TABLE 2

ELECTRIC AND MAGNETIC FIELD, WAVE, SPEED AND ENERGY FUNCTIONS FOR MASSFREE AMBIPOLAR CHARGES, EXEMPLIFIED FOR THE TC728.

CLASSICAL	AToS	TC728
ELECTRIC		
$V_{2°} = kV_{q°}$	$Wv_{2°} = \mathcal{E}/\mathbf{H} = \ell_c F_B = C_{2°} F_A$	50KV $=\int=$ $3.45 * 10^9$ m sec^{-1}
$E = V_{2°}/x$	$\mathcal{E} = Wv_{2°} /\lambda_{y1} = nF_A = Wv_2^2/\mathbf{p}_e$	$8.45 * 10^{17} sec^{-1}$
-	$\omega_H = 2\pi\mathcal{E}$	$5.365 * 10^{18}$ rad sec^{-1}
-	$\lambda_{y1} = Wv_{2°} /\mathcal{E} = C_{2°}/n = \mathbf{p}_e/Wv_{2°}$	$4.045 * 10^{-9}$ m
$\mathbf{H}$	$\mathbf{H} = \lambda_{y1}^{-1} = 2\pi\mu/\mathbf{B}_{2°MF}$	$2.472 * 10^8$ m^{-1}
-	$2\pi\mathbf{H} = 2\pi/ \lambda_{y1}$	$1.553 * 10^9$ m^{-1}
-	$r_H = \lambda_{y1}/2\pi$	$6.438 * 10^{-10}$ m
-	$a_w = \lambda_{y1} \mathcal{E}^2 = \mathcal{E}^2\mathbf{H}^{-1} = Wv_{2°} \mathcal{E}$	$2.951 * 10^{27}$ m sec^{-2}
MAGNETIC		
	$Wv_{2°} = \ell_c F_B$	
$(\upsilon_{cyclo} = \frac{qB}{2\pi m})$	$F_B = Wv_{2°}/\ell_c = \mathbf{B}_{2°MF} Wv_{2°}/2\pi =$ $= \mathbf{p}_e \mathbf{B}_{2°MF}/2\pi \lambda_{y1} = (Wv_{2°} L_{2act°})^{-1} =$ $= 4^2(\frac{Wv_{2°}^4}{C^4})(\frac{\mathcal{E}_k}{n})$	$9.556 * 10^6$ sec^{-1}
$(\omega = 2\pi r_{cyclo})$	$\omega_B = 2\pi F_B$	$6.01 * 10^7$ rad sec^{-1}
$\ell_c = 2\pi r_{coil} * N$	$\ell_c = 2\pi r_{BMF} = 2\pi r_{MF} * N = 2\pi r_{coil} * N =$ $= Wv_{2°}/F_B = c/4F_C = c/4(F_A F_B)^{0.5}$	366.2 m
$(\mathbf{B} = 2\pi\upsilon_{cyclo} * m/q)$	$\mathbf{B}_{2°MF} = 2\pi F_B/Wv_{2°} = 2\pi/\ell_c$	0.017158 m^{-1} $=\int=$ $2.484 * 10^{-3}$ gauss
$\ell_c/2\pi$	$r_{BMF} = \mathbf{B}_{2°MF}^{-1} = \ell_c/2\pi$	58.28 m
$\ell_c/2\pi N = r_{coil}$	$r_{MF} = (N * \mathbf{B}_{2°MF})^{-1} = \ell_c/2\pi N$	0.0800 m = 8 cm
-	$a_L = \ell_c F_B^2 = Wv_{2°} F_B = L_{2act°}^{-1}$	$3.340 * 10^{16}$ m sec^{-2}
$\ell_c/N = 2\pi r_{coil}$	$\ell_c/N = 2\pi r_{coil} = 2\pi r_{MF}$ = Perimeter of 1 turn	0.5026 m
$(E = qV)$	$E_\alpha = \mathbf{p}_e Wv_{2°} = \lambda_{y1} Wv_{2°}^2 =$ $= \lambda_{y1} (2\pi \mathbf{B}_{2°MF}^{-1} * F_B) (\lambda_{y1} \mathcal{E}) =$ $= \lambda_{y1} (N * 2\pi r_{MF} * F_B)(\lambda_{y1} \mathcal{E})$ In Vacuo: $E_\alpha = \mathbf{p}_e Wv_{2°} = \lambda_{y1} Wv_{2°}^2 = \lambda_{y1}^3 \mathcal{E}^2$	$4.8197 * 10^{10}$ m^3 sec^{-2} $=\int=$ $=\int=$ 50KeV
$(v = \sqrt{2E/m})$	$v = \sqrt{E_\alpha/\lambda_{y1}} = (Wv_{2°} * Wv_{2°})^{0.5} = Wv_{2°}$	$3.450 * 10^9$ m sec^{-1}
-	$a' = \sqrt{a_w * a_L}$	$9.927 * 10^{21}$ m sec^{-2}
-	$\sqrt{\mathcal{E} * F_B}$	$2.856 * 10^{12}$ sec^{-1}
-	$\sqrt{\lambda_{y1} * \ell_c}$	$1.217 * 10^{-3}$ m