

4 FRIDAY JANUARY '13

$\Phi = \eta V I$   
~~= 0.6x~~

$Q_f = \frac{V \times I \times \eta \cdot 6 \Phi_{net} f_f \sqrt{3}}{V \times 10^3 \cdot a b c_f \eta \sqrt{\pi}}$

$Q_r = \frac{6 \Phi_{net} f_r \sqrt{3}}{a b c_r \eta \sqrt{\pi}}$

$Q_f = Q_f \times \exp \left[ \frac{v^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} \right]$

$Q_r = Q_r \times \exp \left[ \frac{2^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} \right]$

JANUARY '13 SATURDAY

$e_f = 0.003 \text{ m}$   
 $c_r = 0.006 \text{ m}$   
 $b = 0.001 \text{ m}$   
 $a = 0.00305 \text{ m}$

$f_f = \frac{Q \times e_f}{c_f \times c_r} = 0.6$

$f_r = Q - f_f$   
 $f_f + f_r = 2$   
 $= 1.4$

ONDAY JANUARY '13

JANUARY '13 TUESDAY 8

Dimension.

$0.15 \times 0.15 \times 0.03 \text{ m}$

$\Phi = \eta \times V \times I$   
 $= 0.6 \times 24 \times 100$   
 $= 1440 \text{ W}$

$Q_f = \frac{6 \times Q \times f_f \sqrt{3}}{a \times b \times c_f \times \eta \sqrt{\pi}} = \frac{\text{W/m}^3}{\text{body cell}}$

$= \frac{6 \times 1440 \times 0.6 \times \sqrt{3}}{0.00305 \times 0.001 \times 0.006 \times \eta \sqrt{\pi}}$   
 $= 1.1636 \times 10^{11} \text{ W/m}^3$



9 WEDNESDAY JANUARY '13

$Q_r = \frac{6 \times \Phi_{net} \times f_r \sqrt{3}}{a \times b \times c_r \times \eta \sqrt{\pi}}$

$= \frac{6 \times 1440 \times 1.4 \times \sqrt{3}}{0.00305 \times 0.001 \times 0.006 \times \eta \sqrt{\pi}}$

$= 1.469 \times 10^{11} \text{ W/m}^3$

velocity =  $2.44 \text{ mm/s}$   
 $= 0.00244 \text{ m/s}$