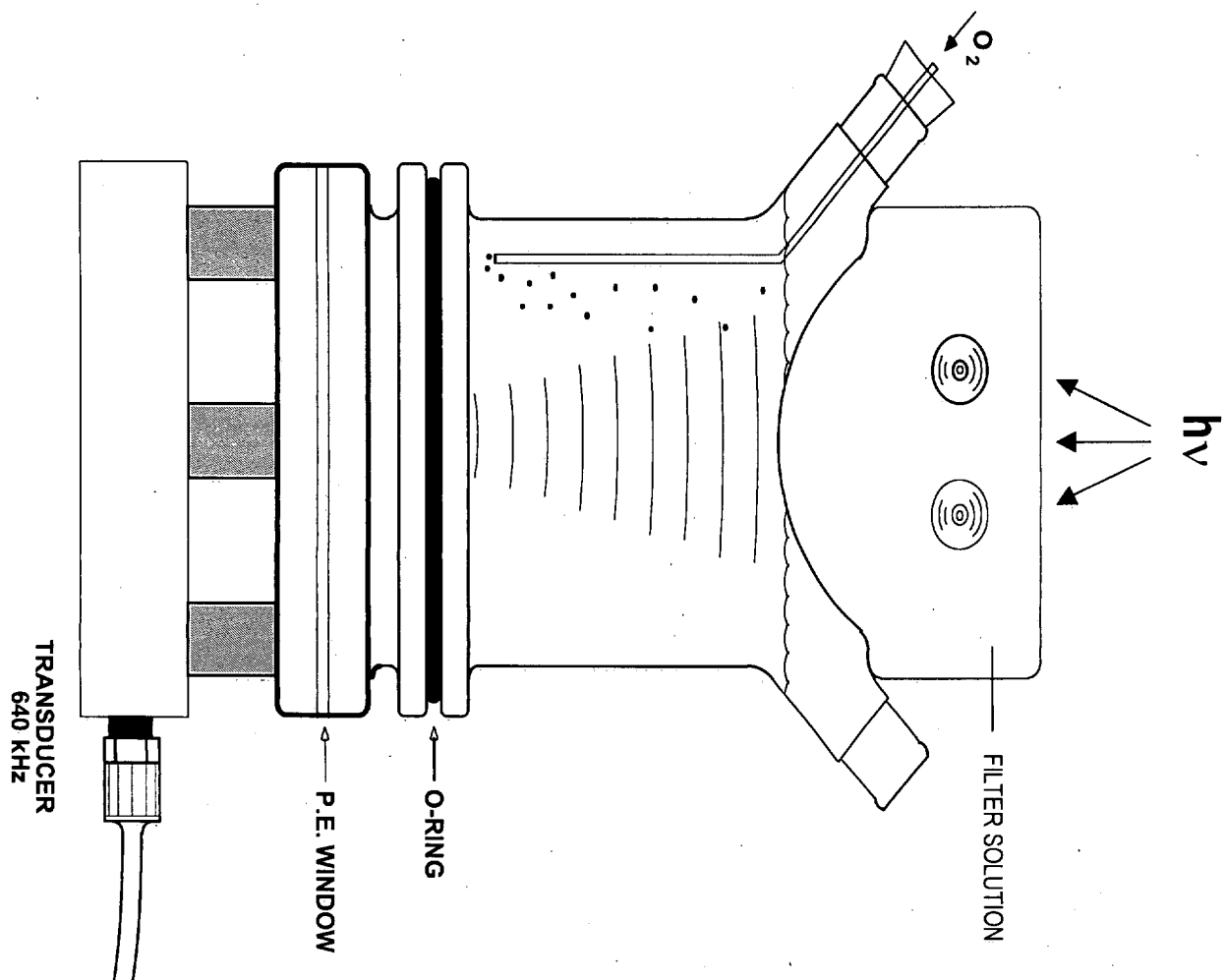
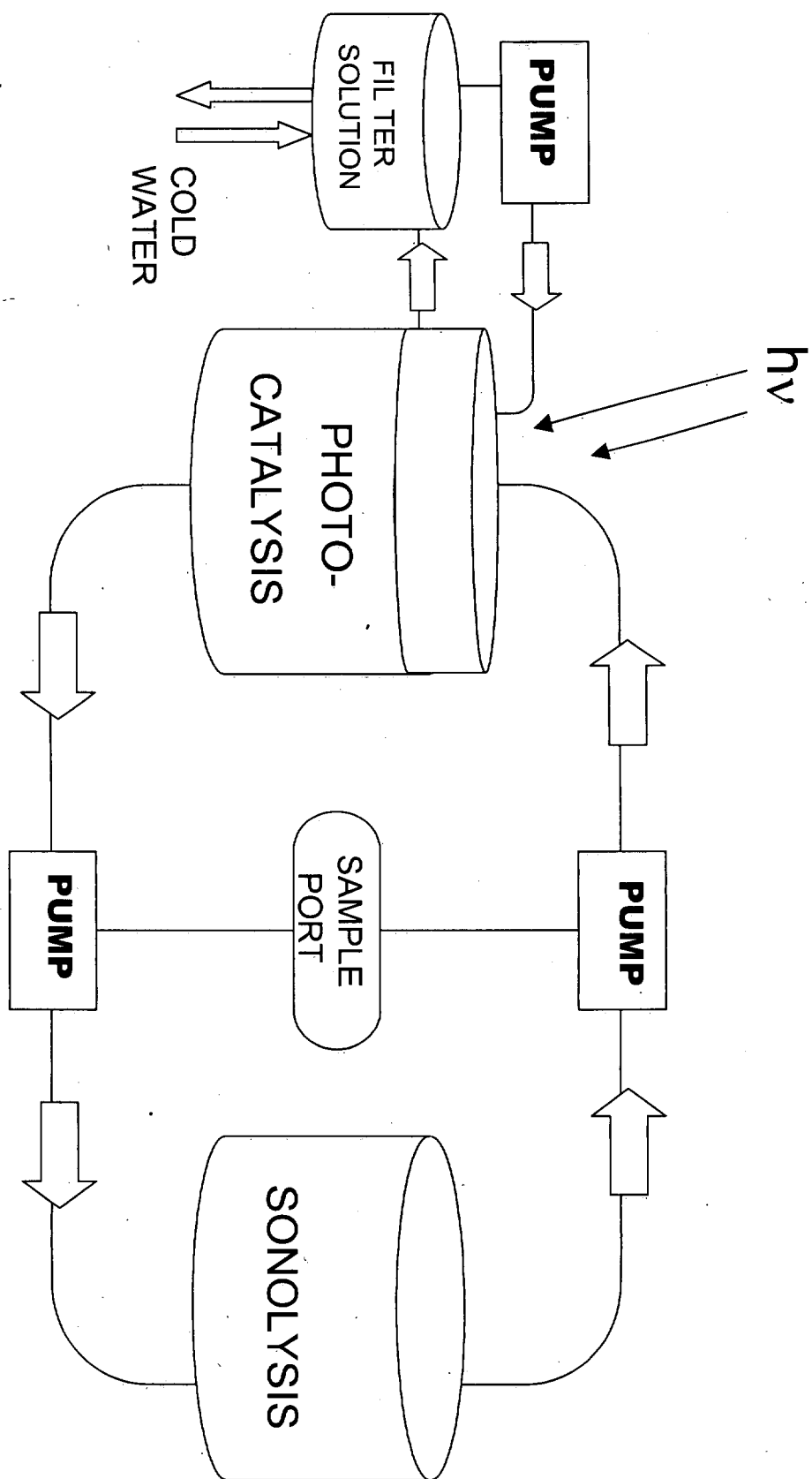


Supplementary Figures

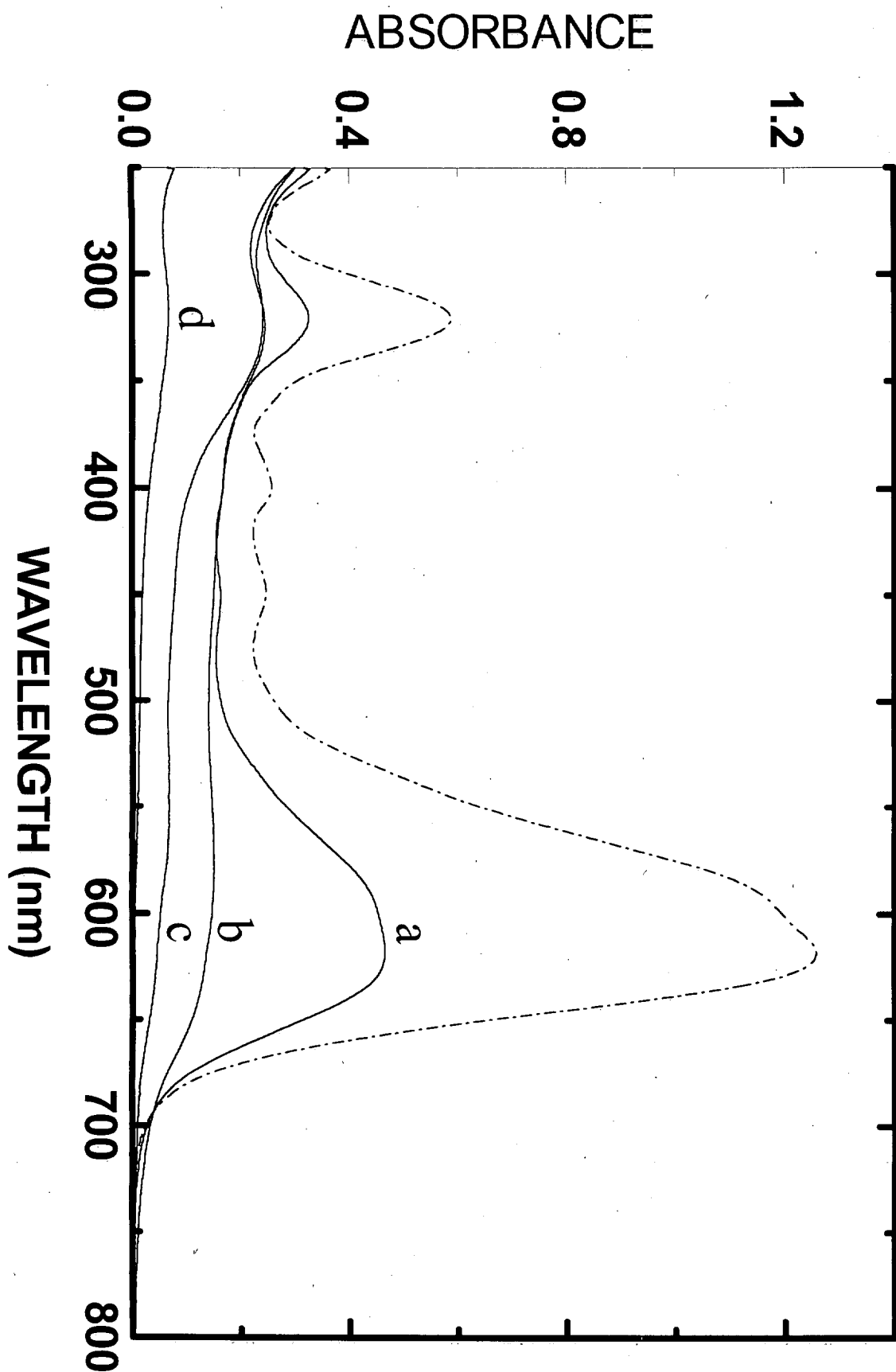
- Sup. Fig. 1A Reaction cell employed for sonolysis, photocatalysis and simultaneous combination of photocatalysis and sonolysis experiments.
- Sup. Fig. 1B Schematic diagram of the reactor configuration employed for the sequential combination of photocatalysis and sonolysis.
- Sup. Fig. 2 Absorption spectra of an aqueous solution of NBB recorded following 200 minutes of (a) photocatalysis, (b) sonolysis, (c) sequential photocatalysis and sonolysis and (d) simultaneous photocatalysis and sonolysis. The absorption spectrum of an aqueous solution of NBB prior to treatment is indicated by ---.
- Sup. Fig. 3 Kinetics of the degradation of aqueous solutions of NBB following 6 hours of simultaneous photocatalysis and sonolysis with various catalyst concentrations: (■) 0, (●) 0.05, (○) 0.2, and (□) 2.0 g TiO₂ per L solution.
- Sup. Fig. 4 Absorbance difference of an aqueous solution of NBB following 240 minutes of sonolysis (b) indicates the formation of stable intermediate(s) in the UV region. Similar intermediates are formed following 60 minutes of γ -radiolysis (a). The insert shows the growth and decay of this intermediate monitored at 275 nm (absorbance values have been corrected for the disappearance of the parent dye compound) during (c) sonolysis and (d) simultaneous sonolysis and photocatalysis.



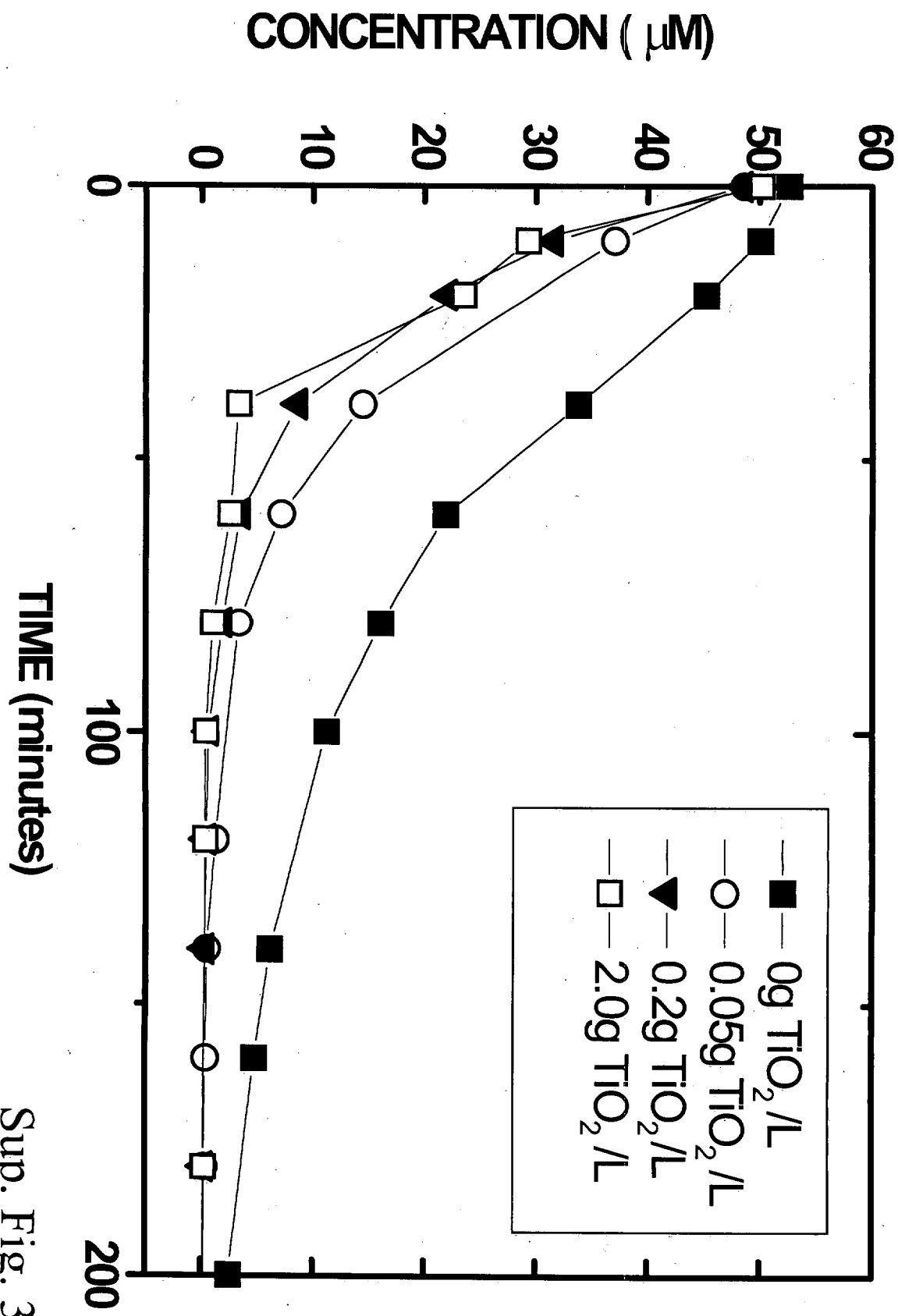
Sup. Fig. 1A



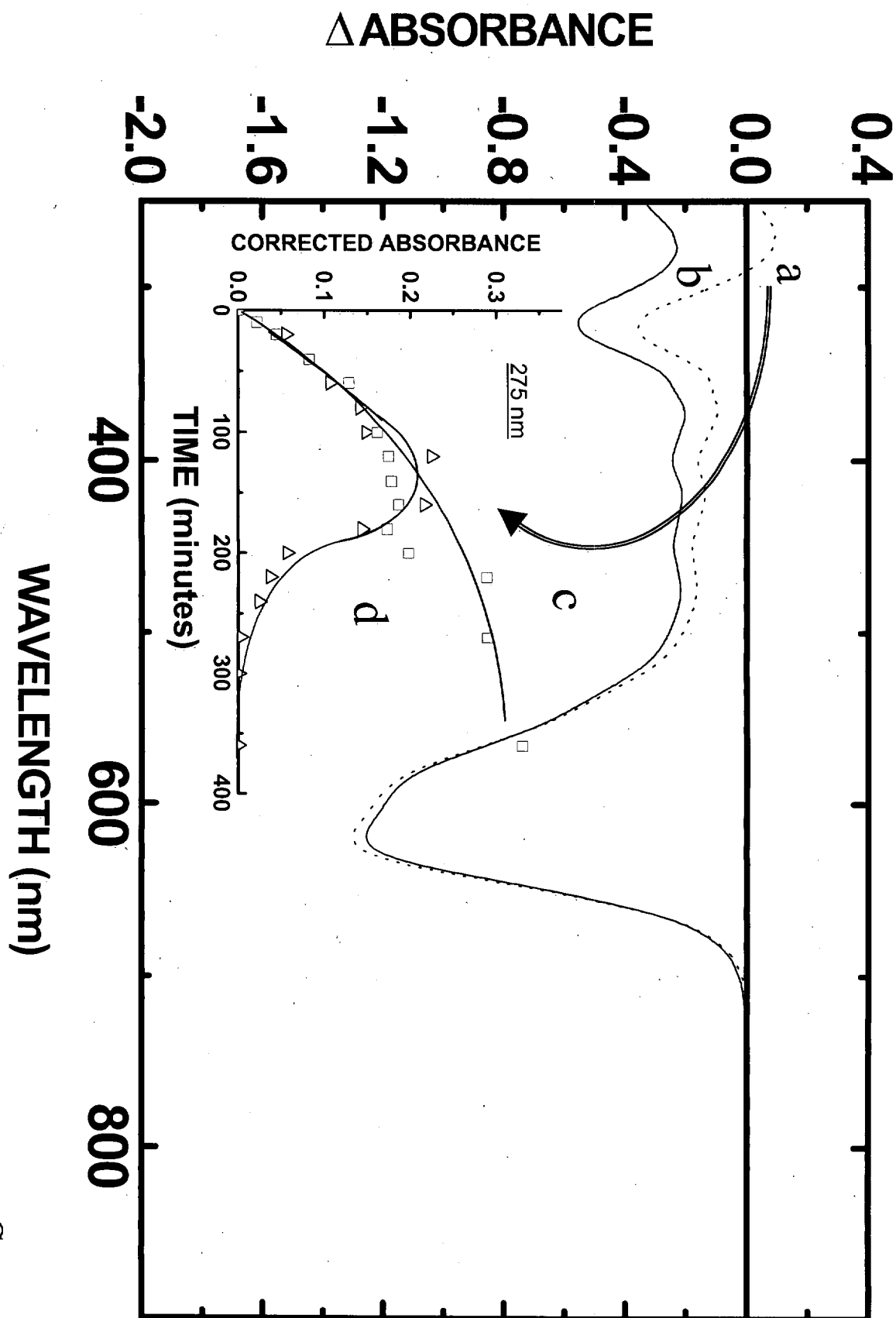
Sup. Fig. 1B



Sup. Fig. 2



Sup. Fig. 3



Sup. Fig. 4