

$$\Delta\lambda = g_{eff}4.668 \times 10^{-8}\lambda^2 B \quad (1)$$

$$g_{eff} = \frac{\alpha}{46.68\lambda^2 B} \quad (2)$$

where λ is the slope given by the linear fit.

Allowed Transitions for $7s6s\ ^3S_1$ to $6p6s\ ^3P_0$				
m'_j	m_j	$\Delta\mu$	Polarization	$g_{eff} = \Delta h\nu/\mu_b B$
1	1			
0	1			
-1	1			
1	0			
0	0			
-1	0			
1	-1			
0	-1			
-1	-1			

Table 1: Allowed Transitions for $7s6s\ ^3S_1$ to $6p6s\ ^3P_0$

Allowed Transitions for $7s6s\ ^3S_1$ to $6p6s\ ^3P_1$				
m'_j	m_j	$\Delta\mu$	Polarization	$g_{eff} = \Delta h\nu/\mu_b B$
1	1	0	π	$1/2$
0	1	1	σ	$3/2$
-1	1	2		
1	0	-1	σ	-2
0	0	0	π	0
-1	0	1	σ	2
1	-1	-2		
0	-1	-1	σ	$-3/2$
-1	-1	0	π	$1/2$

Table 2: Allowed Transitions for $7s6s\ ^3S_1$ to $6p6s\ ^3P_1$

Allowed Transitions for $7s6s\ ^3S_1$ to $6p6s\ ^3P_2$				
m'_j	m_j	$\Delta\mu$	Polarization	$g_{eff} = \Delta h\nu/\mu_b B$
1	1			
0	1			
-1	1			
1	0			
0	0			
-1	0			
1	-1			
0	-1			
-1	-1			

Table 3: Allowed Transitions for $7s6s\ ^3S_1$ to $6p6s\ ^3P_2$

Freddy Hg 404.7 nm

Drinking Mercury 435.8 nm

Mercury Rev 546.1 nm