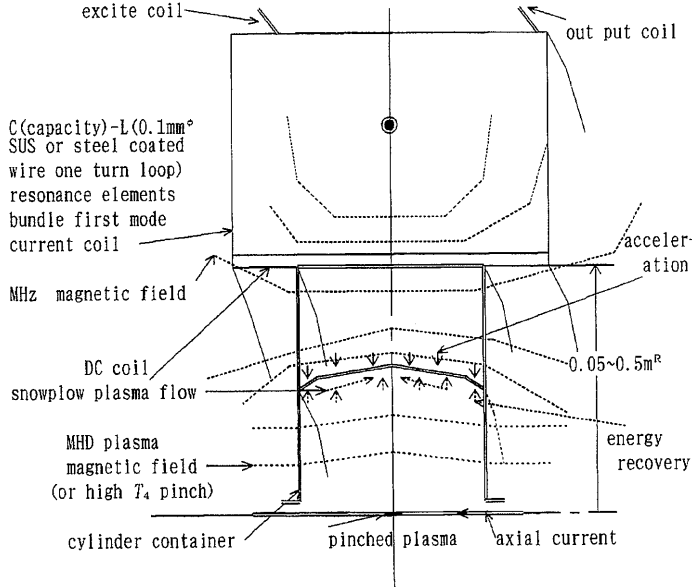


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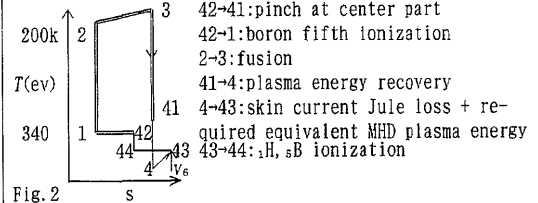
MHz theta pinches Carnot's cycle Bp engine theory

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By Mz C(capacity)-L(0.1mm² SUS or steel coated one turn loop) resonance elements bundle coil, 200kev acceleration is quit easy. During plasma theta acceleration, snowplow plasma is recombined with h ν radiation. At pinch, this neutralized particles are ionized and cool plasma. isothermal compression $n_{44} = \exp(E_{43}/T_{43}N_1)n_{43}$, E_{43} :cool energy, $T_{43}N_1$:plasma energy is made. Then gradual adiabatic compression $n_{42} = n_{44}T_{42}/T_{44}$, isothermal



compression $n_1 = \exp(E_{42}/T_{42}N_1)n_{42}$, adiabatic compression $n_2 = n_1T_2/T_1$. for $n_1 = 10^{22}/m^3$, $T_1 = 340\text{ev}$, n_2 turn out to be $10^{23}/m^3$. Electron radiation loss is enormous for too large n_2 . This is redovied by more high T_{42} or equivalent MHD energy plasma 43. Fig.2 is T-s diagram.



For $r=0.5\text{m}$ engine, Fig.1, coil current $I_c = 845,000\text{A}$, out put is $P_{out} = E\langle\sigma v\rangle n_2^2 \pi d_p I_p \Delta t f_0 = 148,000\text{kw}$ where E :Bp 8.8MeV, $\langle\sigma v\rangle: 4 \times 10^{-22} \text{m}^3/\text{s}$, $n_2: sB, 1H, 10^{25}/m^3$, $T_4 = 30\text{ev}$, d_p : pinch plasma dia. $6 \times 10^{-3}\text{m}$, pinch plasma length $I_p: 0.5\text{m}$, pinch time $\Delta t = d_p/v_6 = 3.3 \times 10^{-9}\text{sec}$, pinch velocity $v_6: 2 \times 10^6\text{m/s}$, no leak $f_0: 837,000\text{Hz}$, engine efficiency $\eta_s = 0.795$.

For $r=0.25\text{m}$ engine, $P_{out} = 2700\text{kw}$, $n_2: 10^{25}/m^3$, $d_p: 8 \times 10^{-4}\text{m}$, $\Delta t = 4.3 \times 10^{-11}\text{sec}$, $I_p: 0.25\text{m}$, $\eta_s = 0.748$, $f_0: 1,668,000\text{Hz}$

For $r=0.05\text{m}$ engine, $P_{out} = 200\text{kw}$, $n_2: 10^{25}/m^3$, $d_p: 4 \times 10^{-4}\text{m}$, $I_p: 0.05\text{m}$, $\eta_s = 0.7$, $\Delta t = 4.3 \times 10^{-12}\text{sec}$, $f_0: 8,408,000\text{Hz}$.

Wherever, whenever, whoever can make no CO₂, no radiation, 0.1 yen/kw-h, any size engine, for car, aircraft, ship, space-craft, electric power etc.. The sea contains sevral ppm sB which turn out 10^6 time energy of oil, so that the oceans can be more than oil without CO₂, without any radiation without any pollution.