

Method for preparing a support substrate provided with a charge-trapping layer**Abstract**

The invention relates to a method for preparing a support substrate (1) provided with a charge-trapping layer. The method comprises introducing a monocrystalline silicon base substrate (2) into a chamber of a deposition apparatus and, without withdrawing the base substrate (2) from the chamber and while sweeping the chamber using a carrier gas, the following successive steps: - forming a dielectric layer (3) on the base substrate (2) by introducing a reactive gas into the chamber for a first time period; - forming a polycrystalline silicon charge-trapping layer (4) directly on the dielectric layer (3) by introducing a silicon-containing precursor gas into the chamber for a second time period subsequent to the first. The duration for which the dielectric layer (3) is exposed solely to the carrier gas, between the first time period and the second time period, is less than 30 seconds and the charge-trapping layer (4) is formed at a temperature strictly of between 1010°C and 1200°C.

Fig. 4