

Data for constraints on variation of α via rf spectroscopy of dysprosium, 2010-2012

(Dated: February 13, 2014)

Numerical values for radio-frequency (rf) transition frequencies between excited states in dysprosium acquired between 2010 and 2012. Data are presented for ^{164}Dy and ^{162}Dy .

Measured frequencies for the radio-frequency transitions between opposite-parity excited states A and B in atomic dysprosium are listed below for ^{164}Dy and ^{162}Dy . The measurements were performed over a two year span. The magnitudes of the frequencies are given. More information about this configuration of levels can be found in D. Budker *et al.*, Phys. Rev. A, **50**, 132-143 (1994). The 1σ uncertainties are statistical uncertainties and systematic uncertainties added in quadrature. More information about the use of these data can be found in N. Leeper *et al.*, Phys. Rev. Lett., **111**(5), 050401 (2013) or arXiv:1303.2747.

Date	$ \nu_{164} - 753, 513, 705 $ (Hz) 1σ unc.	$ \nu_{164} - 234, 661, 105 $ (Hz) 1σ unc.		
26-May-2010	1.56	1.02	0.86	1.03
14-Jul-2010	1.17	1.03	-0.25	1.04
30-Jul-2010	0.30	1.04	0.24	1.04
01-Sep-2010	1.49	1.10	0.6	1.08
27-Oct-2010	-0.36	1.12	1.54	1.12
23-Nov-2010	-1.63	1.03	1.16	1.03
29-May-2011	0.00	0.57	0.94	0.59
13-Jun-2011	0.11	0.62	0.55	0.59
06-Jul-2011	0.38	0.59	0.59	0.62
24-Aug-2011	1.30	0.28	0.51	0.25
07-Dec-2011	0.74	0.47	0.09	0.43
25-Apr-2012	0.72	0.41	0.47	0.43
19-Jul-2012	2.20	0.43	1.10	0.50
19-Oct-2012	1.11	0.45	1.76	0.51