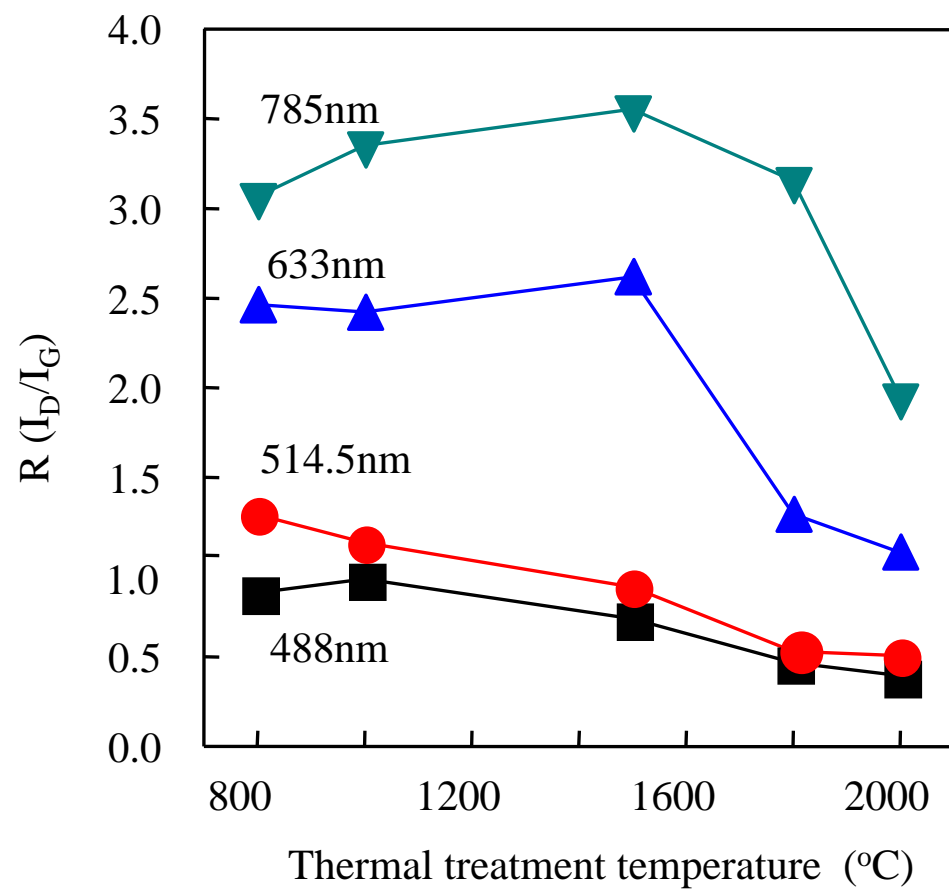


**Fig. S1** Variations of electrical resistivity, (a) in bulk (b) in an individual level, of undoped carbon nanotubes that are thermally treated at temperatures of 1000-2000°C in argon. Note that the bulk density of nanotube is 1.23 g/cm<sup>3</sup>.



**Fig. S2** Variations in the R value of carbon nanotubes which are thermally treated at 1000 and 2000°C in argon.