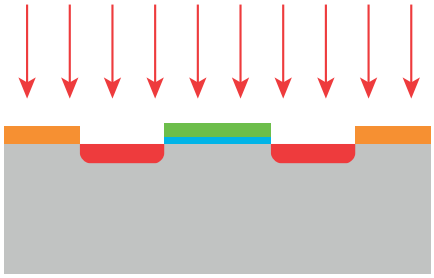
Implantation - Bombard the substrate with **trivalent ions** such as phosphorus. These ions do not pass through the **photoresist**-covered areas, and end up in the **p-type silicon**.



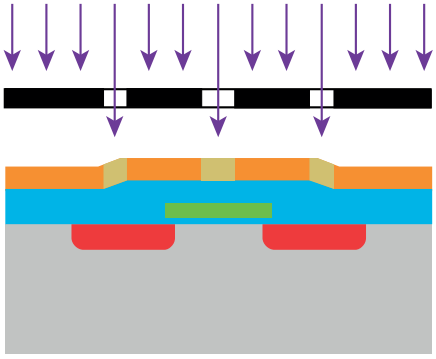
Dissolving - Remove the **photoresist**, which is now no longer required, with a solvent.

Heating - Heat the substrate. This will cause the inserted (phosphor) **ions** to move to the intended positions in the silicon lattice, and also diffuse further into the **silicon**.

CVD - Apply by CVD a layer of electrically insulating **silicon dioxide** to the substrate. This can be done, for example, by reacting gaseous silane (SiH_4) with oxygen, and precipitating the reaction product SiO_2 onto the substrate:
$SiH_4 + O_2 \rightarrow SiO_2 + 2H_2$.

Spin coating - Cover the substrate with a new layer of **photoresist** by spin coating.

Masking + UV exposure - Apply a mask above the wafer and expose the photoresist through the mask with **ultraviolet light**. The **UV-exposed part** becomes more easily soluble, the **non-exposed part** remains unchanged.



Dissolving - Remove the **more easily soluble photoresist** with a solvent, so that the **silicon dioxide** layer is exposed there.

Etching - Etch away the exposed silicon dioxide, for example wet-chemically with hydrogen fluoride, or with a plasma. The **photoresist** serves as a protective mask for the **silicon dioxide** that must remain present.