(e) $\Delta t \sim \frac{W}{P_{max}} = 12.8$ ns; If one uses Fig. 9.10, the peak is 0.8 at T = 2.4 and the FWHM interval is $\Delta T = 3.8 - 1.7 = 2.1 = \Delta t/\tau_p$; $\therefore \Delta t = 2.1 \times 5.15$ ns = 10.8 ns

(f) Vary T from $0 \rightarrow 1$, plot the output ; $n_i = 6.3 \times 10^{+19}$ atoms for all cases.

$T_2 \Rightarrow$	0.1	0.3	0.5	0.7	0.75
$R_2 \Rightarrow$	0.9	0.7	0.5	0.3	0.25
$\Delta N(cm^{-3})$	4.11^{+17}	1.08^{+18}	1.95^{+18}	3.29^{+18}	3.77^{+18}
$1/\tau_p(s^{-1})$	7.41^{+7}	1.93^{+8}	3.52^{+8}	5.94^{+8}	6.8^{+8}
n_{th}(atoms)	6.16^{+18}	1.61^{+19}	2.93^{+19}	4.94^{+19}	5.66^{+19}
P_{out}(MW)	303	603	528	130	32
n_i/n_{th}	10.2	3.91	2.15	1.28	1.11
η_x	1.0	0.98	0.81	0.38	0.176
W(Joules)	6.075	7.72	6.8	3.27	1.53