

Mask design and fabrication of LiSFET for light sensor application

Abstract

The usage of MOSFET is not limited as amplifier and switch only but it has great potential to become the sensors when sensing mediums which integrated on to MOSFET. This research is intended to study the combination of MOSFET and photoconductive material to perform as a single device Light Sensor MOSFET (LiSFET) using standard lithography process. Photolithography (also called optical lithography) has long been used to transfer circuit patterns from a template called photomask (or simply mask) on to silicon wafers during integrated circuit (IC) fabrication. When a light source is used to project the mask image onto the wafer, the image quality is often affected by the performance of the imaging system (also called exposure system).