RADIATION DETECTOR, METHOD OF MANUFACTURING A RADIATION DETECTOR AND LITHOGRAPHIC APPARATUS COMPRISING A RADIATION DETECTOR

ABSTRACT

The invention relates to a radiation detector, a method of manufacturing a radiation detector and a lithographic apparatus comprising a radiation detector. The radiation detector has a radiation-sensitive surface. The radiation-sensitive surface is sensitive for radiation with a wavelength between 10 – 200 nm and/or for charged particles. The radiation detector has a silicon substrate, a dopant layer, a first electrode and a second electrode. The silicon substrate is provided in a surface area at a first surface side with doping profile of a certain conduction type. The dopant layer is provided on the first surface side of the silicon substrate. The dopant layer has a first layer of dopant material and a second layer. The second layer is a diffusion layer which is in contact with the surface area at the first surface side of the silicon substrate. The first electrode is connected to dopant layer. The second electrode is connected to the Silicon substrate.