WHAT IS CLAIMED IS:

1. A polishing liquid for polishing a compound semiconductor substrate, the polishing liquid comprising:

an aqueous solution in which a permanganate and a water-soluble compound of a weak acid and a Group IV element are dissolved,

wherein the weak acid is selected from acetic acid, citric acid, carbonic acid, phosphoric acid, and oxalic acid, and

wherein the water-soluble compound is selected from zirconyl acetate, zirconyl citrate, zirconyl carbonate, zirconyl phosphate, and zirconyl oxalate.

2. The polishing liquid according to claim 1, wherein the polishing liquid has a pH of 3 to 7.

3. The polishing liquid according to claim 1, wherein a concentration of the permanganate is not less than 2.50 wt%, and a concentration of the water-soluble compound is 0.55 wt% to 5.50 wt%.