



FIG. 8.14 Contact resistivity as a function of annealing temperature for two gold thin films (350 nm thick) deposited ex-situ on YBCO films (from Xu et al. 1998). Annealing was carried out at atmospheric pressure in flowing oxygen for 10 min (after reaching annealing temperature). The optimum annealing temperature is about 50 °C to 100 °C higher than that for silver contacts; see Fig. 8.12. Similar to silver contacts, the initial contact resistivity of each contact depends mostly on the YBCO air exposure time and cleaning procedure before coating with gold.