## $^7$Li(e,e'),(e,ep)    2002Ti10,1974Aj01

### History

| Type | Author | Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | Hu, Tilley, Kelley, Godwin et al. | NP A708,3 (2002) | 23-Aug-2001 |

1965Ch11: $^7$Li(e,e') E=3 MeV, measured $\sigma(E_{e'})$.

1969Hu05: $^7$Li(e,e') E=60-130 MeV, measured relative $\sigma(E_{e'}, \theta)$, deduced form factors.

1971Va20: $^7$Li(e,e),(e,e') E=25-90 MeV, measured $\sigma(E, \theta= 90\text{-}150°)$. $^7$Li deduced parameters of nuclear magnetization, charge distribution.

1973An31: $^7$Li(e,e'p) E=1200 MeV, measured $\sigma(E_P,\theta)$, pe'$(\theta)$. $^7$Li deduced wavefunction.

1973Hi03: $^7$Li(e,e'p) measured $\sigma(E_e,E_P)$.

1973Ku19: $^7$Li(e,e') E=1184 MeV, measured $\sigma(\theta)$.

1978Na05: $^7$Li(e,ep) E=700 MeV, measured $\sigma(E_P,\theta(P))$, deduced proton spectral functions. DWIA calculation.

1980Ti05: $^7$Li(e,e') E=450-1096 MeV, measured $\sigma(\theta,E(e'))$, longitudinal, transverse components.

1982Bu09: $^7$Li(e,e') E=40-74 MeV, measured $\sigma(\theta)$, transverse form factors. $^7$Li deduced M1 transition $\Gamma$.

1983Li07: $^7$Li(e,e),(e,e') E=90-300 MeV, measured M1, M3, E2 form factors. Shell model interpretation.

1984Do16: $^7$Li(e,e) E=190 MeV, measured $\sigma(\theta=180°)$, $^7$Li(e,e') E≤140 MeV, measured transverse form factors.

1989Li09: $^7$Li(e,e),(e,e') E=80-680 MeV, measured longitudinal, transverse form factors.

1990Li21: $^7$Li(e,e') E=80-680 MeV, measured electromagnetic form factors, deduced multi-nucleon degrees of freedom role.

1996Bu22: $^7$Li(e,e'X) E=104-262 MeV, measured electron spectra following disintegration. Sum rule analysis.

### $^7$Li Levels

| E(level) | $J^\pi$ | $T_{1/2}$ | Comments |
|---|---|---|---|
| 0 | | | |
| 0.48×10$^3$ | 1/2$^-$ | | T=1/2; $\Gamma_{\gamma0}$=6.30×10$^{-3}$ eV $31$ |
| 4.63×10$^3$ $5$ | 7/2$^-$ | | T=1/2 |
| 6.6×10$^3$ $1$ | 5/2$^-$ | 880 keV $20$ | T=1/2 |
| 7.50×10$^3$ $8$ | 5/2$^-$ | | T=1/2; $\Gamma_{\gamma0}$=0.6 eV $3$ |
| 11.25×10$^3$ | 3/2$^-$ | 0.20 MeV $10$ | T=3/2; $\Gamma_{\gamma0}$=1.3 eV $4$ |