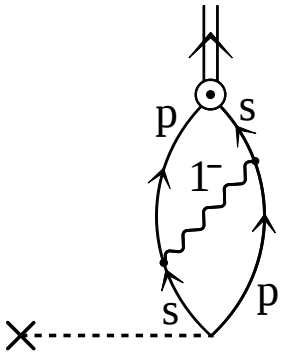
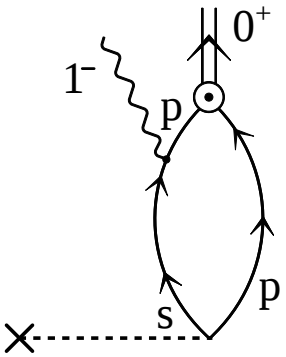
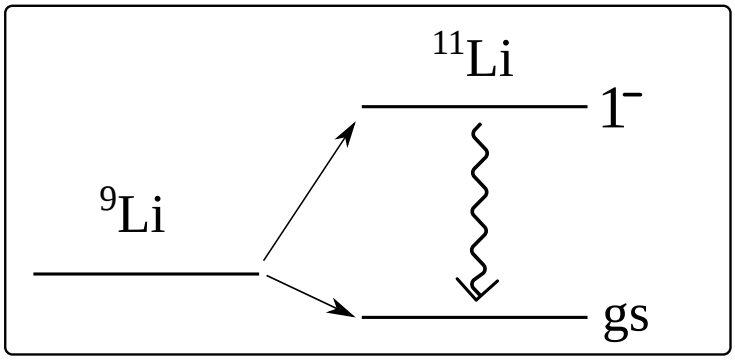




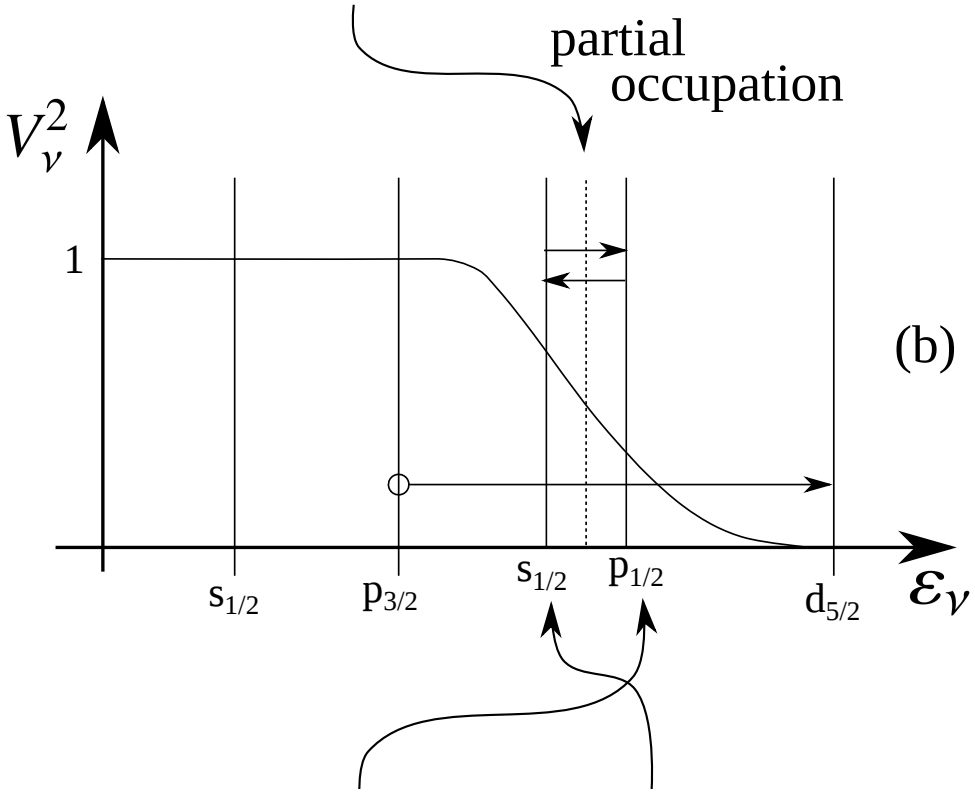
(c)



^{9}Li (t,p) ^{11}Li (1^-)

eventually γ -coincidence

$$|0\rangle_\nu = |0\rangle + 0.7|(p_{1/2}, s_{1/2})_{1^-} \otimes 1^-; 0\rangle + 0.1|(s_{1/2}, d_{5/2})_{2^+} \otimes 2^+; 0\rangle$$



$$|0\rangle = 0.55|p_{1/2}^2\rangle + 0.45|s_{1/2}^2\rangle + 0.04|d_{5/2}^2\rangle$$

$$|1^-, \text{pigmy}\rangle = \alpha\,\Gamma^+_{\text{pigmy}}|\text{halo}\rangle + \beta\,\Gamma^+_{\text{GDR}}|\text{core}\rangle$$

(a)

$\alpha^2 \gg \beta^2$

	$1p_{1/2}^{-1}2s_{1/2}$	$1p_{1/2}^{-1}3s_{1/2}$	$1p_{1/2}^{-1}4s_{1/2}$	$1p_{1/2}^{-1}1d_{3/2}$	$1p_{3/2}^{-1}5d_{5/2}$	$1p_{3/2}^{-1}6d_{5/2}$	$1p_{3/2}^{-1}7d_{5/2}$
X	0.847	-0.335	0.244	0.165	0.197	0.201	0.157
Y	0.088	0.060	0.088	0.008	0.165	0.173	0.138

8% EWSR

$E_{1^-} \approx 0.7$ MeV