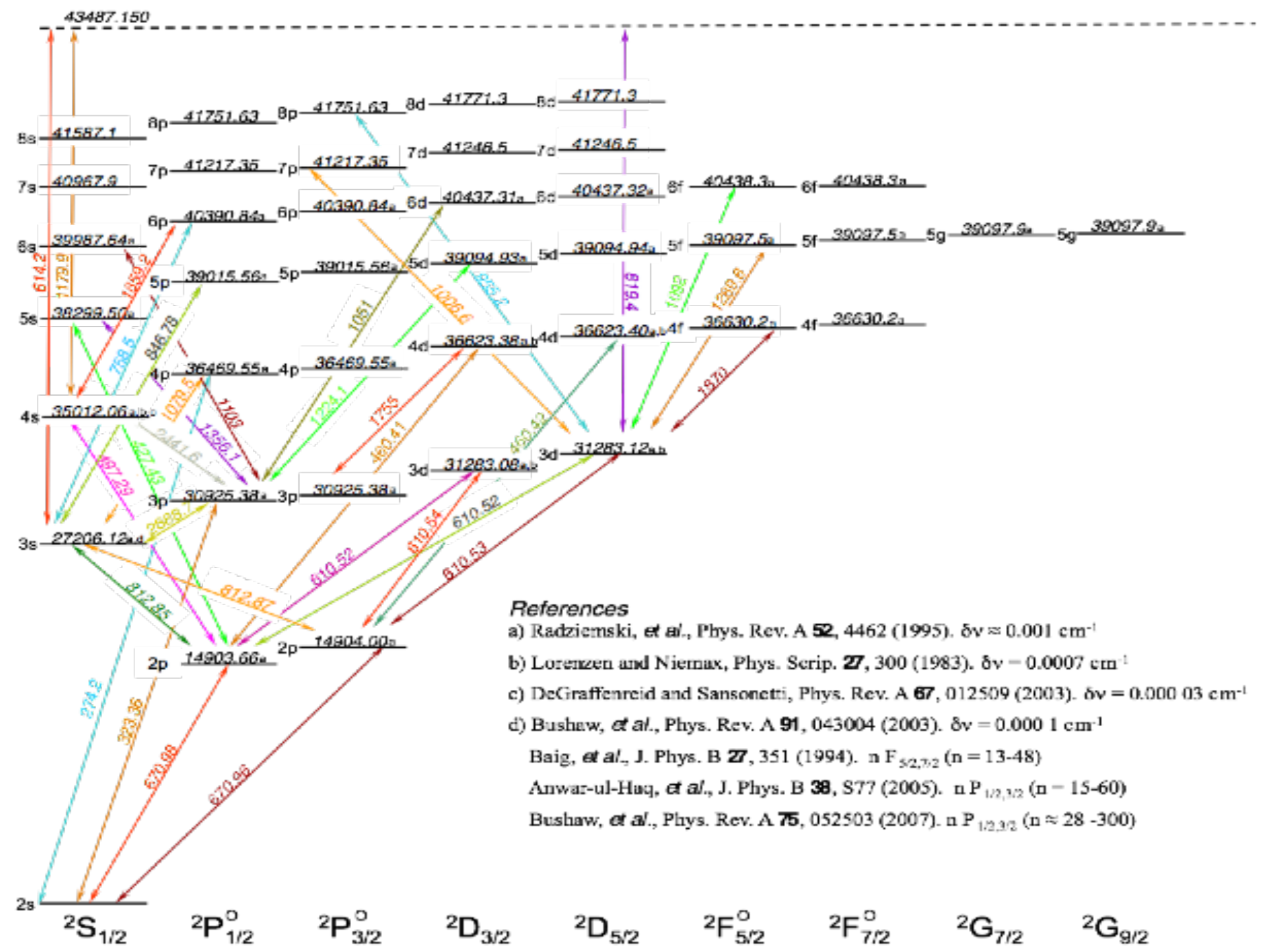


References

a) Radziemski, *et al.*, Phys. Rev. A **52**, 4462 (1995). $\delta\nu \approx 0.001$ cm^{-1}

b) Lorenzen and Niemax, Phys. Scrip. **27**, 300 (1983). $\delta\nu = 0.0007$ cm^{-1}

c) DeGraffenreid and Sansonetti, Phys. Rev. A **67**, 012509 (2003). $\delta\nu = 0.000\,03$ cm^{-1}

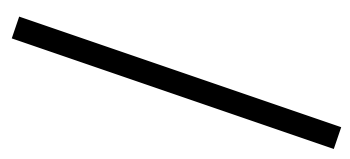
d) Bushaw, *et al.*, Phys. Rev. A **91**, 043004 (2003). $\delta\nu = 0.000\,1$ cm^{-1}

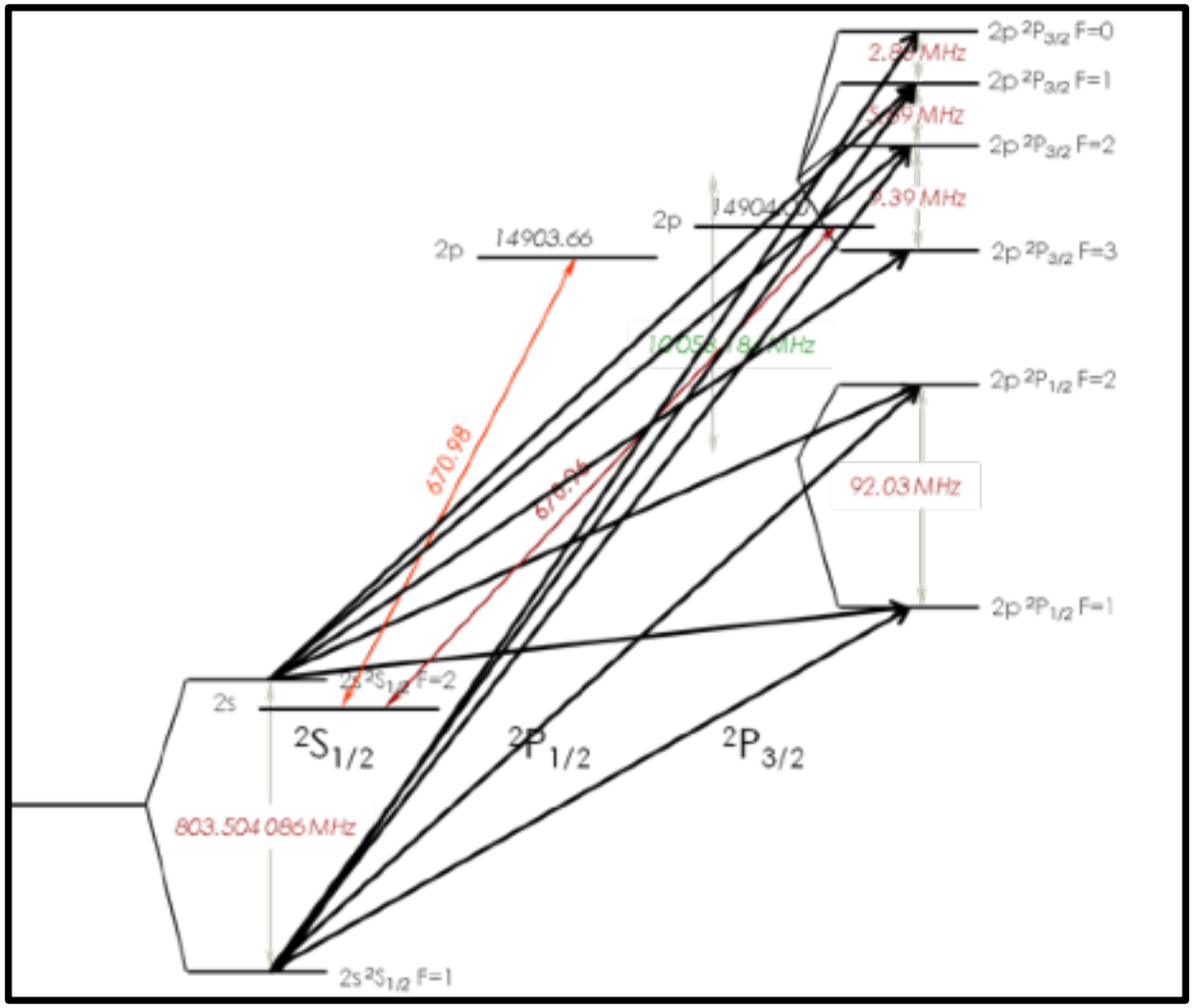
Baig, *et al.*, J. Phys. B **27**, 351 (1994). n $F_{5/2,7/2}$ (n = 13-48)

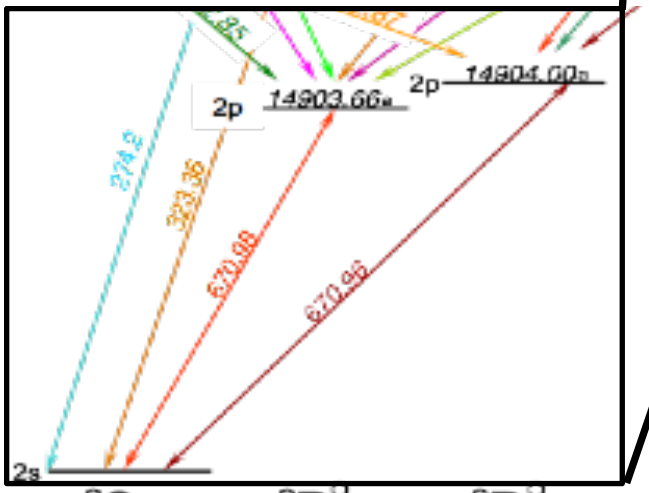
Anwar-ul-Haq, *et al.*, J. Phys. B **38**, S77 (2005). n $P_{1/2,3/2}$ (n = 15-60)

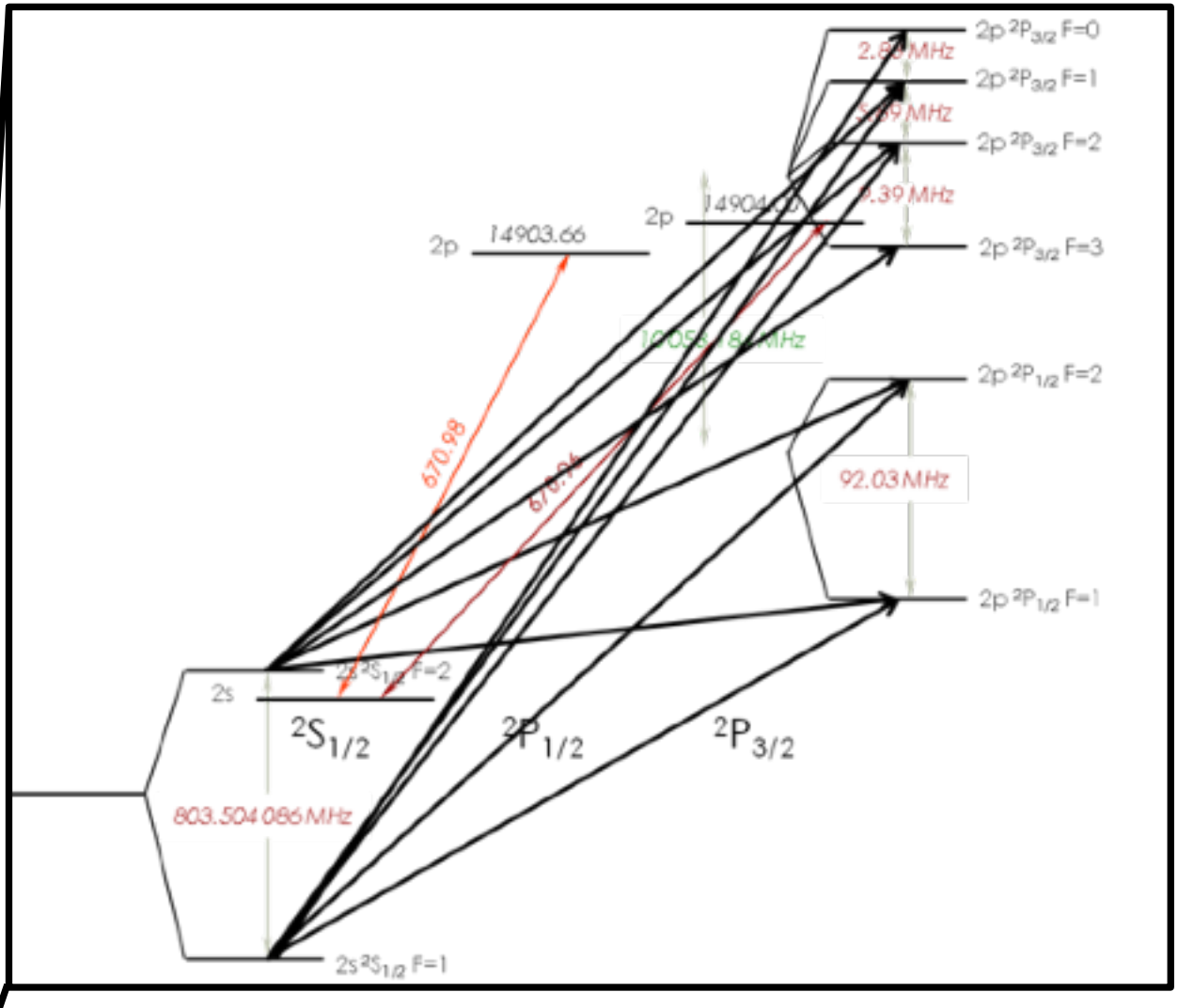
Bushaw, *et al.*, Phys. Rev. A **75**, 052503 (2007). n $P_{1/2,3/2}$ (n ≈ 28 -300)

Energy level diagram for lithium




2p $^2P_{3/2}$ F=0
2.60 MHz
2p $^2P_{3/2}$ F=1
3.39 MHz
2p $^2P_{3/2}$ F=2
3.39 MHz
2p $^2P_{3/2}$ F=3
2p 14904.00
2p 14903.66
100.84 MHz
2p $^2P_{1/2}$ F=2
92.03 MHz
2p $^2P_{1/2}$ F=1
670.98
670.94
2s $^2S_{1/2}$ F=2
2s
$^2S_{1/2}$
$^2P_{1/2}$
$^2P_{3/2}$
803.504 086 MHz
2s $^2S_{1/2}$ F=1





$^2S_{1/2}$ $^2P^o_{1/2}$ $^2P^o_{3/2}$ $^2D_{3/2}$ $^2D_{5/2}$ $^2F^o_{5/2}$ $^2F^o_{7/2}$ $^2G_{7/2}$ $^2G_{9/2}$

Theory has small error bars

^{7}Li D1 Hyperfine Structure Splitting