ABSTRACT

There is provided an etching method in which bowing hardly occurs in a side wall surface of a hole in the formation of the hole by etching. The etching method includes: an etching step of bringing an etching gas containing an etching compound into contact with a member to be etched (400) having an etching object (carbon material) subject to etching by the etching gas, plasm etching the etching object, and forming a hole in the etching object. The etching compound is fluoro-dithiethane represented by Chemical Formula $C_xF_yS_2$, wherein, in Chemical Formula, x is 2 or more and 6 or less and y is 4 or more and 12 or less. The etching gas contains or does not contain at least one type among sodium, magnesium, aluminum, potassium, calcium, chromium, manganese, iron, cobalt, nickel, copper, and molybdenum, and, when the at least one type of metal is contained, the total concentration of all types of the metals contained is 100 ppb by mass or less.

FIG. 1