$^{11}\text{Li}(p,p)^{11}\text{Li}$

elastic scattering

(a)

(b)

neutron pair halo

particle-vibration coupling vertex

particle-pair vibration coupling vertex

v_{np} proton-neutron int.

recoil mode

neutron
proton } bound

2^+ ^{9}Li core quadr. vibr. mode

1^- ^{11}Li giant dipole pygmy resonance mode

particle-recoil mode coupling vertex (PRCV)

deuteron continuum
proton continuum
monopole interaction