

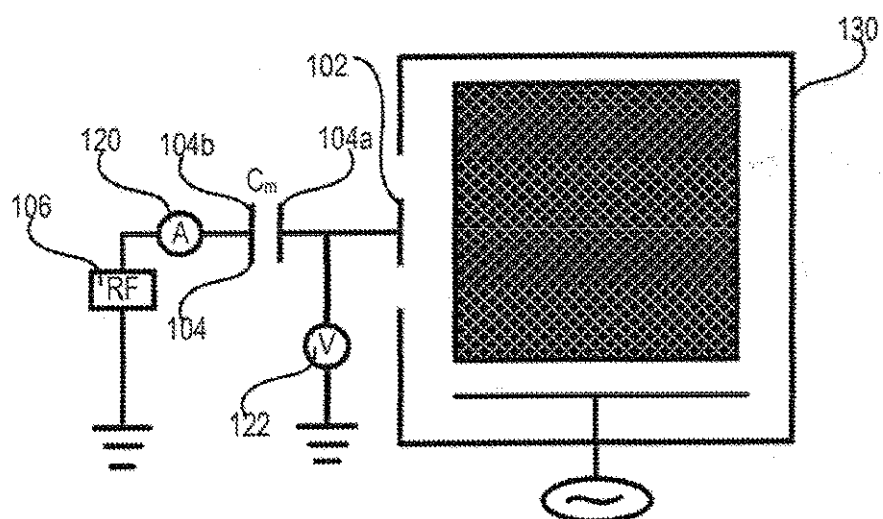


FIG. 1

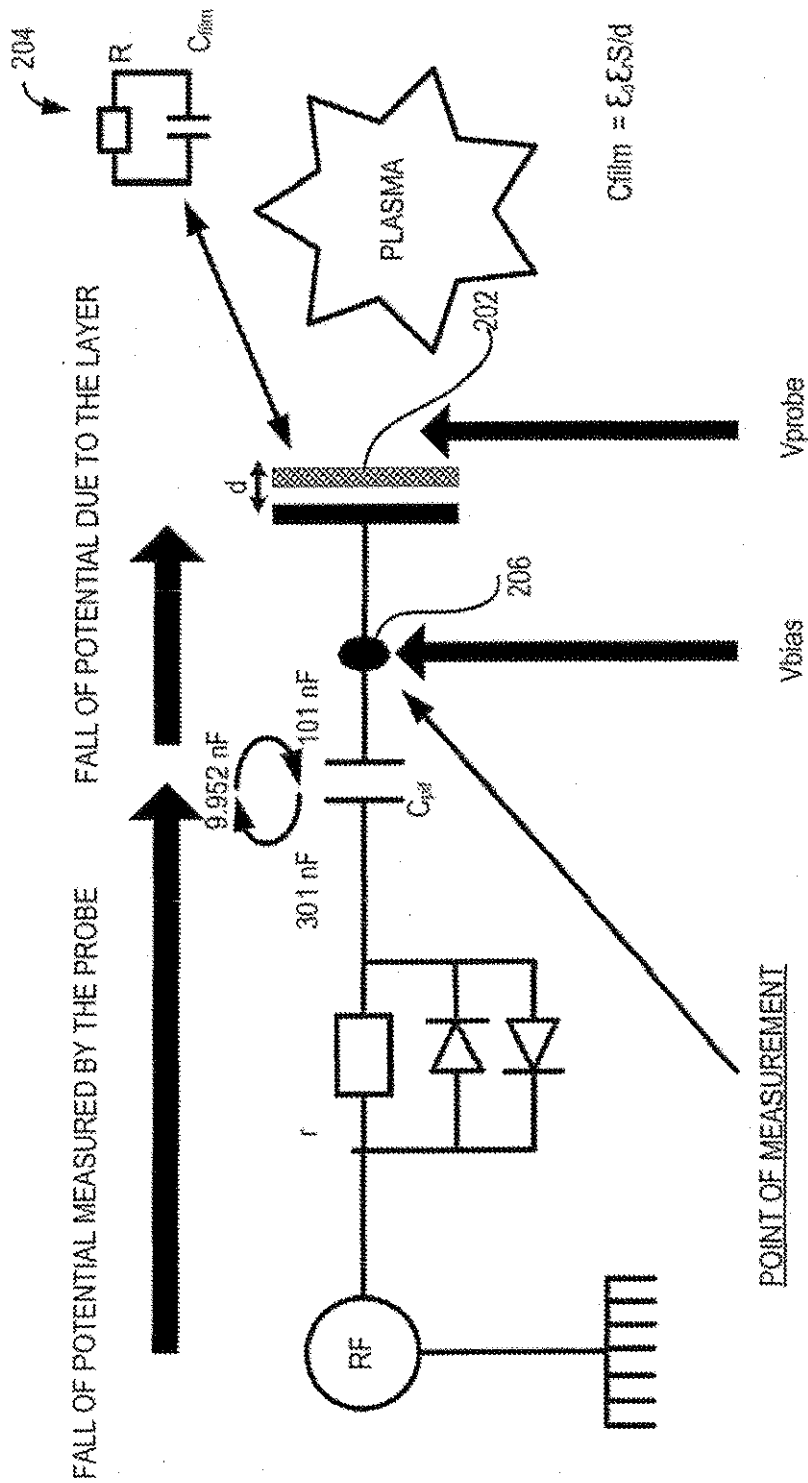
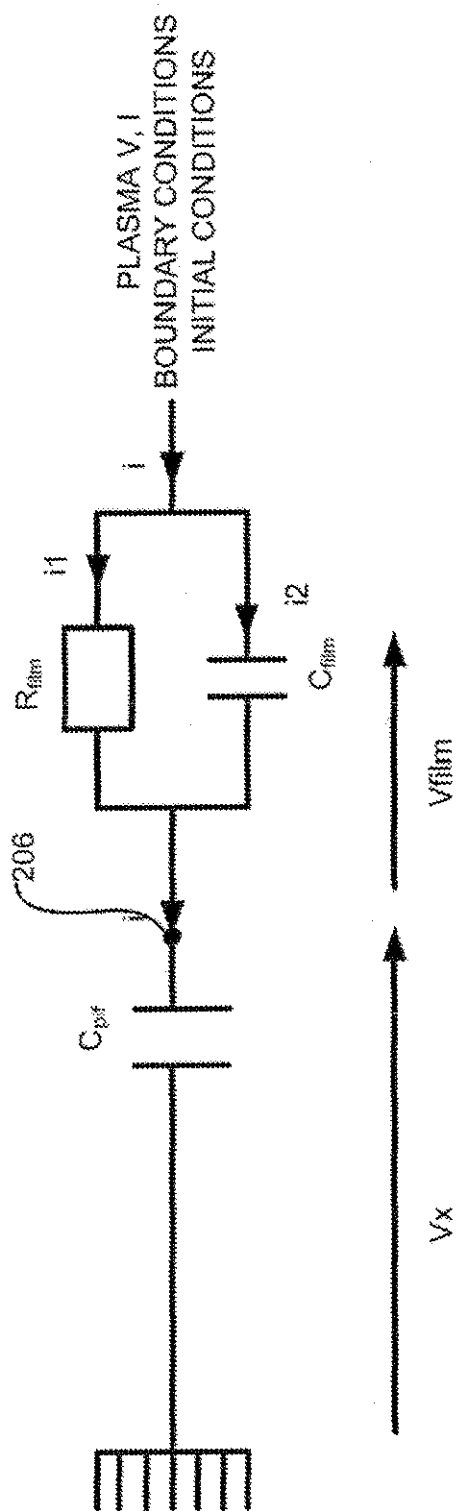


FIG. 2



$$i = i1 + i2 \text{ with } i \rightarrow I_0 \left[1 - \alpha \left(V_x + V_{\text{film}} - V_f \right) - \exp \left(\frac{V_{\text{film}} + V_x - V_f}{T_e} \right) \right]$$

FIG. 3

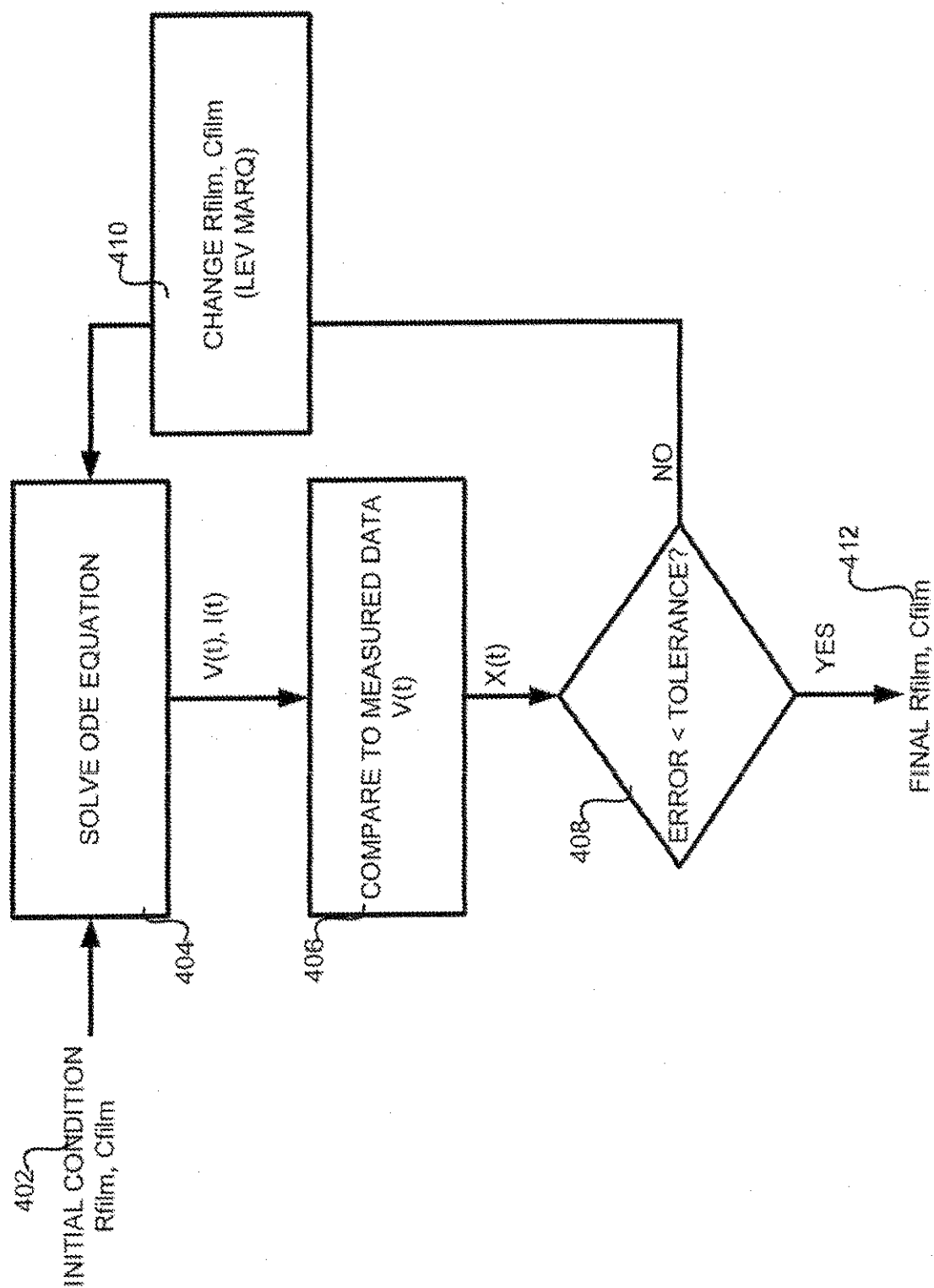


FIG. 4

$$\left\{ \begin{array}{l} C_{\text{film}} \frac{dV_{\text{film}}}{dt} = I_0 \left[1 - \alpha \left(V_x + V_{\text{film}} - V_f \right) - \exp \left(\frac{V_{\text{film}} + V_x - V_f}{T_e} \right) \right] - \frac{V_{\text{film}}}{R_{\text{film}}} \\ C_{\text{pix}} \frac{dV_x}{dt} = I_0 \left[1 - \alpha \left(V_x + V_{\text{film}} - V_f \right) - \exp \left(\frac{V_{\text{film}} + V_x - V_f}{T_e} \right) \right] \end{array} \right.$$

Where α is the slope of the linear part of the curve, V_x is the potential measured by the electronic box, V_{film} is the potential of the layer, V_f is the floating potential

FIG. 5

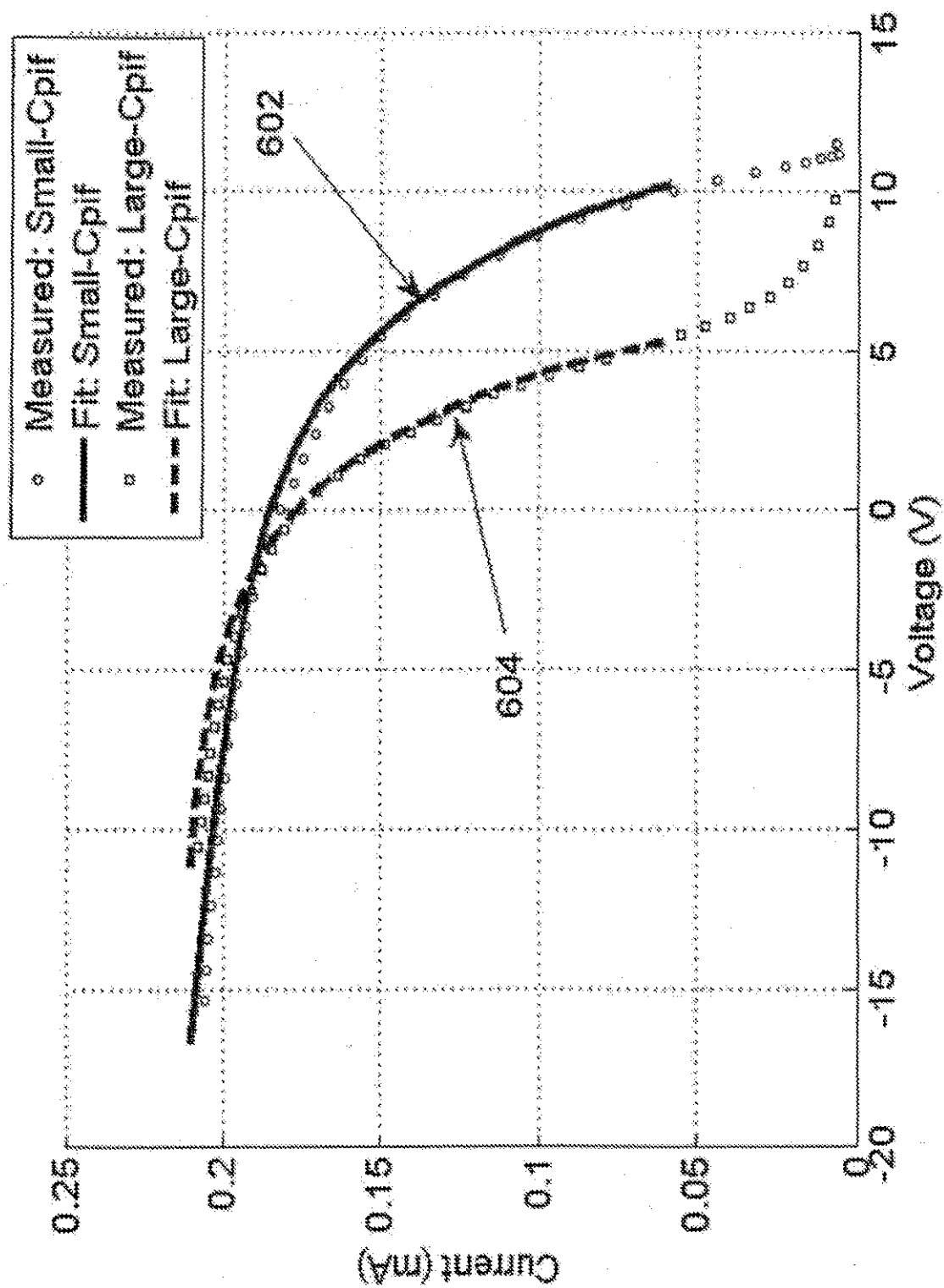


FIG. 6

$$C_{\text{film}} = \frac{\epsilon_0 \epsilon_r A}{d} \quad \text{Eq. 7A-1}$$

$$\frac{d}{\epsilon_r} = \frac{\epsilon_0 A}{C_{\text{film}}} \quad \text{Eq. 7A-2}$$

FIG. 7A

$$R_{\text{film}} = \rho \frac{d}{A} \quad \text{Eq. 7B-1}$$

$$p_{\epsilon_r} = \frac{\epsilon_r R_{\text{film}} A}{d} \quad \text{Eq. 7B-2}$$

$$p_{\epsilon_r} = \frac{R_{\text{film}} C_{\text{film}}}{\epsilon_0} \quad \text{Eq. 7B-3}$$

FIG. 7B

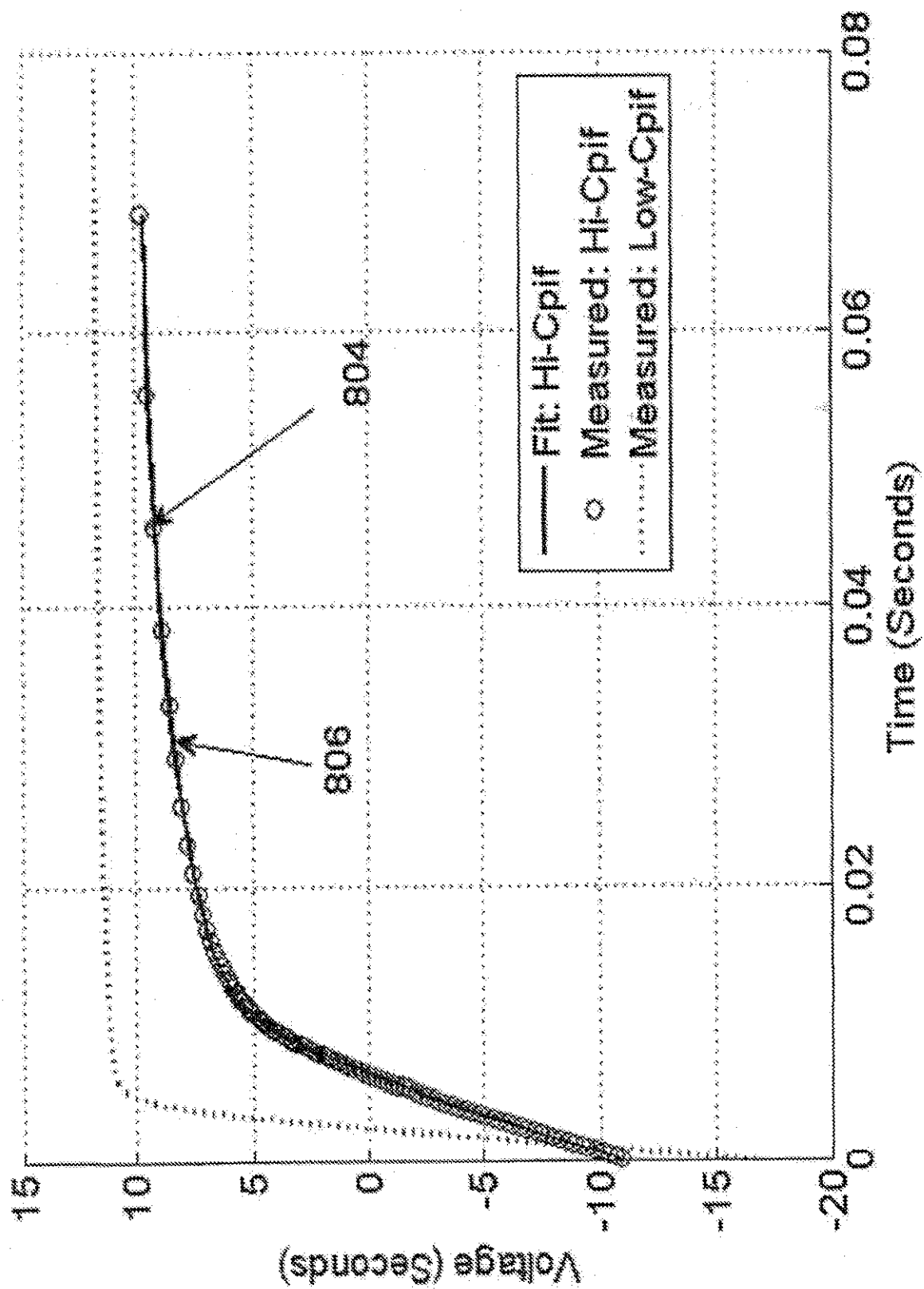


FIG. 8

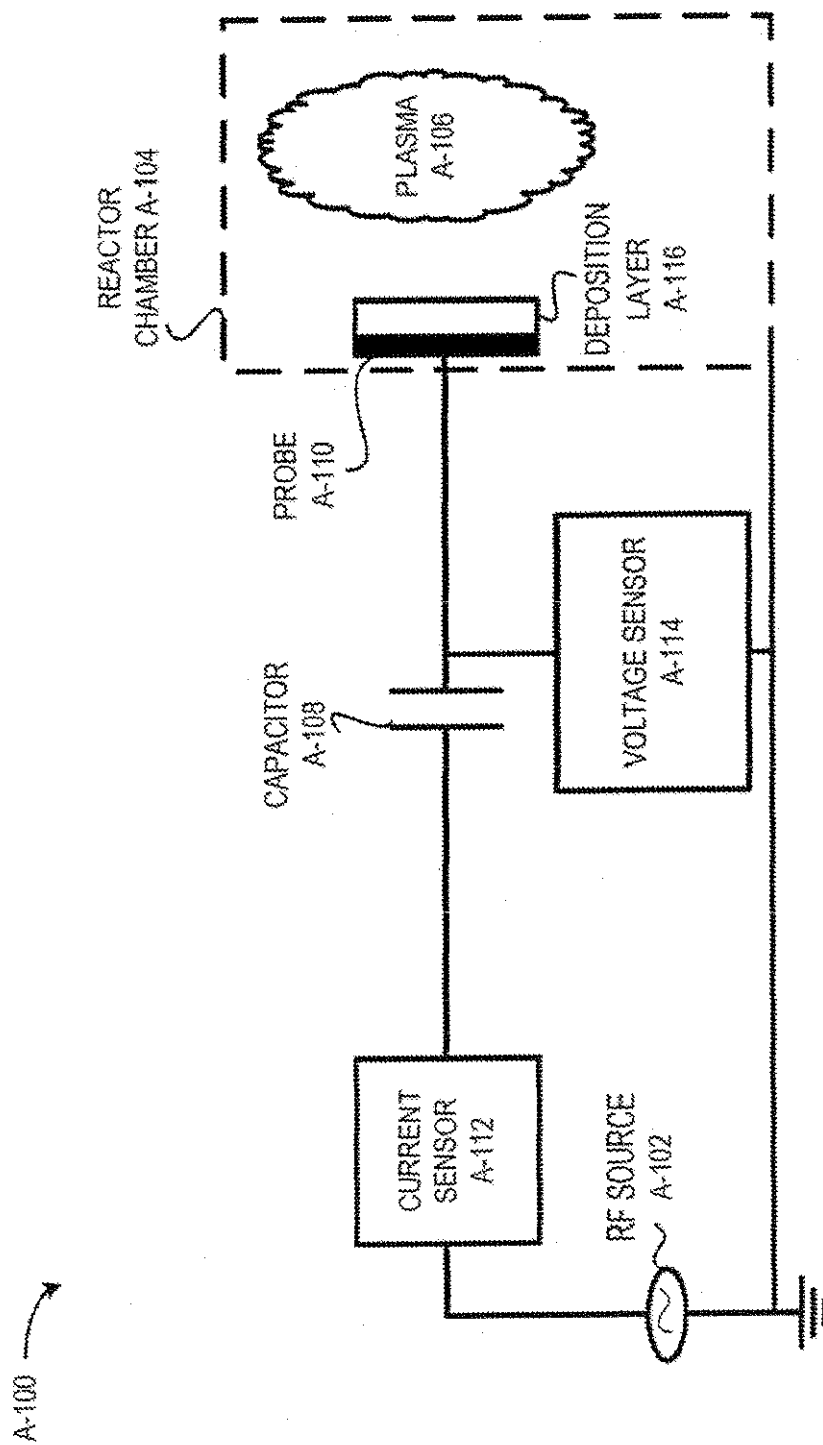


FIG. A
(PRIOR ART)

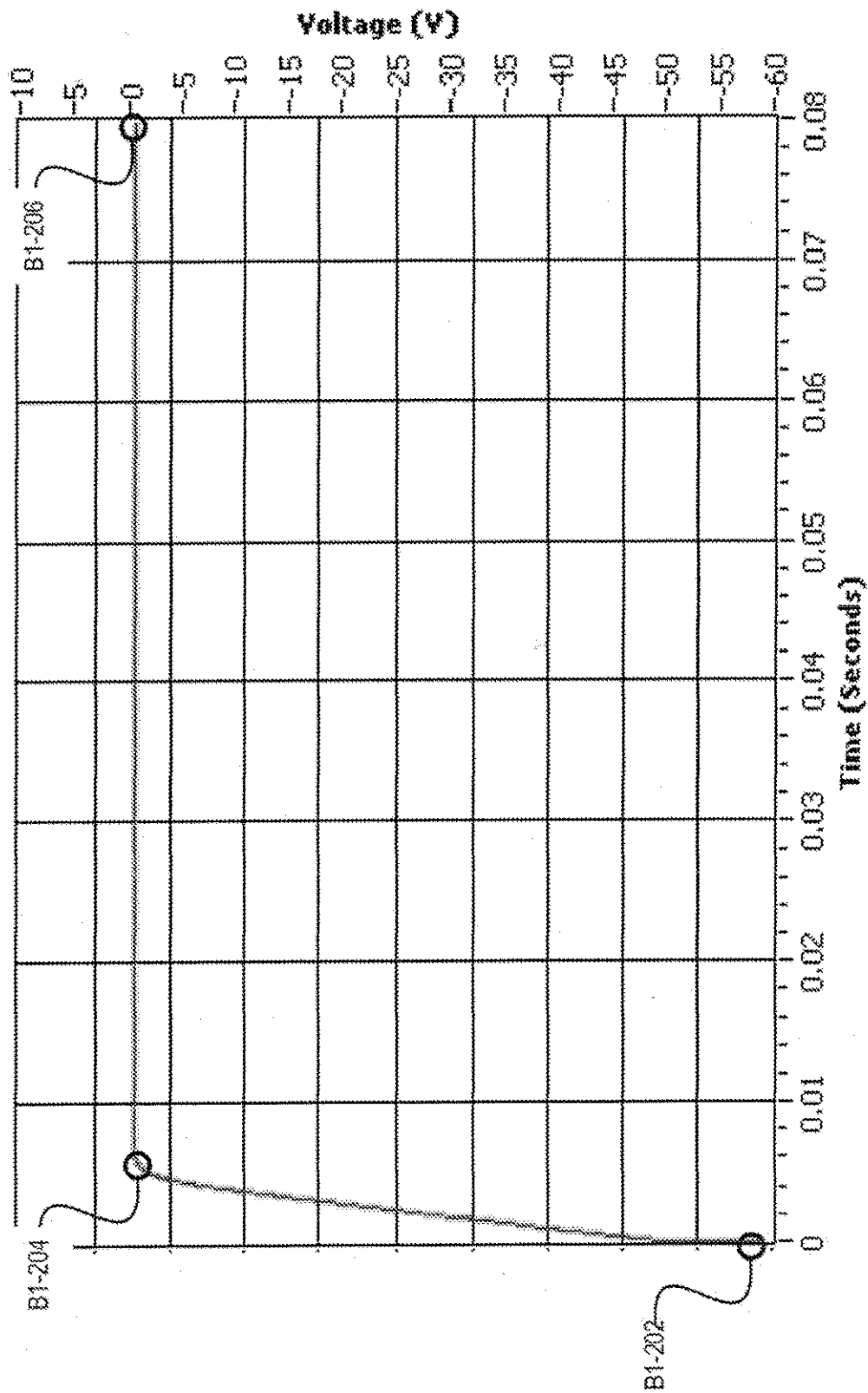


FIG. B1
(PRIOR ART)

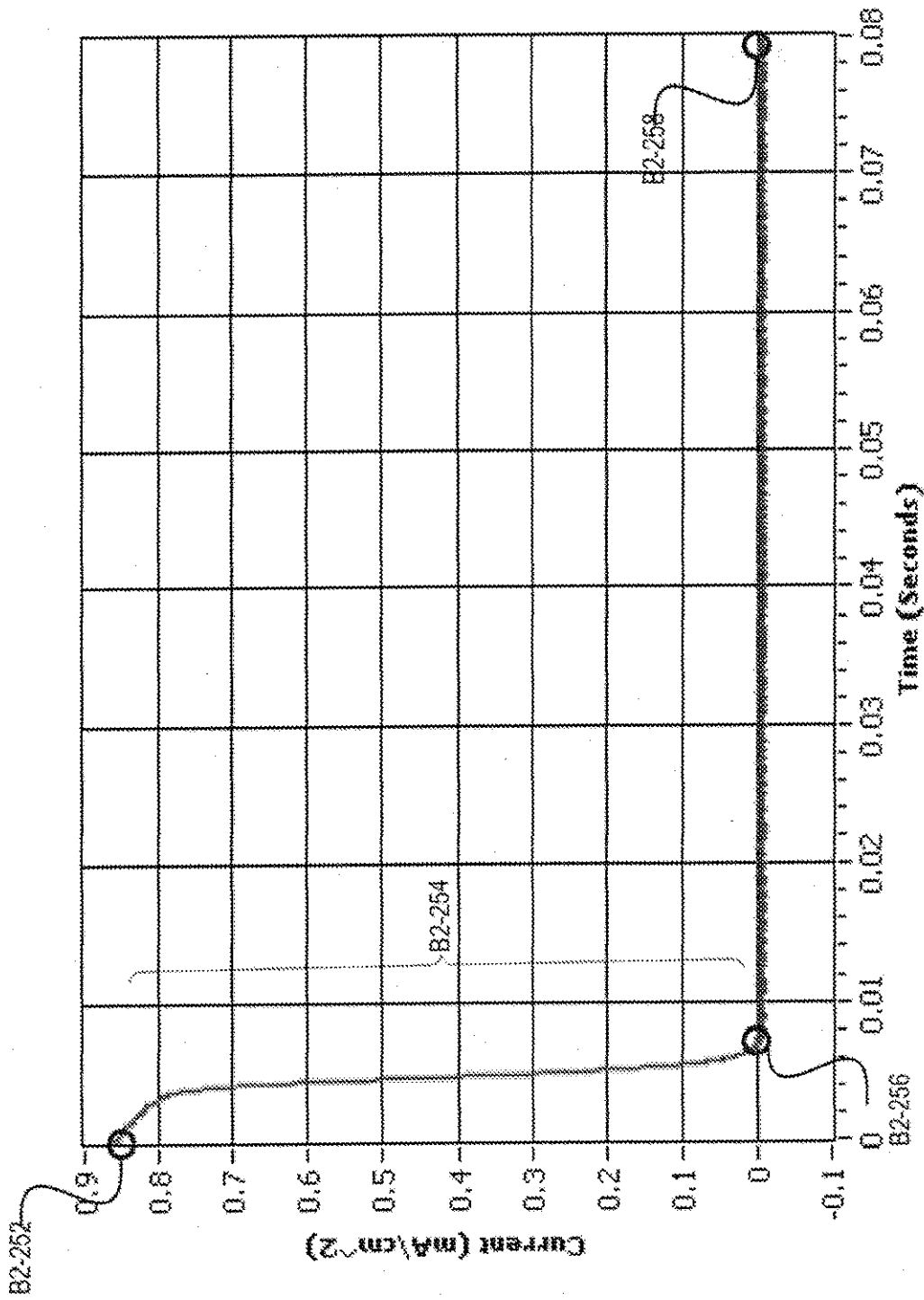


FIG. B2
(PRIOR ART)

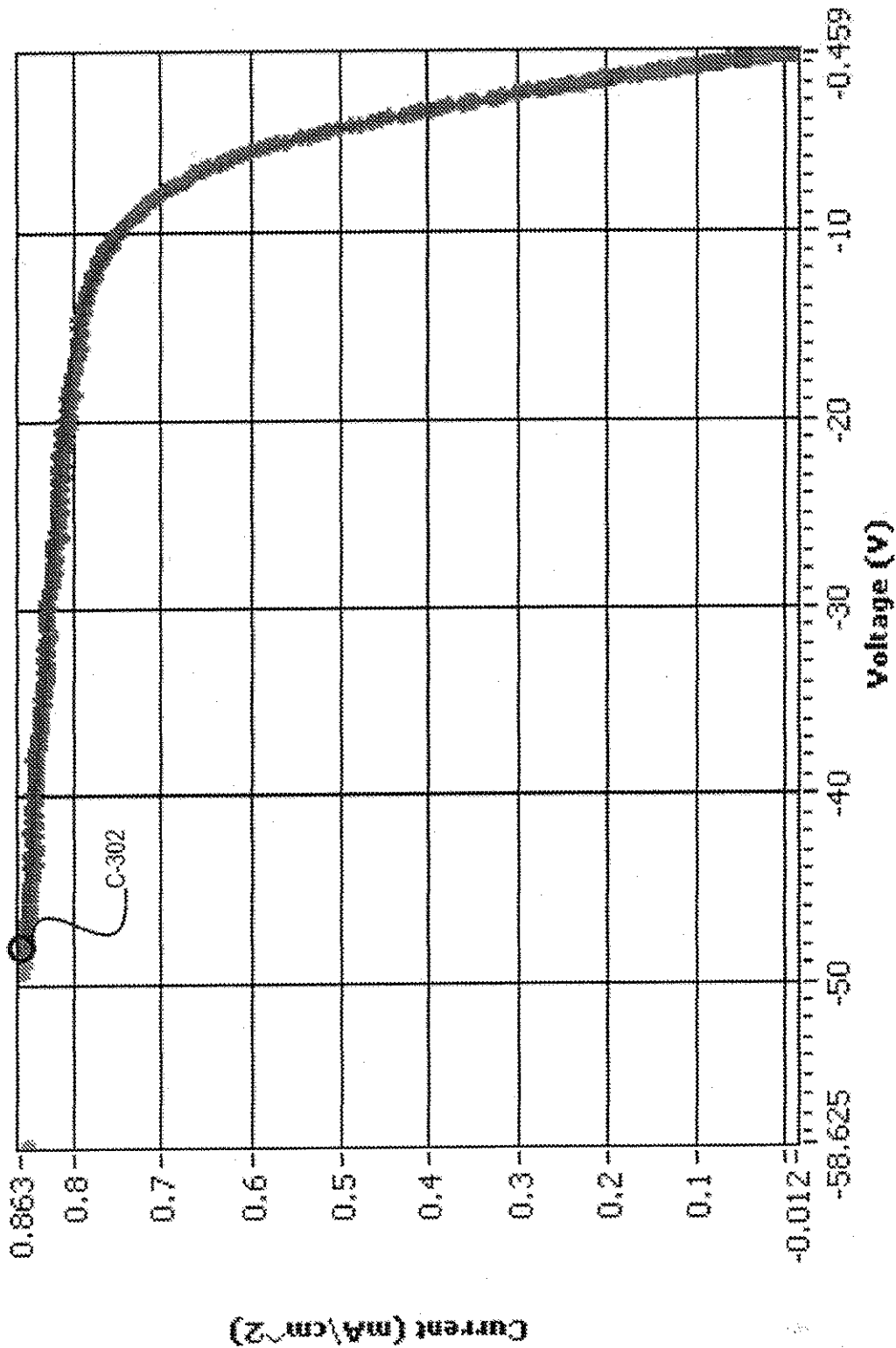


FIG. C
(PRIOR ART)

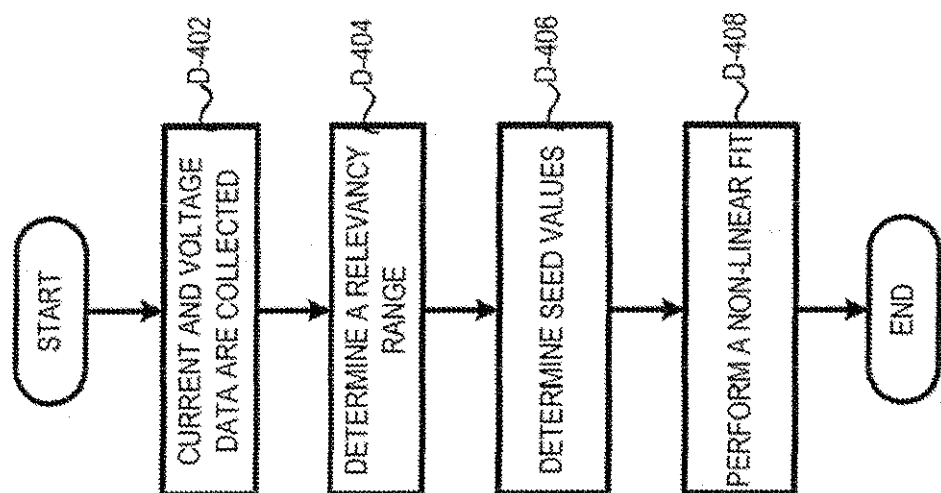


FIG. D

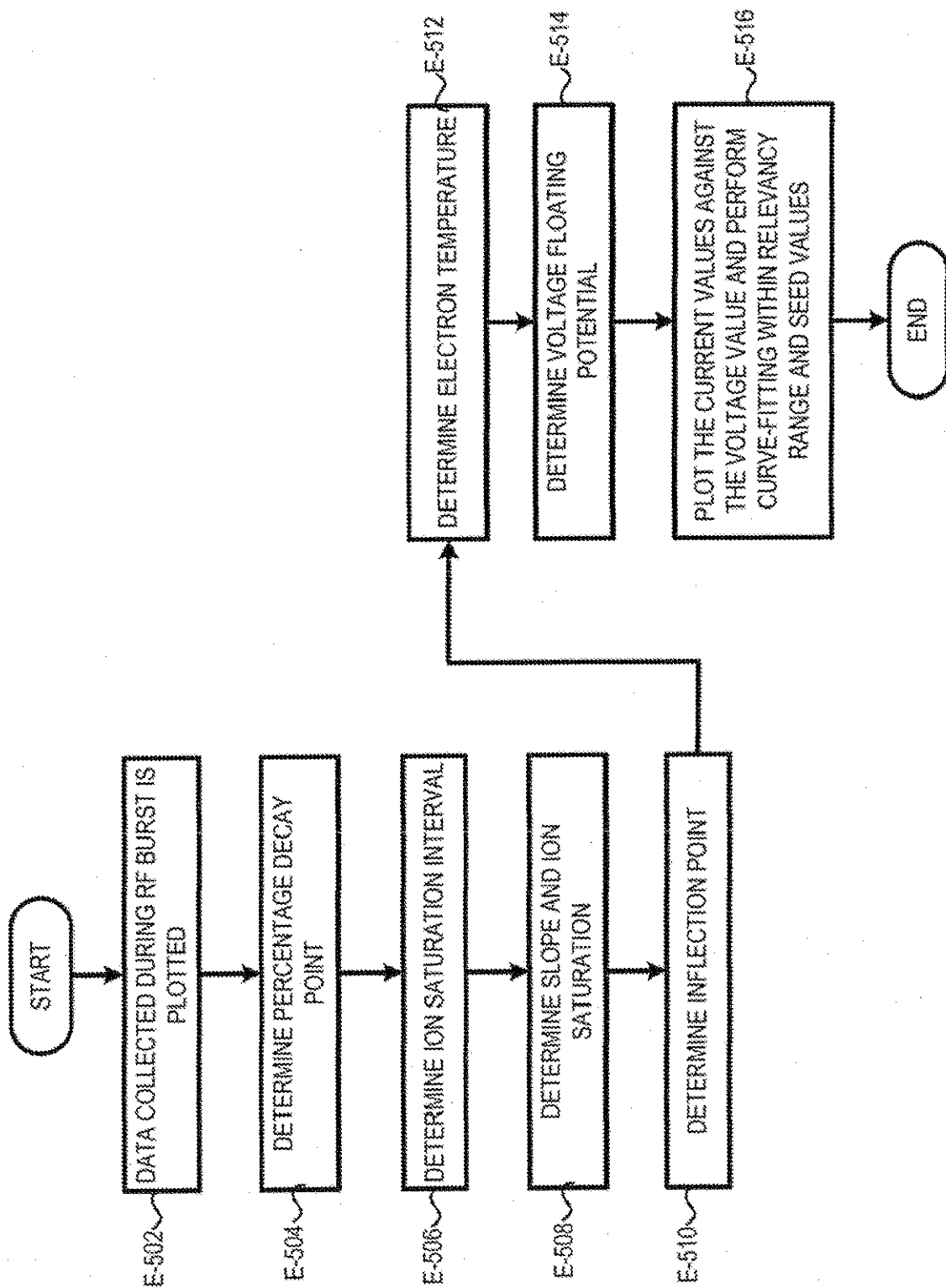


FIG. E

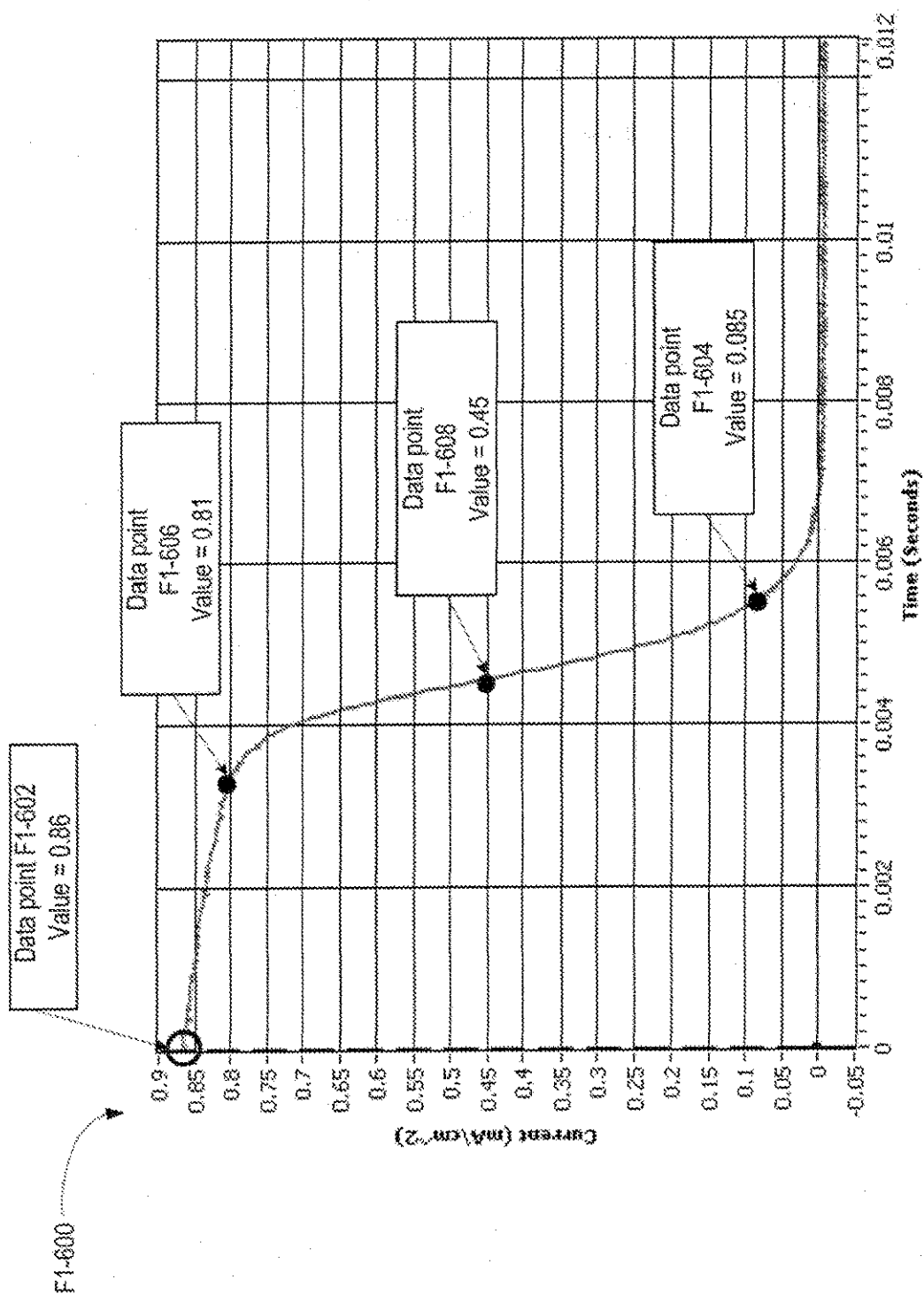


FIG. F1

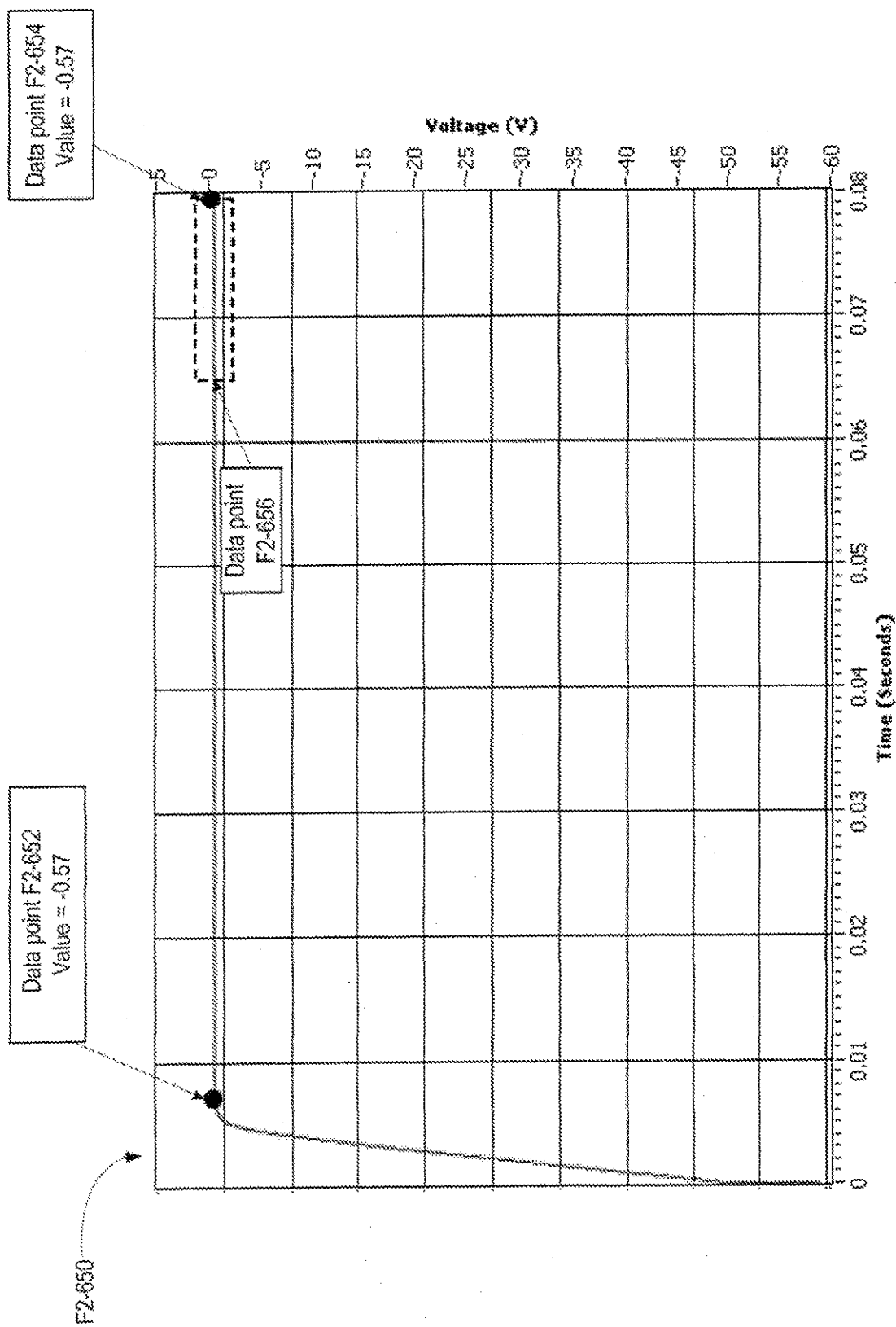


FIG. F2

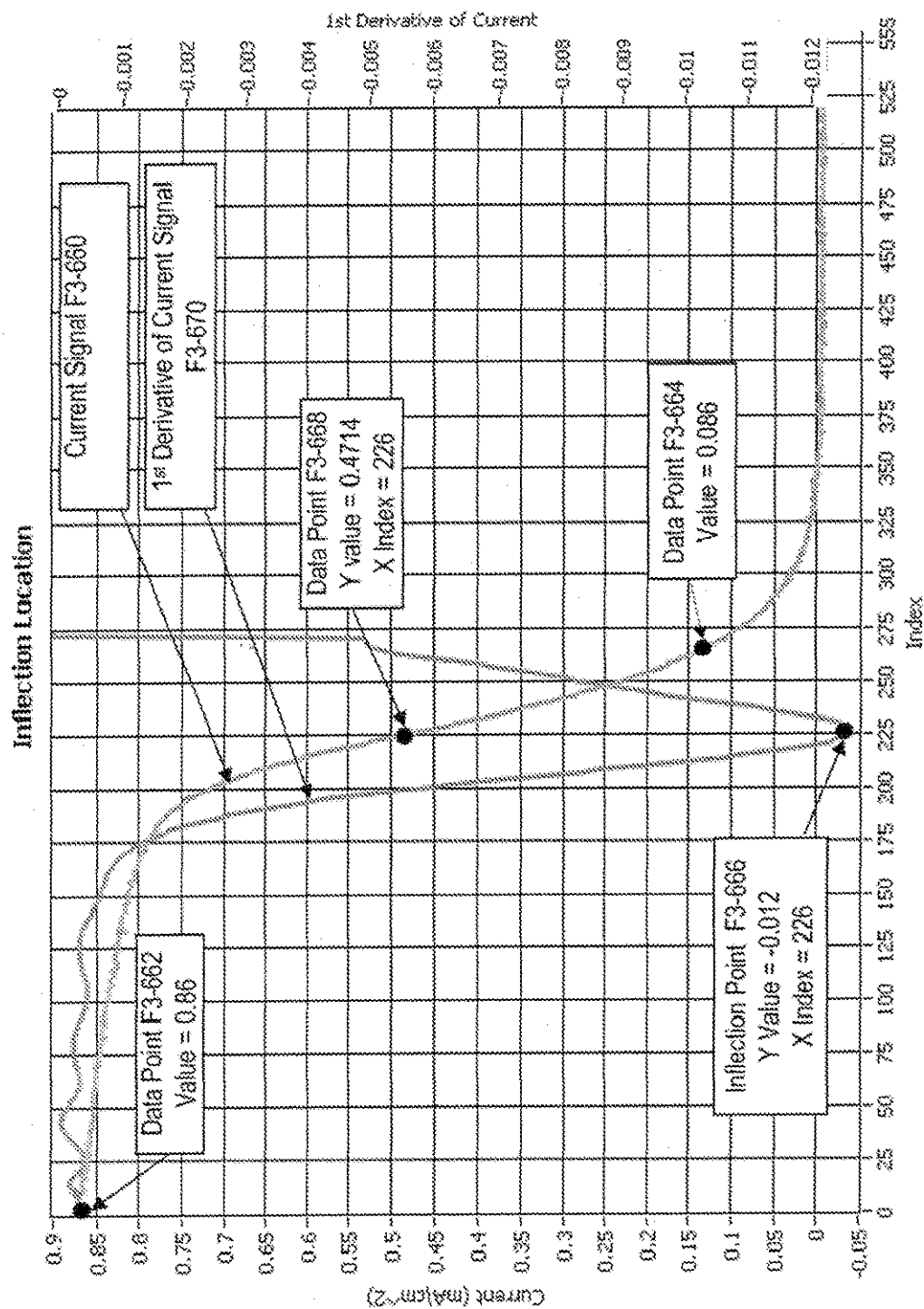


FIG. F3

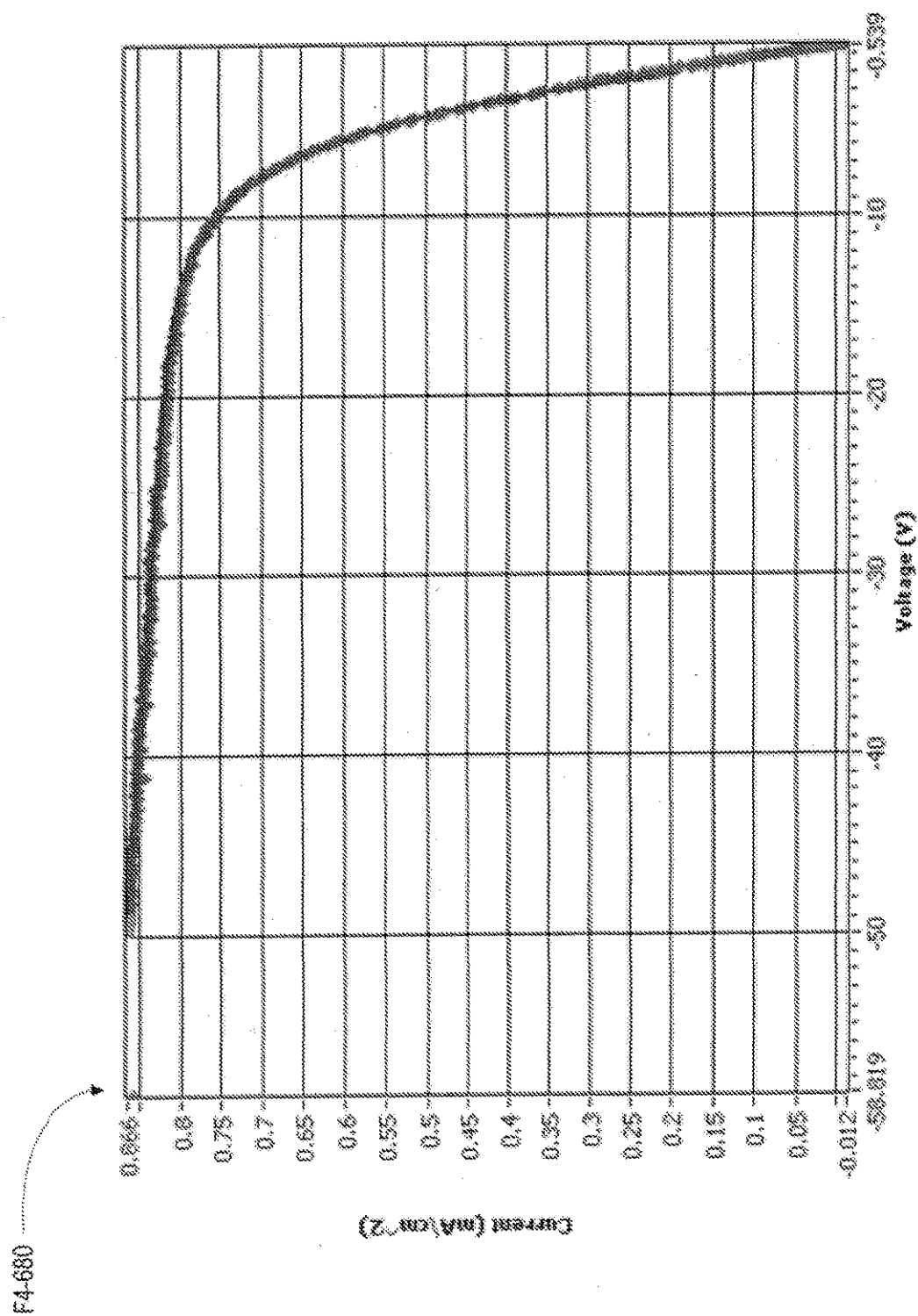


FIG. F4