PELLICLE FILM, PELLICLE FRAME, PELLICLE, METHOD FOR PRODUCING SAME, ORIGINAL PLATE FOR LIGHT EXPOSURE, LIGHT EXPOSURE APPARATUS AND METHOD FOR MANUFACTURING SEMICONDUCTOR DEVICE

ABSTRACT

Provided are a pellicle film, a pellicle frame and a pellicle having a higher EUV transmittance. An exposure pattern plate capable of performing EUV lithography with the pellicle film, the pellicle frame or the pellicle, and a method for producing a semiconductor device, are provided. A pellicle film for exposure extendable over an opening of a support frame and having a thickness of 200 nm or less is provided. The film includes a carbon nanotube sheet. The carbon nanotube sheet includes bundles each including a plurality of carbon nanotubes, the bundles each have a diameter of 100 nm or shorter, and the bundles are aligned in a planar direction in the carbon nanotube sheet.

Fig. 1