applying the coating fluid of any one of claims 1 to 6 to a surface of a semiconductor substrate as a coating, and

heat treating the coating to form a boron doped p-type diffusion layer.

8. The method of claim 7 wherein the semiconductor device is a solar cell.

9. The method of claim 8, comprising the steps of:

providing a n-type silicon substrate with a texture,

applying the coating fluid to one surface of the silicon substrate as a coating,

heat treating the coating to form a boron doped p-type diffusion layer,

forming a n-type diffusion layer on the other surface of the silicon substrate,

forming an antireflective coating on each of the diffusion layers, wherein the antireflective coating is silicon nitride, silicon oxide, titanium dioxide, zinc oxide or tin oxide, and

forming electrodes.

~~10. A semiconductor device which is fabricated by the method of claim 7, wherein the boron doped p-type diffusion layer has the CV value of the sheet resistance of up to 10%.~~

~~11. A solar cell which is fabricated by the method of claim 8 or 9, wherein the boron doped p-type diffusion layer has the CV value of the sheet resistance of up to 10%.~~