

Figure 15.4 Absorption spectra of N3 dye and black dye represented by absorbance and light-harvesting efficiency, $1-T$ (T : transmittance): (—) N3 dye, (---) black dye

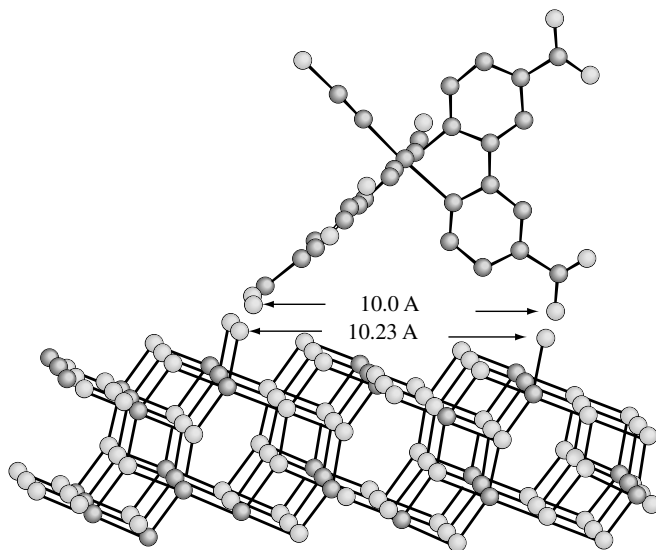


Figure 15.5 Anchoring structure of N3 dye adsorbed on the (101) surface of TiO_2 : the top is N3 dye and the bottom is TiO_2 . Reprinted with permission from © (2002) American Chemical Society

15.1.2.5 Counter electrode

Tri-iodide ions, I_3^- , formed by the reduction of dye cations with I^- ion, are re-reduced to I^- ions at the counter electrode. To reduce the tri-iodide ions, the counter electrode must have high electrocatalytic activity. Pt coated on TCO substrate ($5\text{--}10\ \mu\text{g cm}^{-2}$ or approximately 200-nm thickness) or carbon are usually used as the counter electrode.