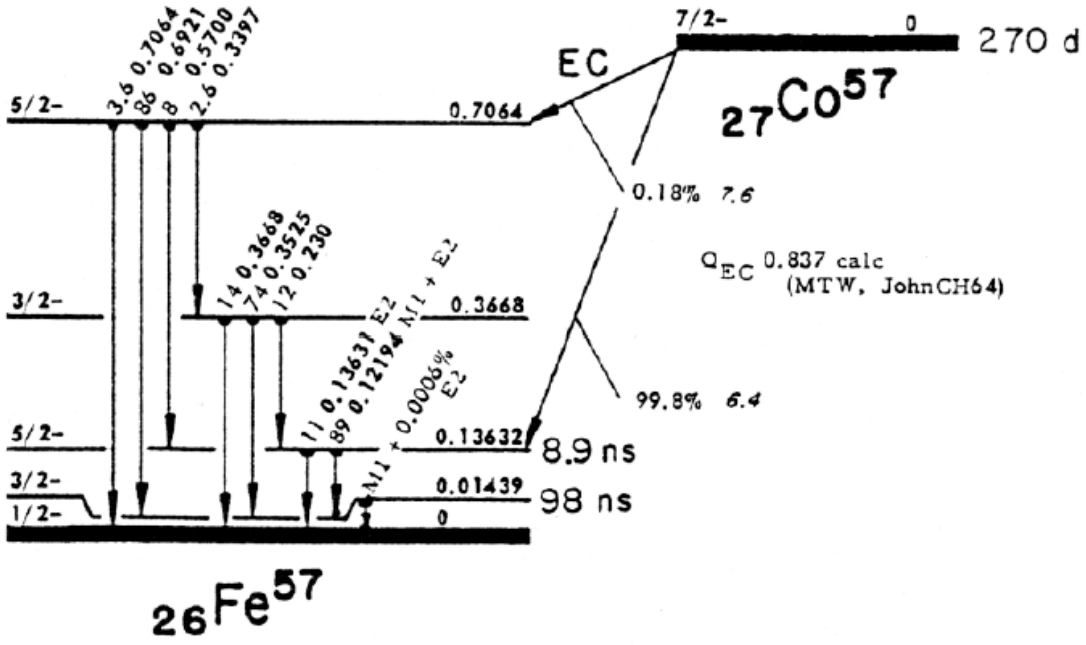

Figure 1.1: decay serie of Cobalt-57

1.3 Moessbauer effect

2 References

3 References