

Ex 3.7

The electron beam striking the stopper deposits energy, in the form of heat.

$$Q = CAT = \left(N \right) \left(\frac{KE}{\text{electron}} \right)$$

$$N = \frac{CAT}{KE} = \frac{\left(5 \times 10^{-3} \frac{\text{cal}}{\text{°C}} \right) \left(2 \text{°C} \right)}{2000 \text{ eV}}$$

$$N = 1.3 \times 10^4 \text{ electrons}$$