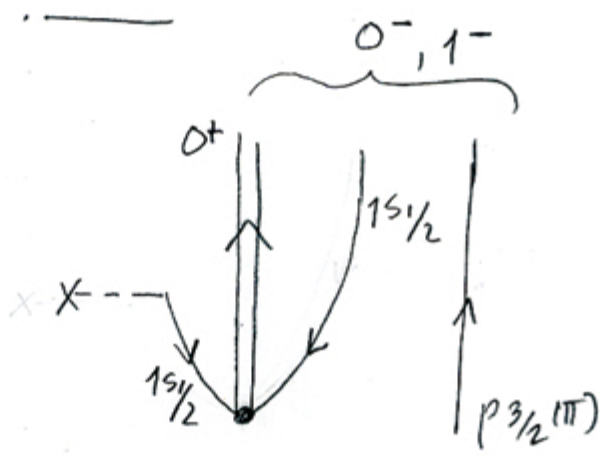
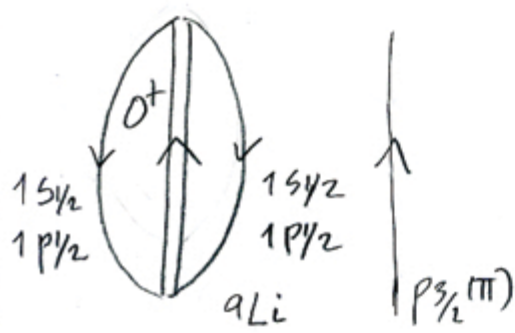
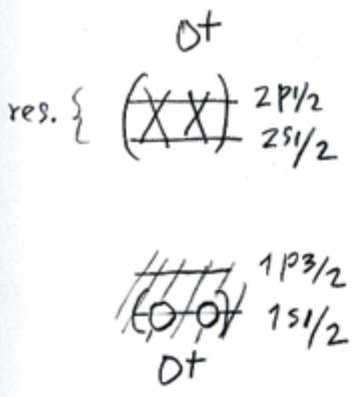


$$^{11}\text{Li}(gs; 3/2^-) (p, d) ^9\text{Li}((1^- \otimes p_{3/2}(\pi)) J_{mult}^+) + n$$



$$^9\text{Li}(d, p) ^{10}\text{Li}(((0^+ \otimes 1s_{1/2}) \otimes p_{3/2}(\pi)); 0^-, 1^-)$$



Of notice that the final (many-body) state, may display a sharper energy (longer lifetime) than eventually the state  $2s_{1/2}$  (originating from the continuum  $1s_{1/2}$  state)

The coexistent  $0^+$  state of  $^{16}\text{O}$  may be useful as analogy (Federman, Talmi).