

FIG.1

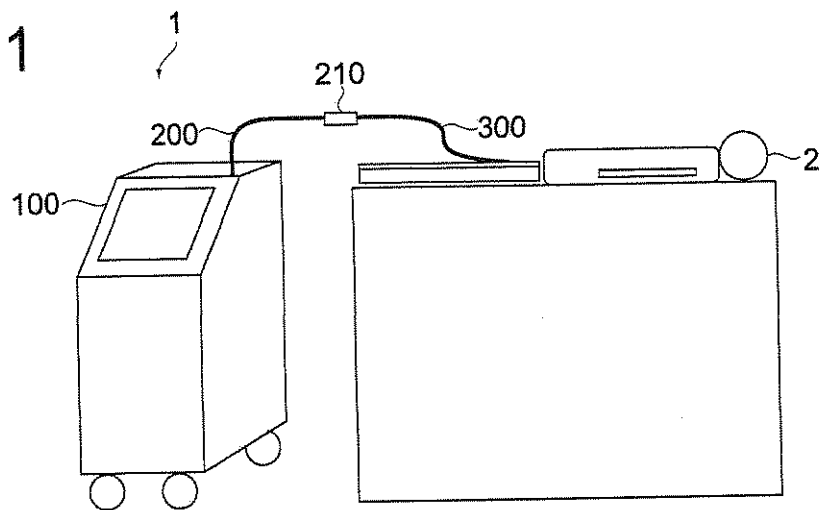


FIG.2

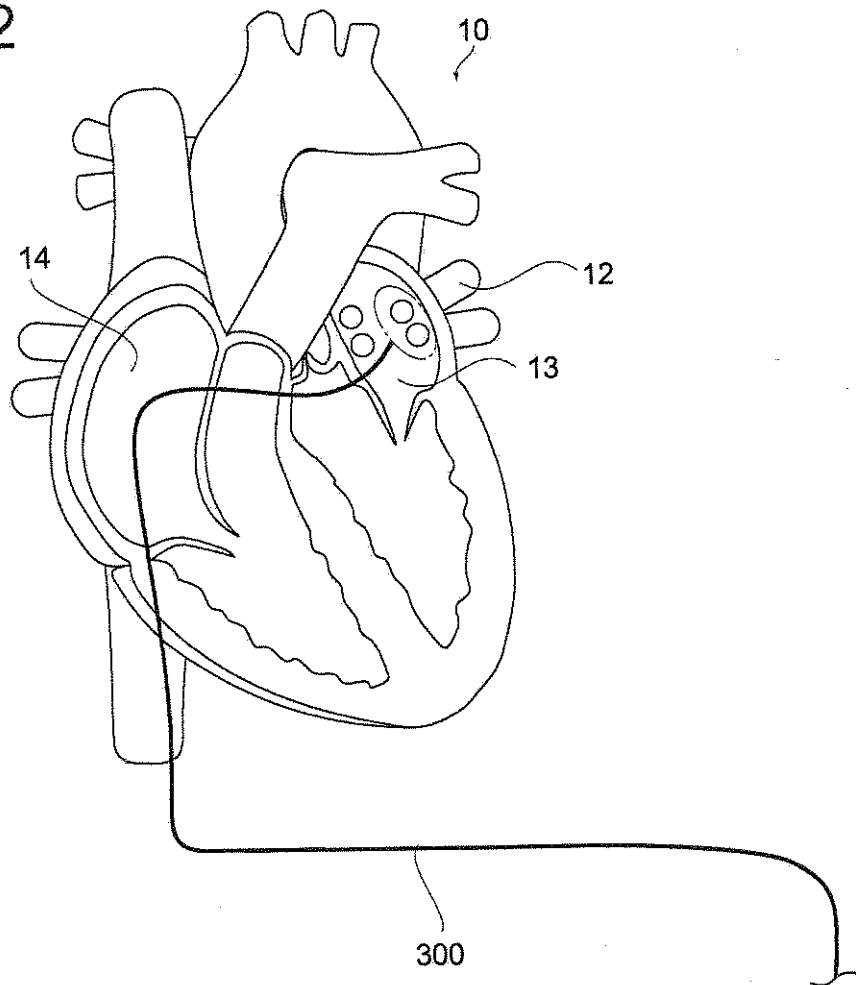


FIG.3

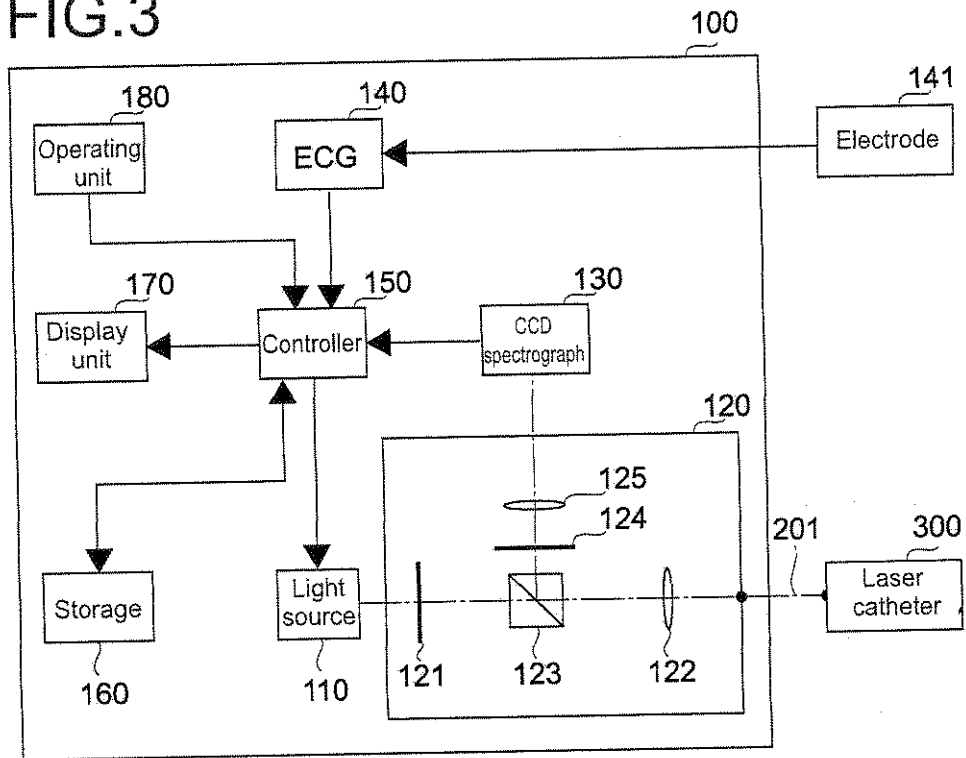


FIG.4

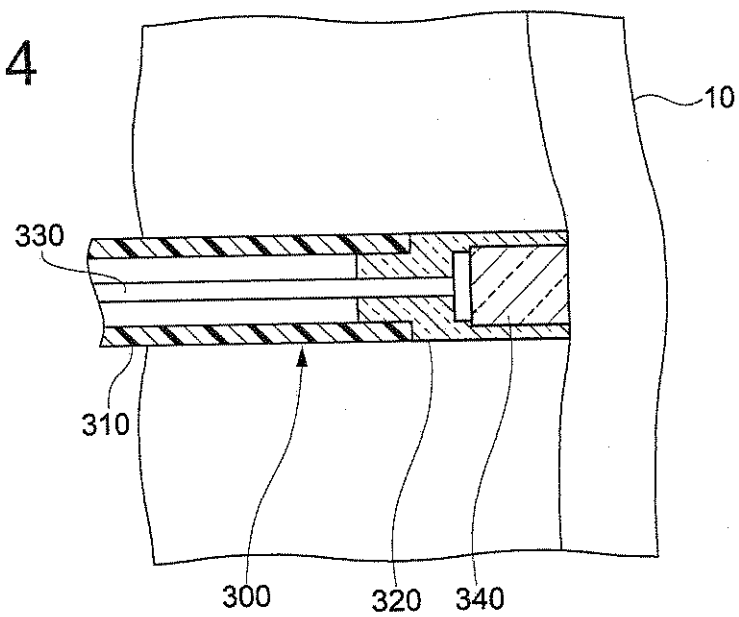


FIG.5

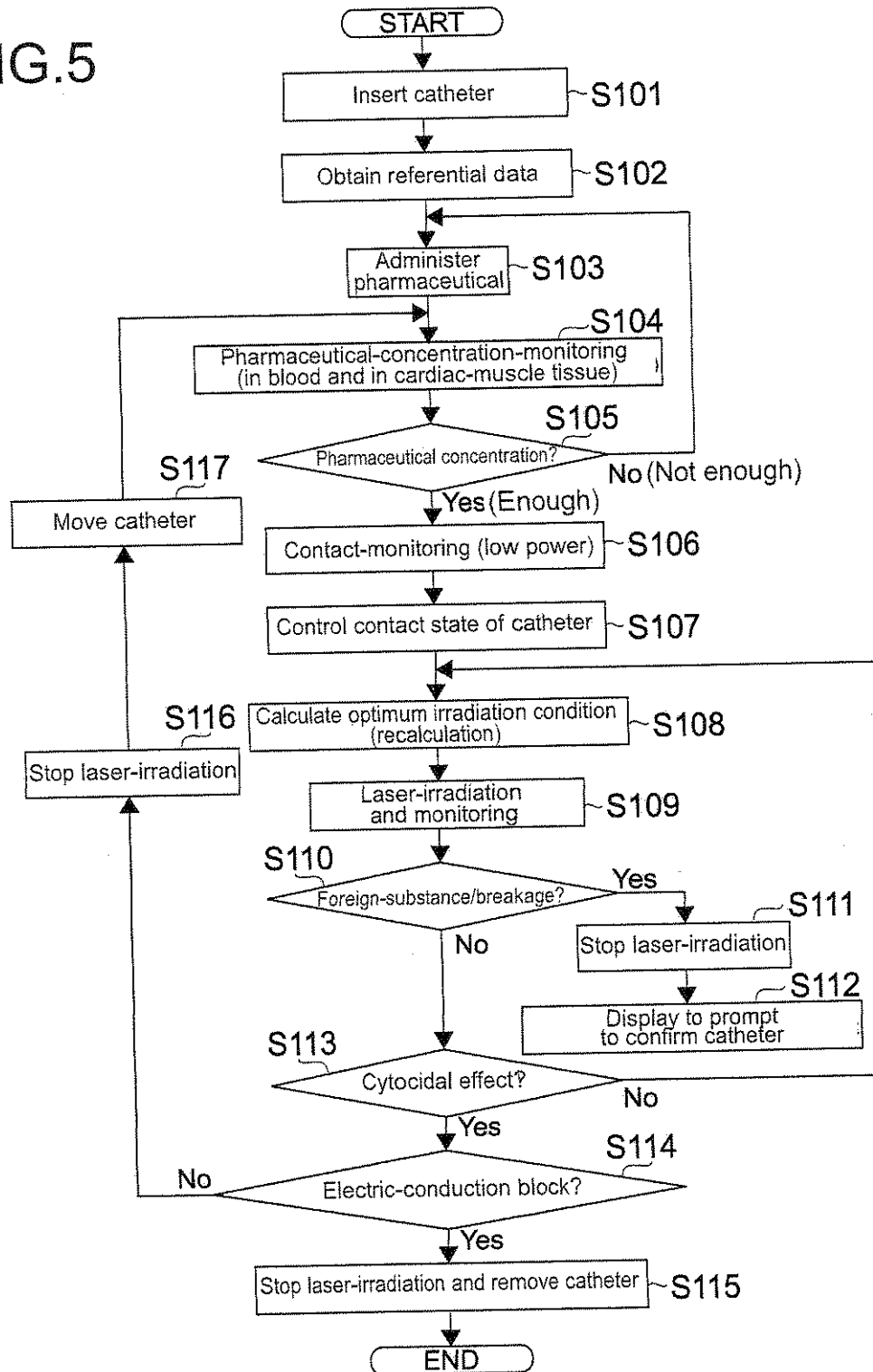


FIG.6

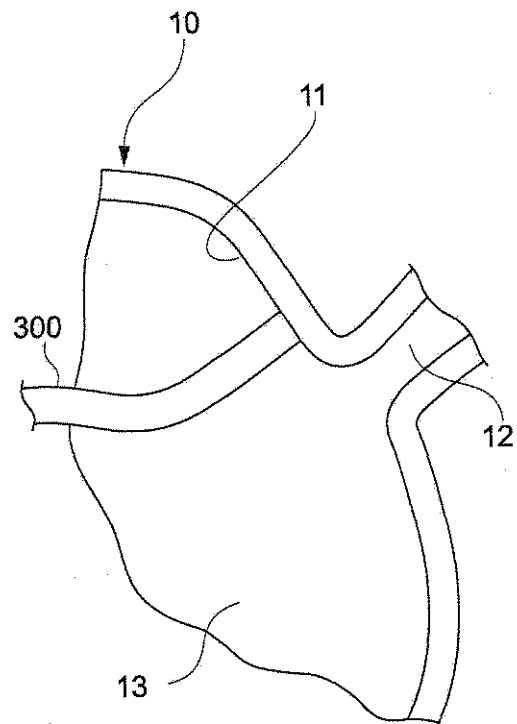


FIG.7

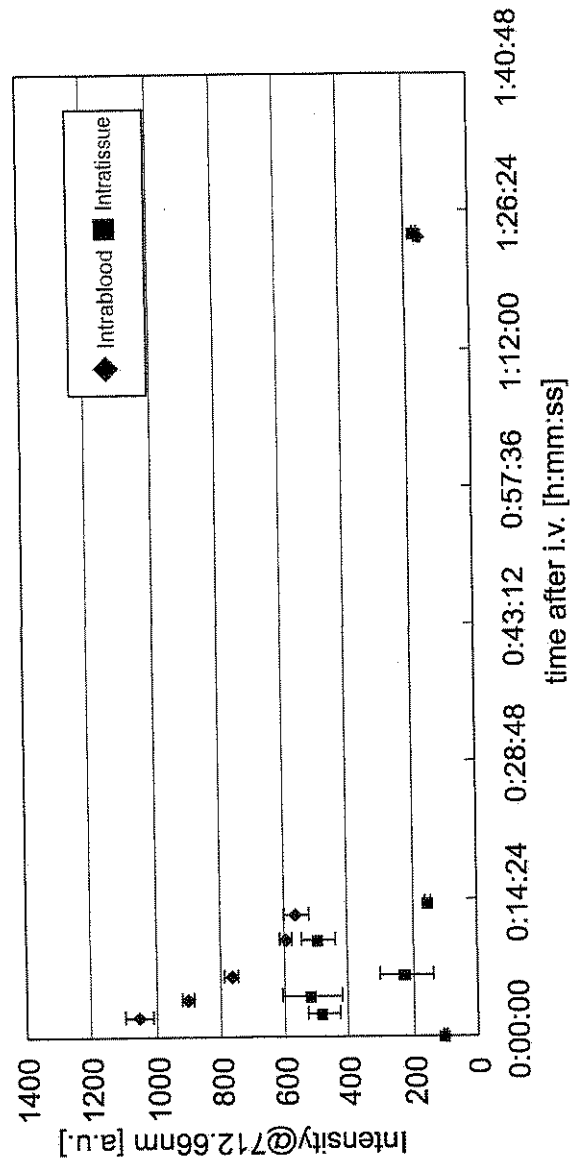


FIG.8

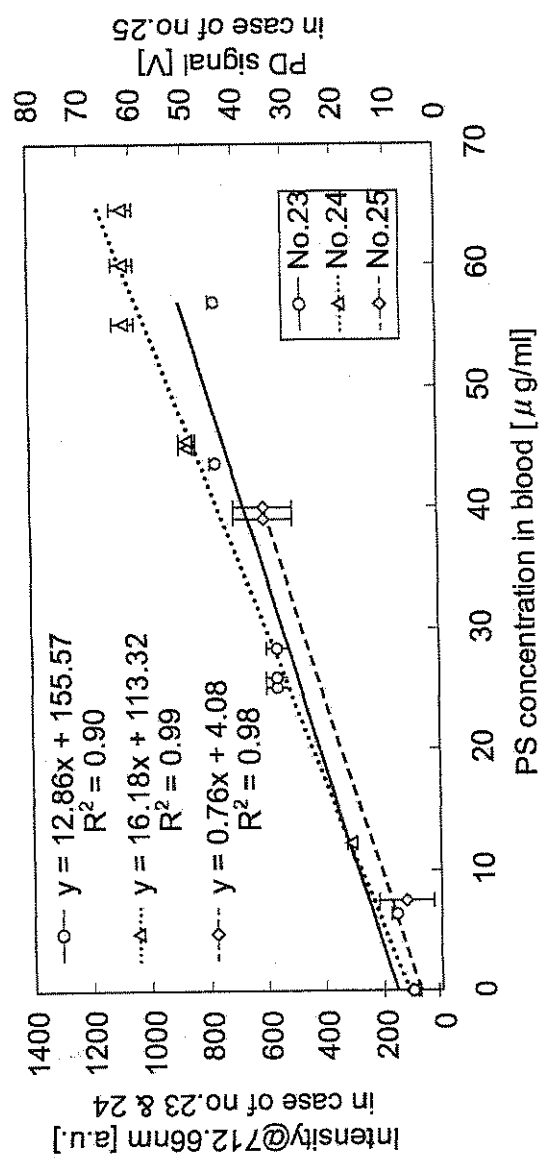


FIG. 9

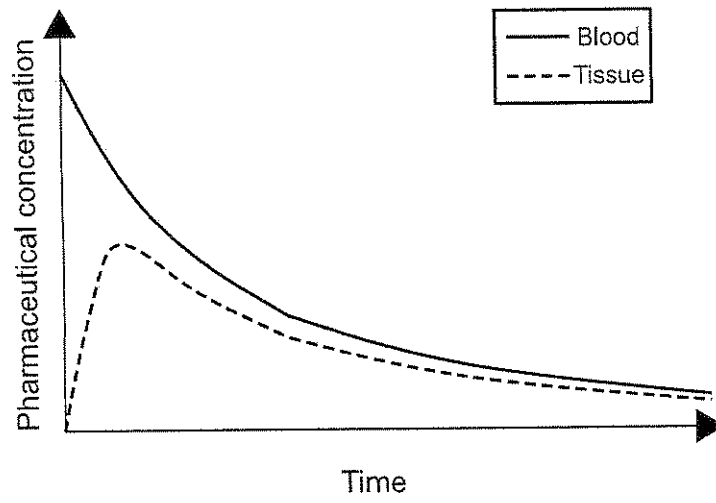


FIG. 10

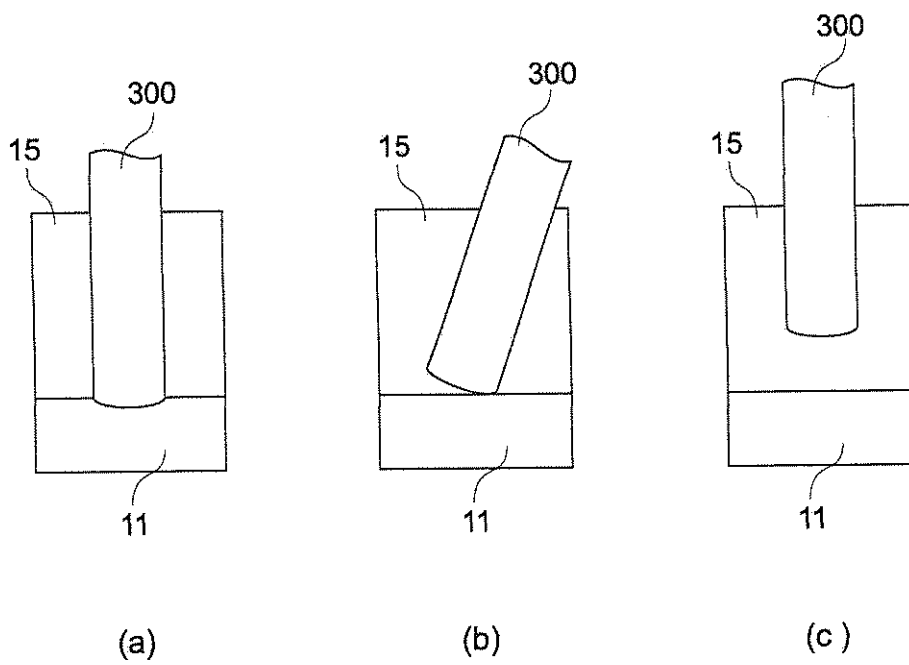


FIG.11

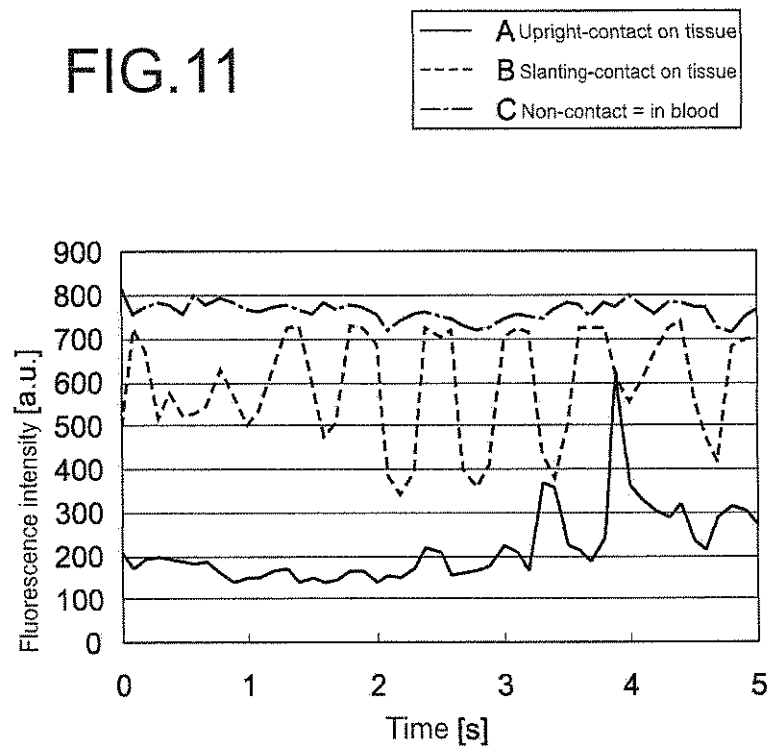


FIG.12

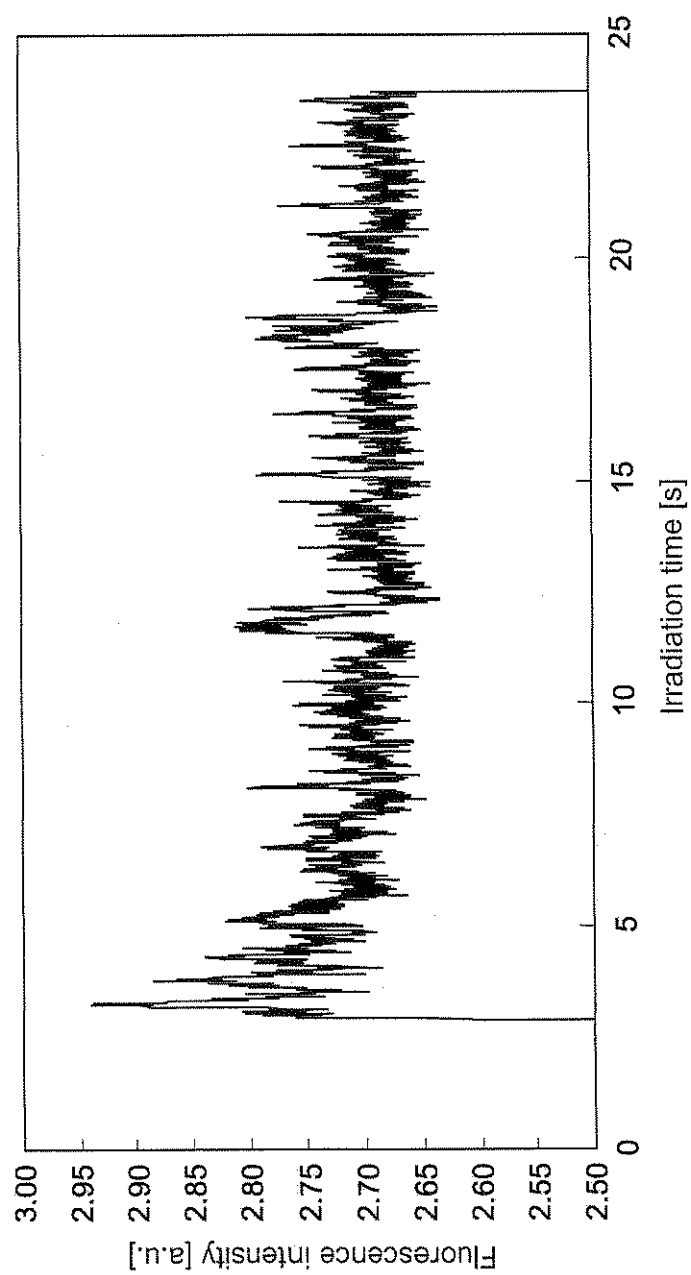


FIG.13

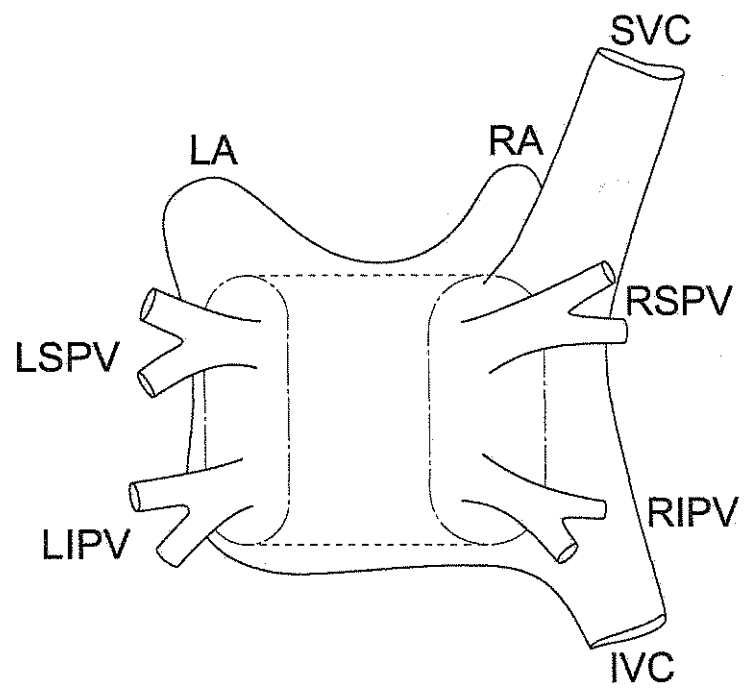


FIG.14

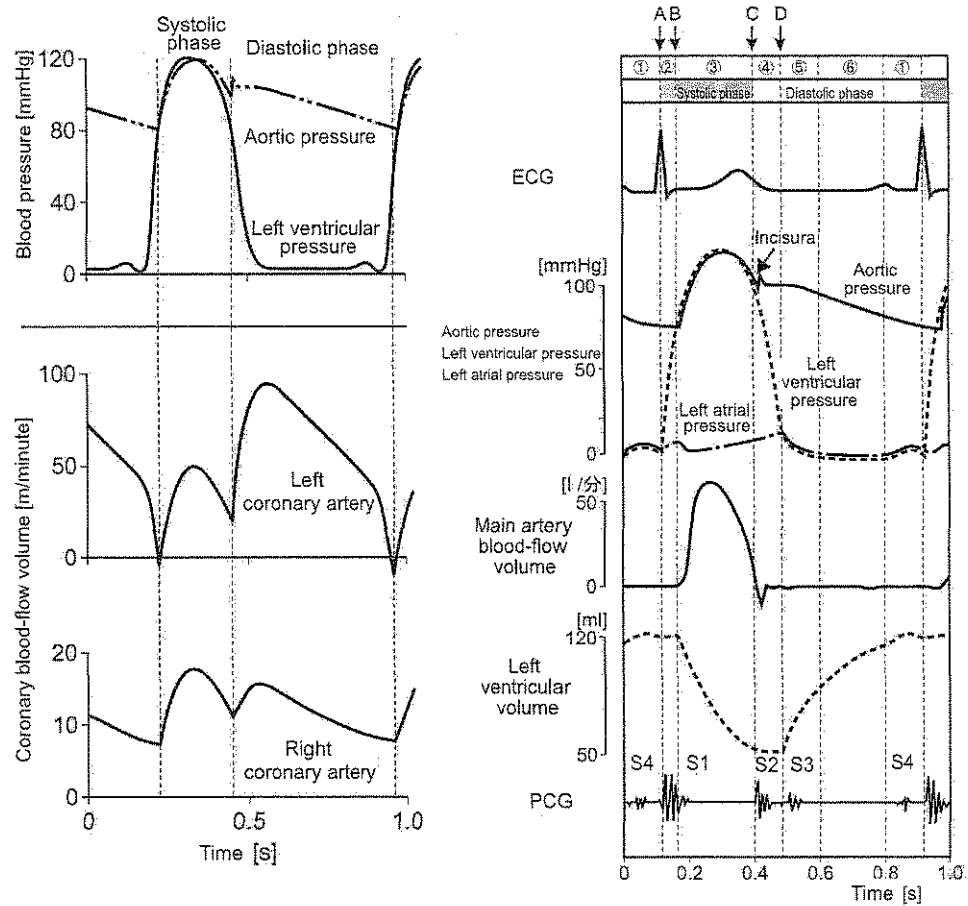


FIG.15

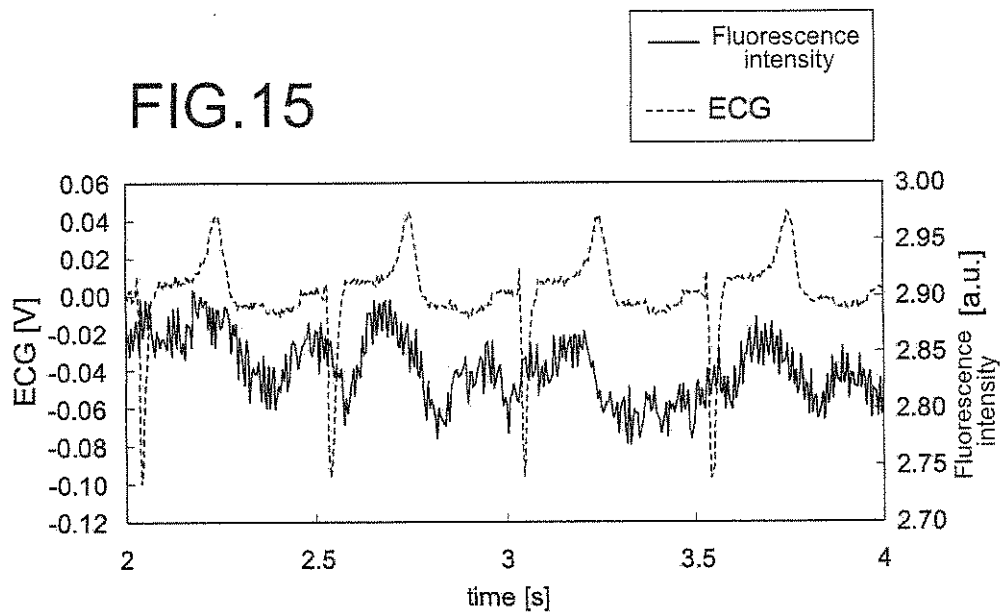


FIG.16

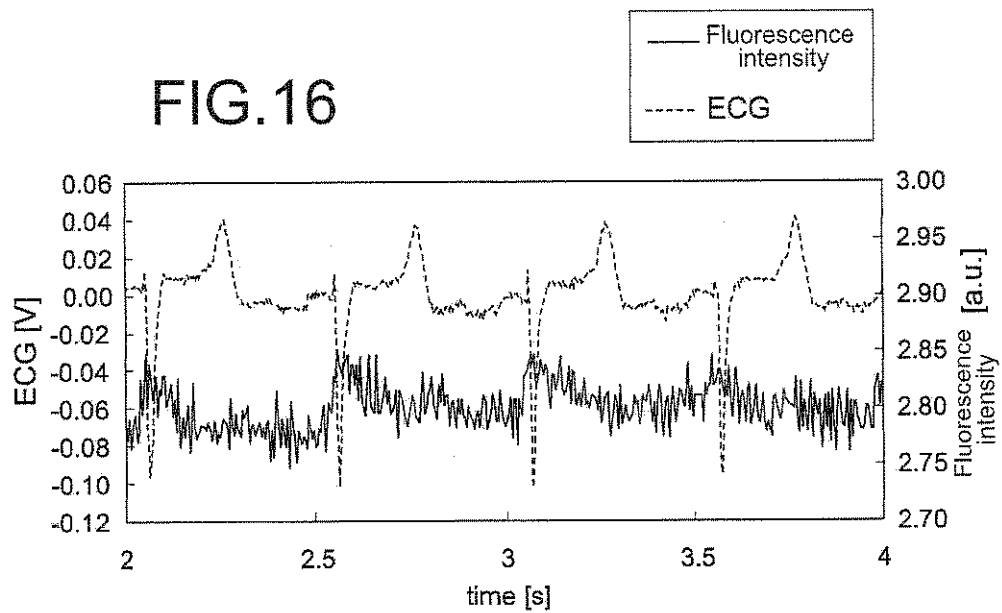


FIG.17

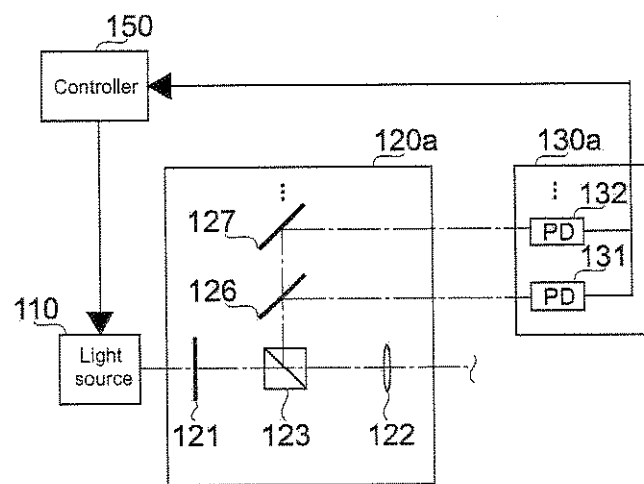
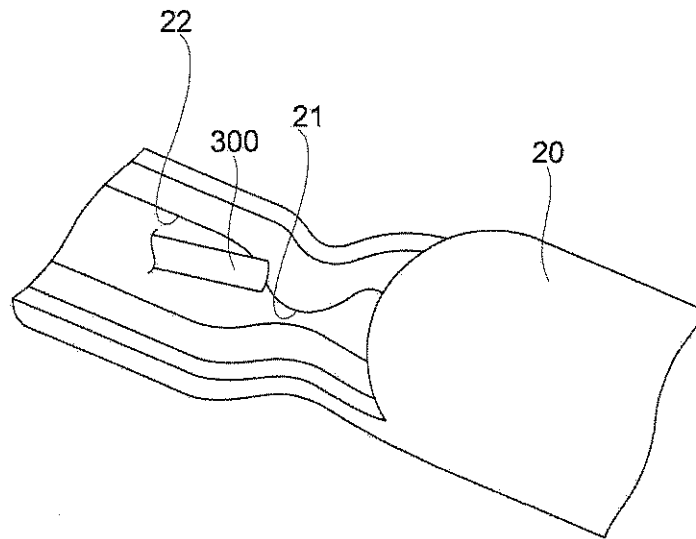


FIG.18

(a)



(b)

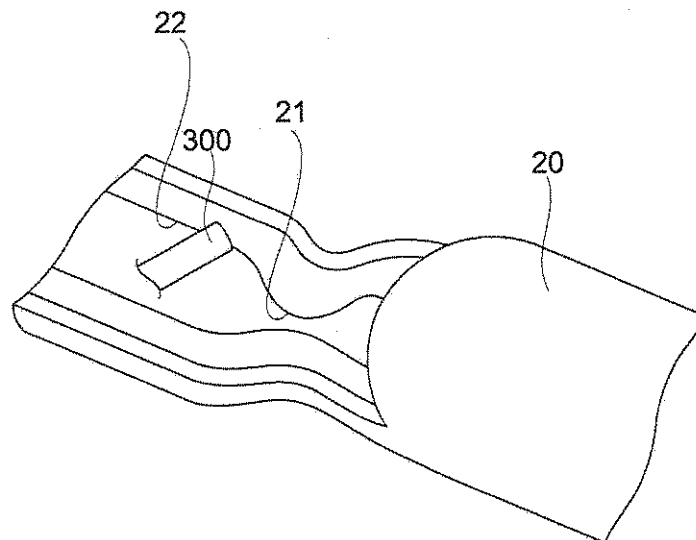


FIG.19

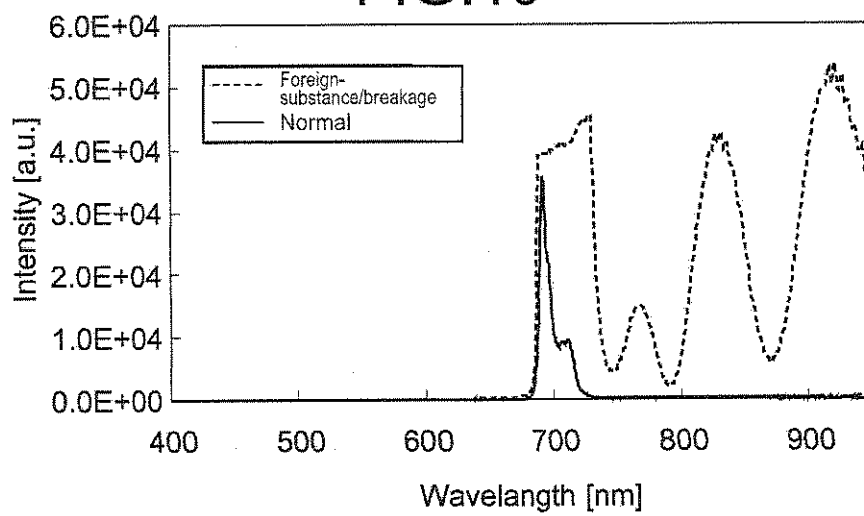


FIG.20

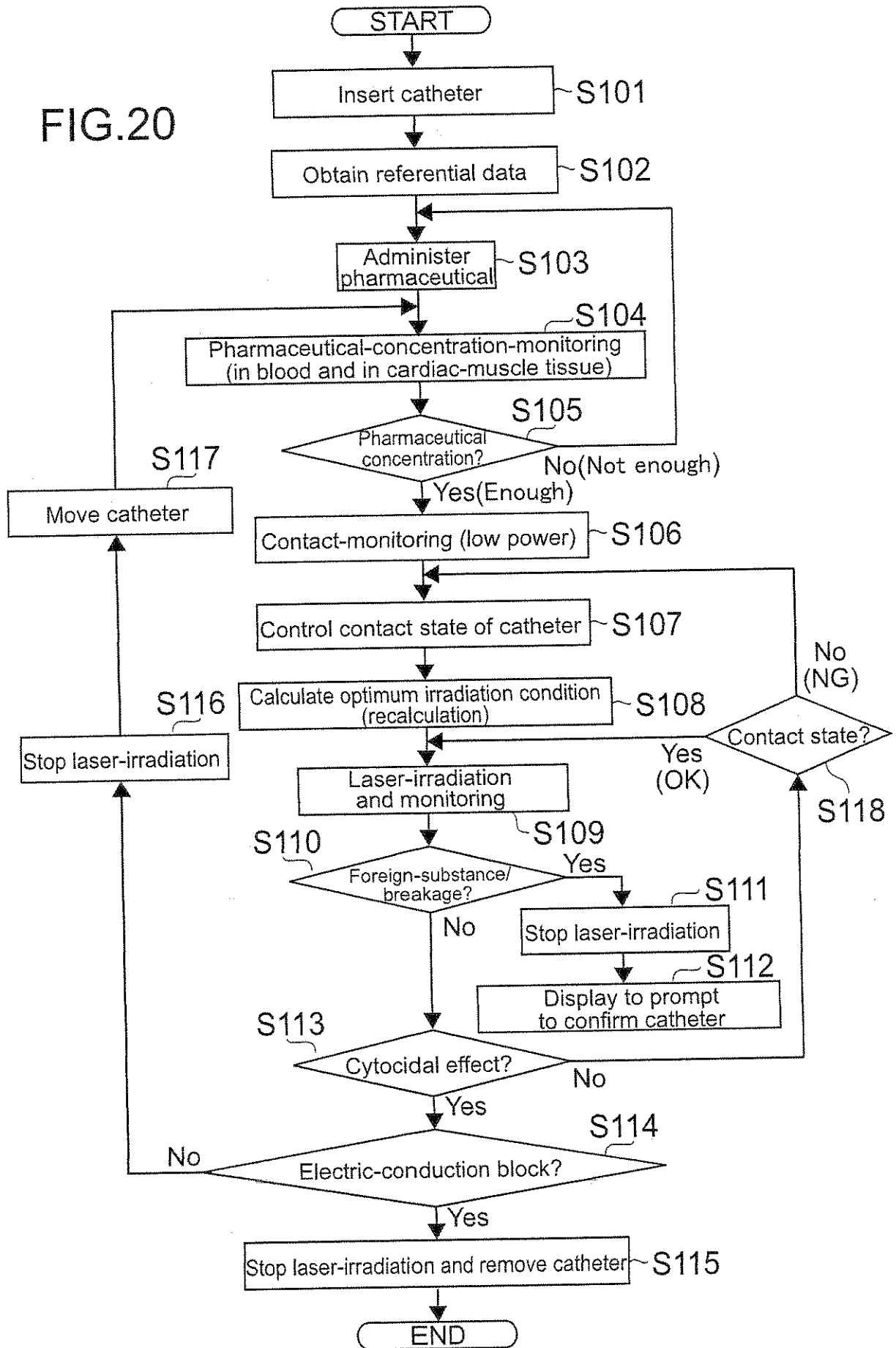


FIG.21

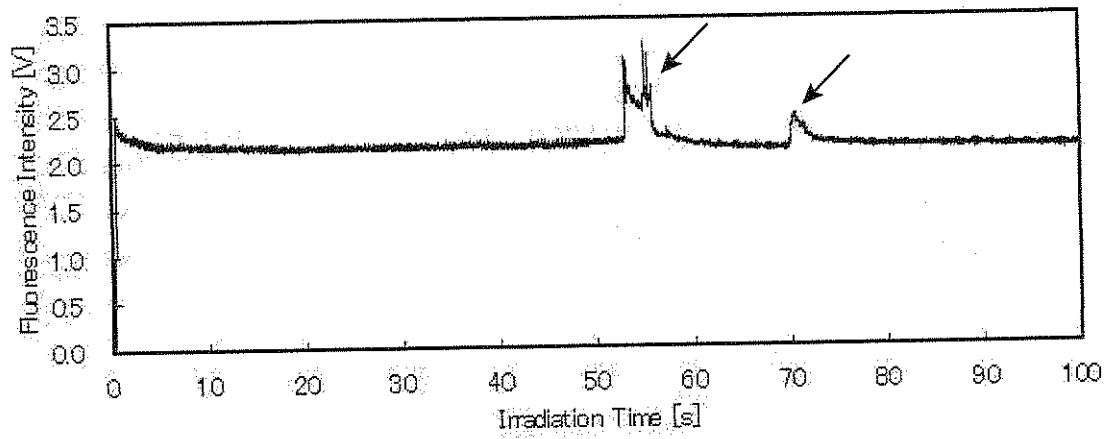


FIG.22

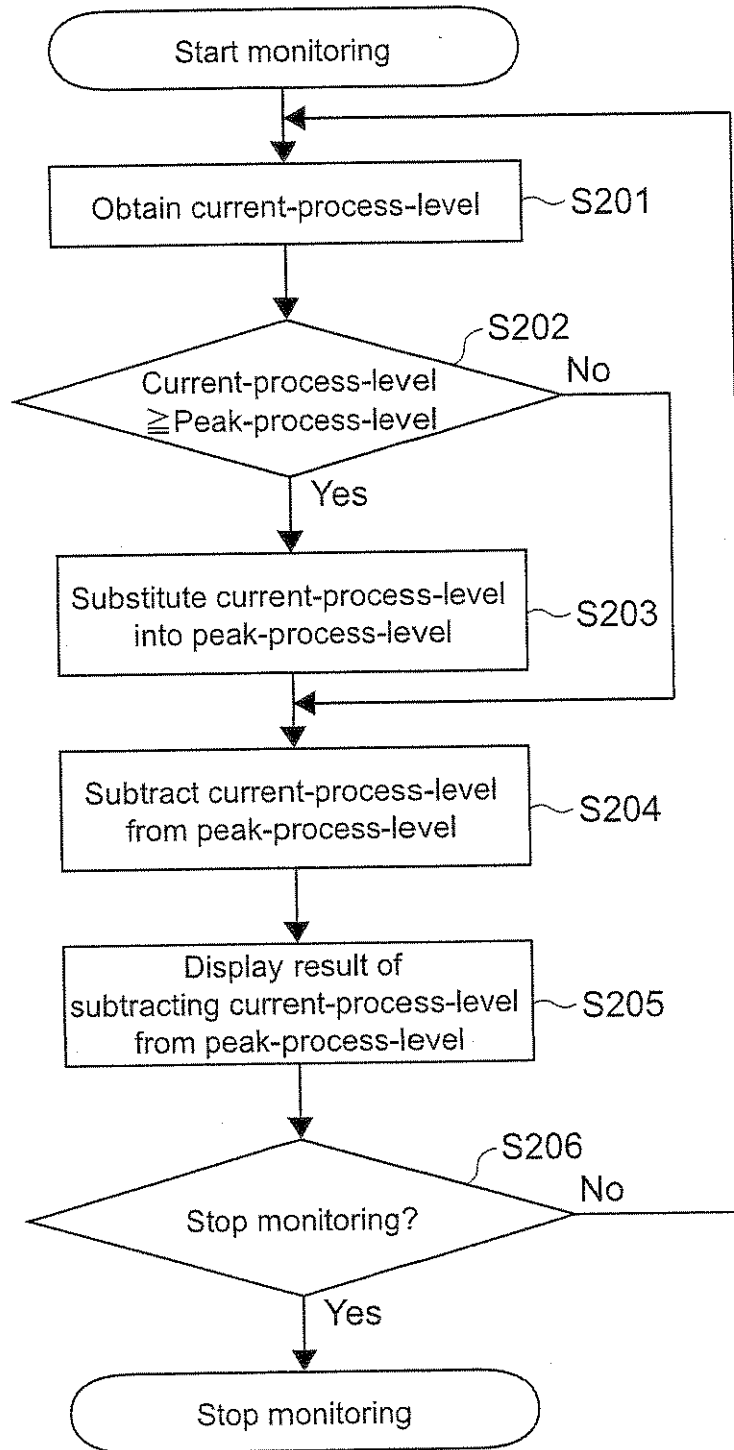
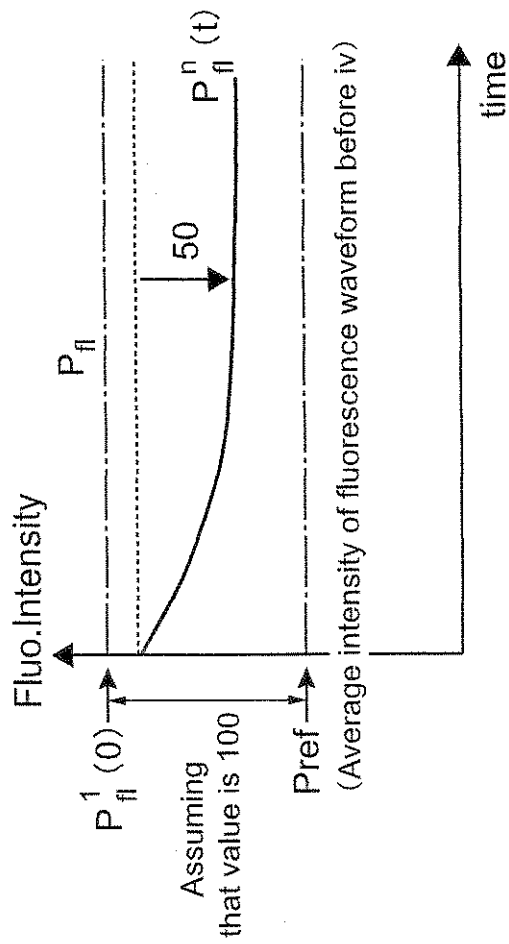


FIG.23

$$P_{fl}^1(0) - Pref \stackrel{\text{def}}{=} 100 \times \frac{X \text{ mg/kg}}{10 \text{ mg/kg}} \times \frac{P \text{ W/cm}^2}{40 \text{ W/cm}^2} = A$$

$$\frac{- \left[P_{fl}^n(t) - P_{fl}^n(0) \right]}{P_{fl}^1(0) - Pref} \times A = \text{PDT process level}$$



n is indicative of number of excitation-light-irradiation times
 e.g.: n=1...Irradiation after 15 min after i.v. (High Power)
 n=2...Irradiation after 16 min after i.v. (High Power)
 n=3...Irradiation after 16 min 30 s after i.v. (High Power)
 .
 .
 .

FIG.24

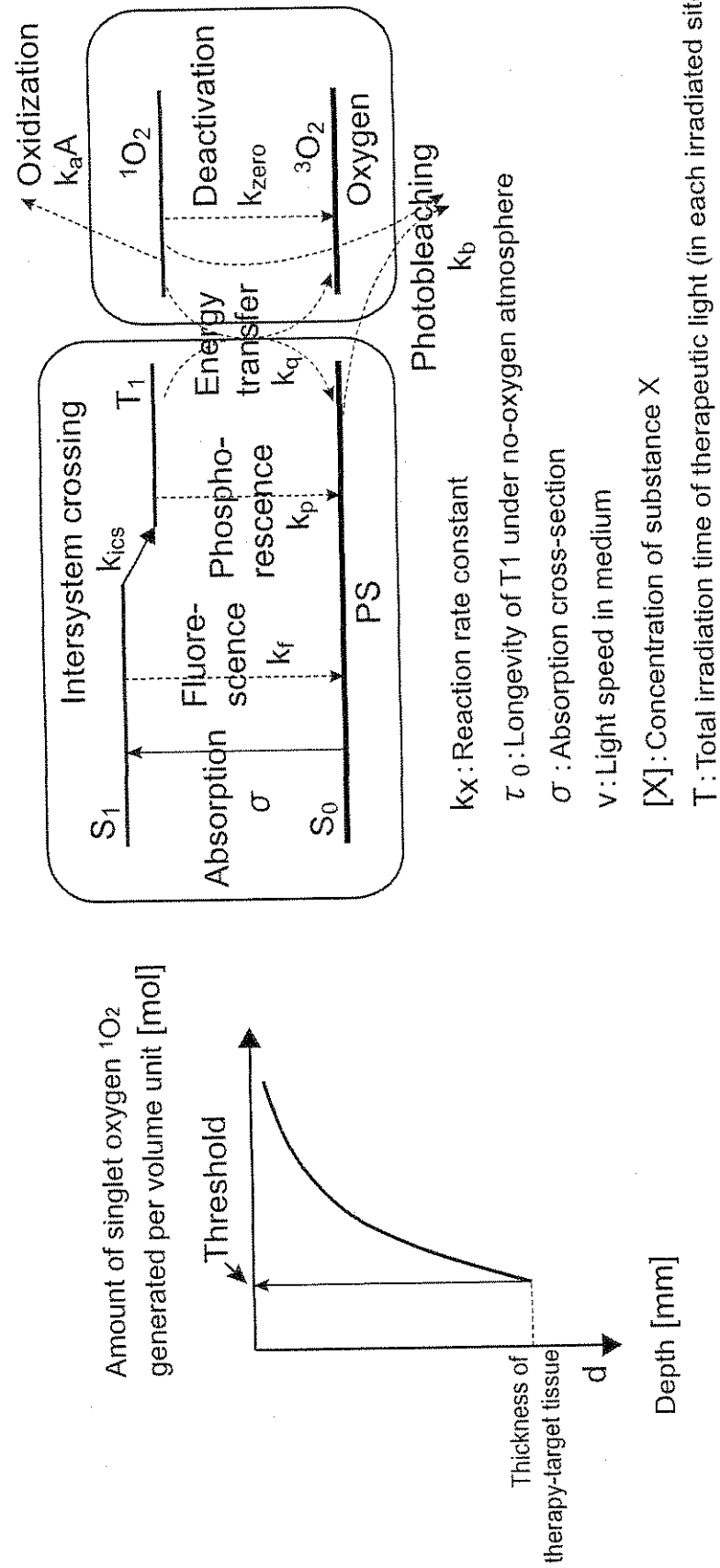


FIG.25

$$\int_0^T [^1\text{O}_2](t) dt = \int_0^T ([S_0]_t(t) \times v \rho \sigma t \times \frac{k_{ics}}{k_f + k_{ics}} \times \frac{k_q[^3\text{O}_2]}{\frac{1}{\tau_0} + k_q[^3\text{O}_2]}) dt$$

$$\frac{d [S_0]_t(t)}{dt} = -k_b [S_0]_t(t) [^1\text{O}_2](t)$$

$$\rho = I \times G(d, t, t')$$

$$[S_0]_t(t) = F(\text{PS dose}, t, t')$$

t: Irradiation time period in each site

t': Elapsed time after pharmaceutical administration (iv)

ρ : Light density at depth d

FIG.26

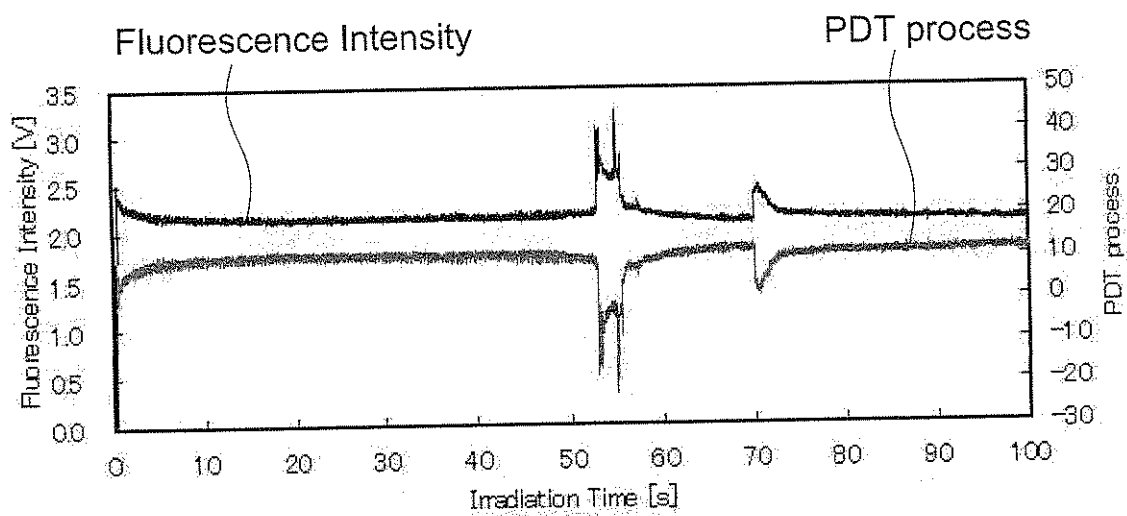


FIG.27

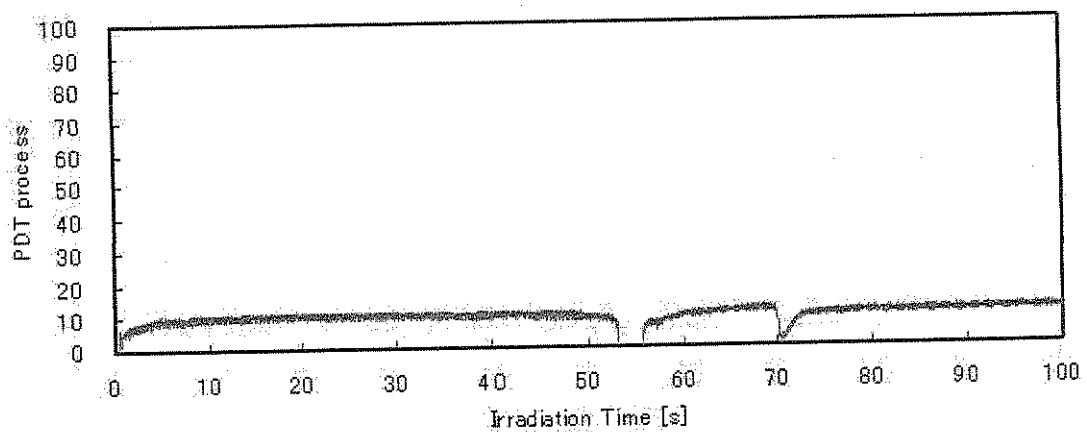


FIG.28

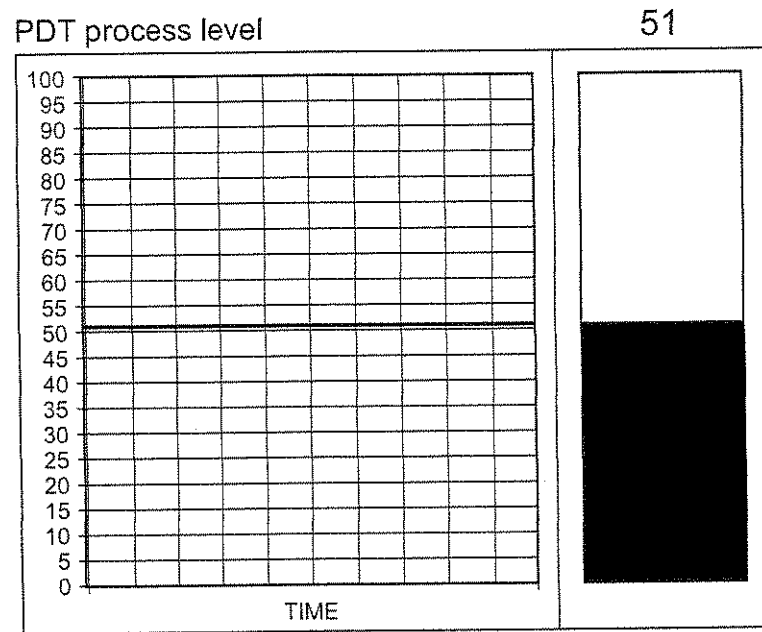


FIG.29

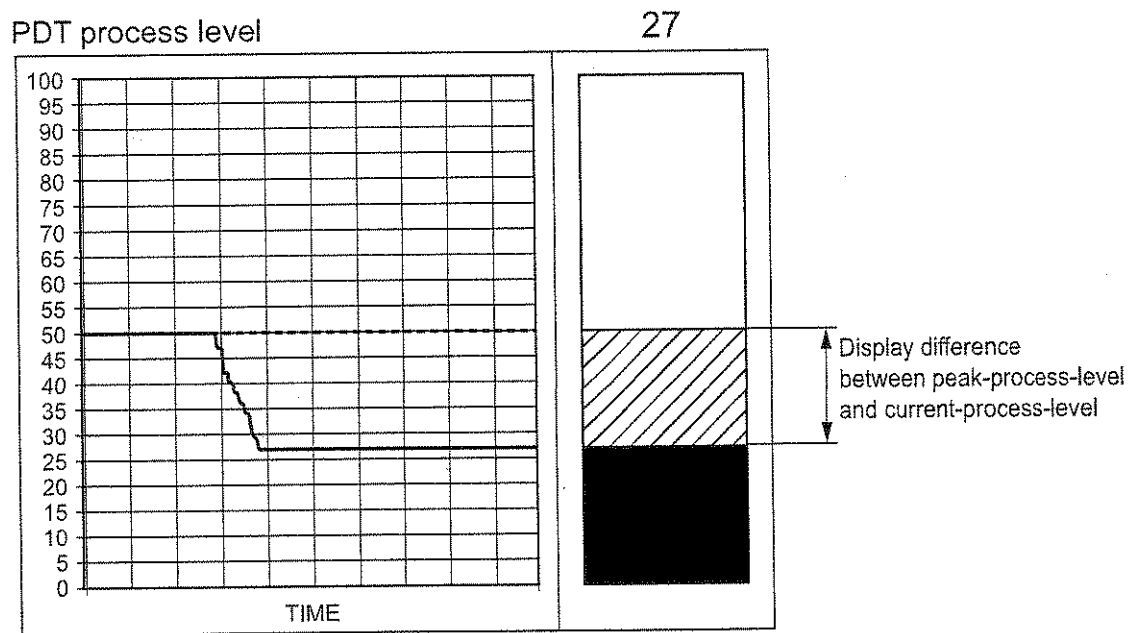


FIG.30

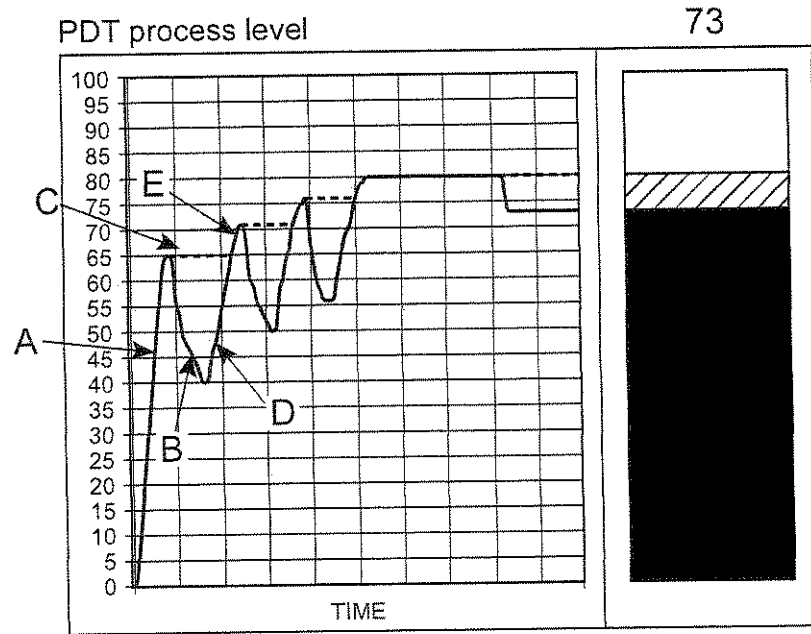


FIG.31

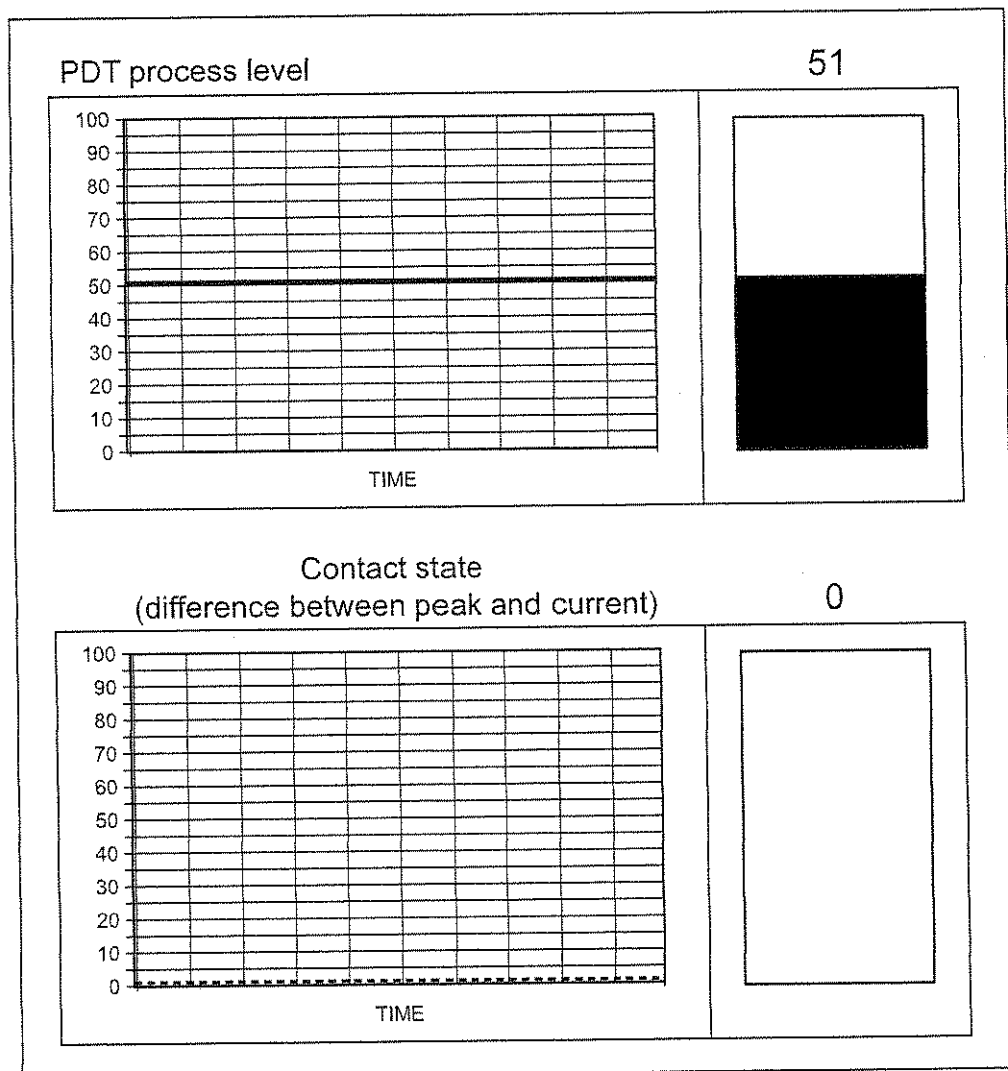


FIG.32

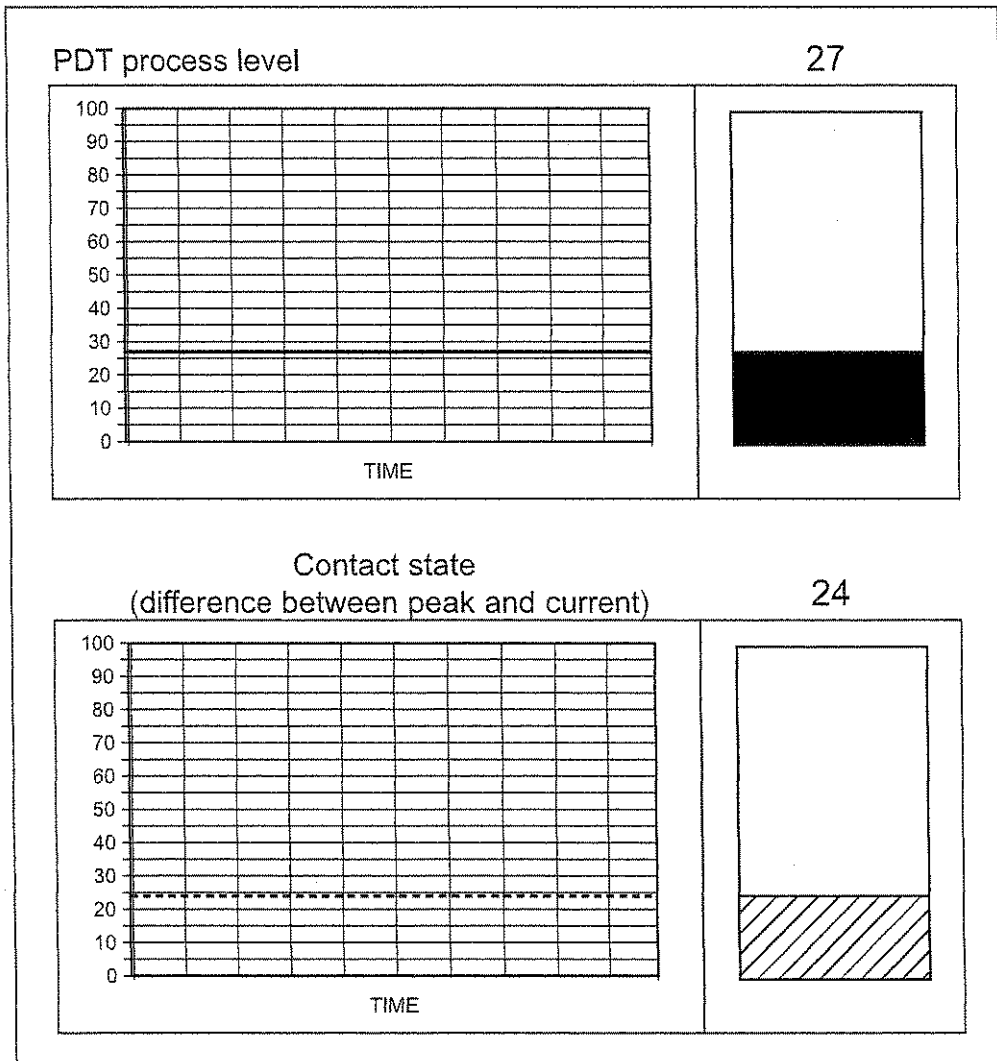


FIG.33

$$\frac{P_{fl}^b - P(t)}{P_{fl}^b - P_{fl}^t} \times 100 = \text{Contact level}$$

FIG.34

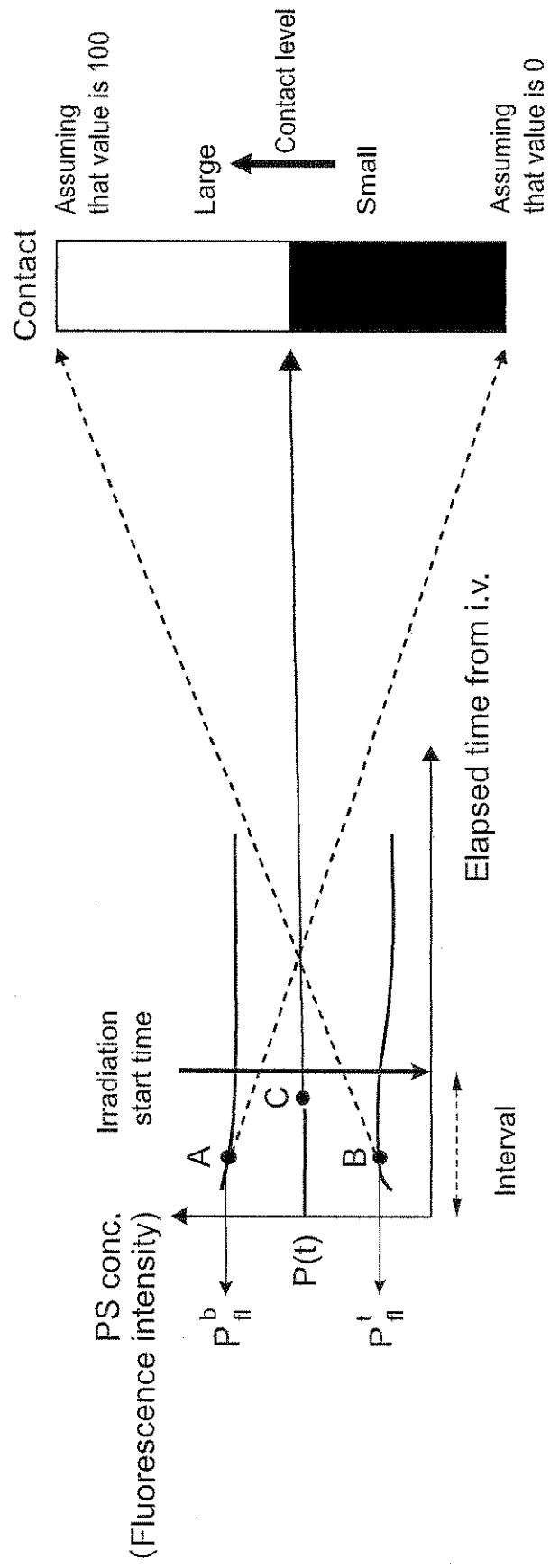


FIG.35

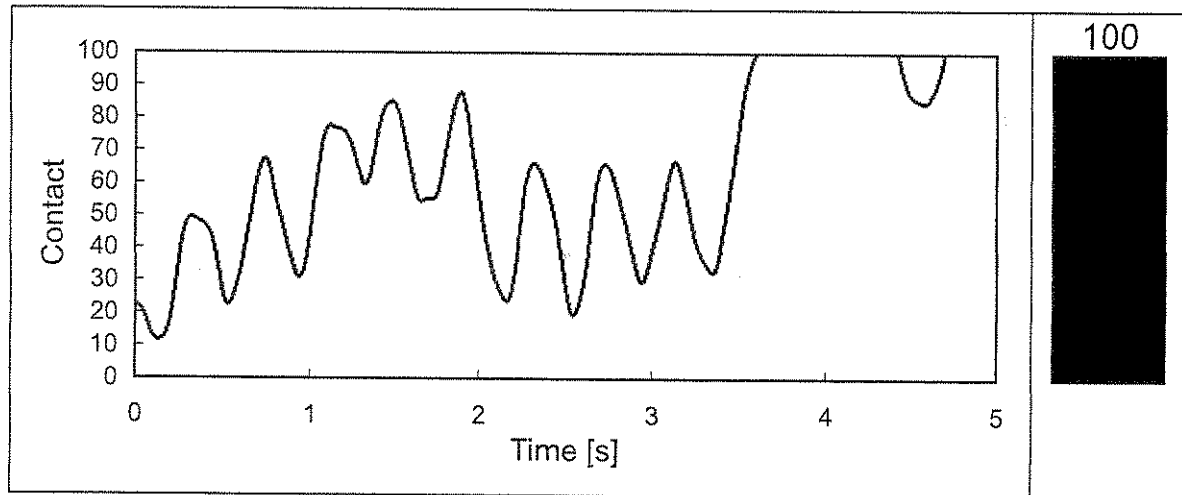


FIG. 36

