

TABLE IX: Comparison of theoretical and experimental transition energies. Units are MHz for He and  $\text{Li}^+$  and  $\text{cm}^{-1}$  for other ions. Results by Drake are from 2005 for He [31], from 1994 for  $\text{Li}^+$  [37], and from 1988 for other ions [5].

$Z$	This work	Drake	Experiment	Reference
$2^3P_0-2^3S_1$ transition:				
2	276 764 094.7(3.0)	276 764 099(17)	276 764 094.678 8(21)	[1]
3	546 560 686(32)	546 560 627	546 560 683.07(42)	[37]
4	26 864.6114(47)	26 864.64(3)	26 864.612 0(4)	[38]
5	35 393.628(14)	35 393.70(8)	35 393.627(13)	[39]
8	60 978.85(14)	60 979.6(5)	60 978.44(52)	[40]
10	78 263.98(39)	78 265.9(1.2)	78 265.0(1.2)	[40]
$2^3P_1-2^3S_1$ transition:				
2	276 734 477.7(3.0)	276 734 476(17)	276 764 477.724 2(20)	[1]
3	546 404 980(31)	546 404 885	546 404 978.80(51)	[37]
4	26 853.0534(47)	26 852.04(3)	26 853.053 4(3)	[38]
5	35 377.429(14)	35 377.40(8)	35 377.424(13)	[39]
8	61 037.65(14)	61 037.7(5)	61 037.62(93)	[40]
$2^3P_2-2^3S_1$ transition:				
2	276 732 186.1(2.9)	276 732 183(17)	276 732 186.593 (15)	[1]
3	546 467 655(31)	546 467 553	546 467 657.21(44)	[37]
4	26 867.9450(47)	26 867.92(3)	26 867.948 4(3)	[38]
5	35 430.088(14)	35 430.02(8)	35 430.084(9)	[39]
8	61 589.21(14)	61 589.0(5)	61 589.70(53)	[40]
10	80 122.3(4)	80 121.6(1.2)	80 121.53(64)	[41]
$2^1P_1-2^1S_0$ transition:				
4	16 276.775(4)	16 276.77(3)	16 276.774(9)	[42]
$2^3P_1-2^1S_0$ transition:				
7	986.36(7)	986.6(3)	986.3180(7)	[43]