METHOD OF FORMING POLYCRYSTALLINE SEMICONDUCTOR FILM

ABSTRACT OF THE DISCLOSURE

It is possible to prevent lowering in productivity of thin-film transistors with no decrease in performance of the transistors. Provided are depositing an amorphous semiconductor film on a substrate, a first irradiating the amorphous semiconductor film with an energy-rich beam in an atmosphere of a gas containing an inert gas as a major component with a specific amount of oxygen, to change the amorphous semiconductor film into a polycrystalline semiconductor film, and a second irradiating the polycrystalline semiconductor film with an energy-rich beam in an atmosphere of a gas containing an inert gas as major component with oxygen of an amount less than the specific amount.

(Fig. 1)