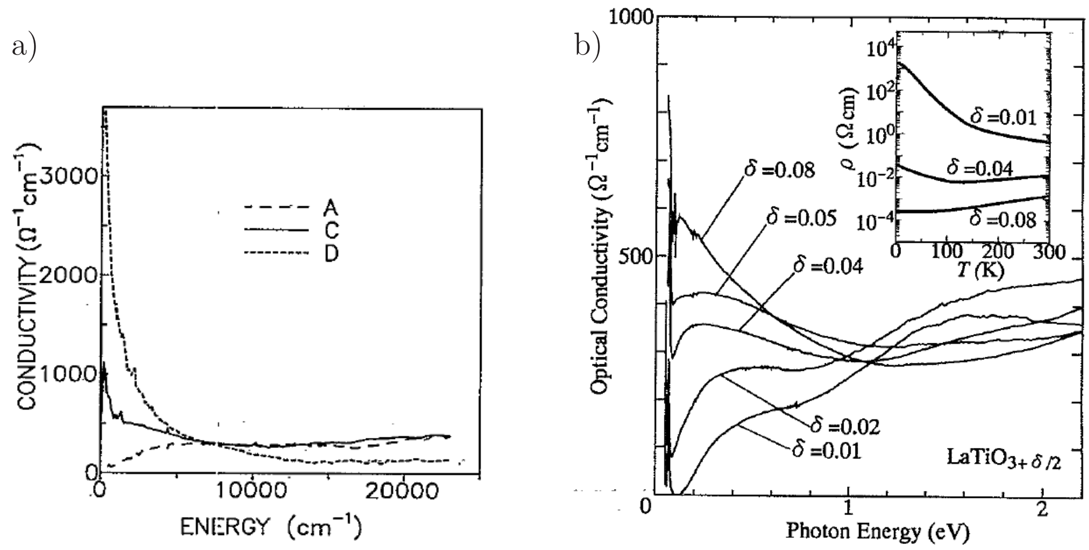

Figure 5.20: **a)** Optical conductivity $\sigma(\omega)$ for $La_{1-x}TiO_3$ with $x \approx 0.07$ for curve C and $x \approx 0.12$ for curve D at $T \approx 300$ K (Crandles et al., 1994). The measurements extend to $\omega \approx 3$ eV (1 eV $= (\hbar c)$ 8066 cm^{-1}). **b)** Optical conductivity $\sigma(\omega)$ for $LaTiO_{3+\delta/2}$ at $T \approx 300$ K (Okimoto et al., 1995). Inset: resistivity as a function of temperature.

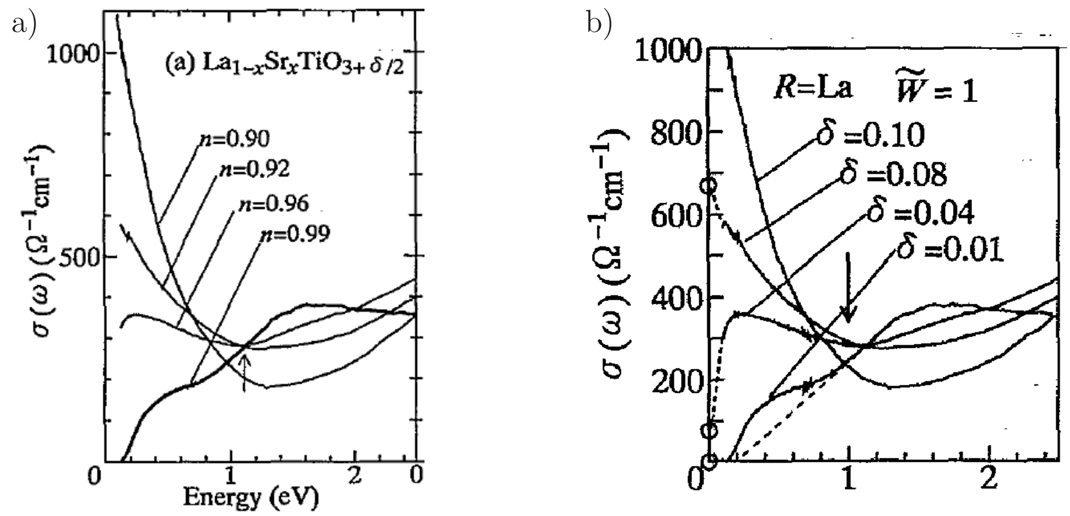

Figure 5.21: **a)** Optical conductivity $\sigma(\omega)$ for $La_{1\text{-}x}Sr_xTiO_{3+\delta/2}$ with $n = 1 - (x + \delta)$ at $T \approx 300$ K: here, the result for $n = 0.1$ is claimed to have a Sr content of $x = 0.1$ (Okimoto et al., 1995). **b)** Optical conductivity $\sigma(\omega)$ for $La_{1-x}Ca_xTiO_3$ at $T \approx 300$ K (Katsufuji et al., 1995). Here, the dashed lines extrapolate to the measured dc conductivity (open circles). Very surprisingly, the measured curves in a) and b) appear to be absolutely identical.