Photoconductivity, the increase in the electrical <u>conductivity</u> of certain materials when they are exposed to <u>light</u> of <u>sufficient</u> energy.

Photoconductivity serves as a tool to understand the internal processes in these materials, and it is also widely used to detect the presence of light and measure its intensity in lightsensitive devices.

What is an example of photoconductivity?

Classic examples of photoconductive materials include: photographic film: Kodachrome, Fujifilm, Agfachrome, Ilford, etc., based on silver sulfide and silver bromide. the conductive polymer polyvinylcarbazole, used extensively in photocopying (xerography);

Intrinsic photoconductor materials include

lead sulfide, lead selenide, cadmium sulfide, and mercury cadmium telluride, while germanium and silicon are the usual hosts for extrinsic photoconductors with impurities such as arsenic, copper, gold, and indium.

## What is photoconductive cell?

A photoconductive cell is a two-way terminal semiconductor device where the terminal resistance varies linearly compared to the intensity of the incident light. Thus photoconductive cells are also known as photoresistive devices. There are two primary materials, cadmium sulfide as well as cadmium selenide.

What is the process of photoconduction?

Photoconductivity is an optical and electrical phenomenon in which a material become more electrically conductive due to the absorption of electromagnetic radiation such as visible light, ultraviolet light, infrared light, or gamma radiations.

## Where are photovoltaic cells made?

More than three-quarters of PV modules are made in China. It currently costs 30-40% more to manufacture a solar panel in the US. There are about 20 US-owned, US-based solar module and shingle manufacturers, with 10 based in California, and others based in New York, Ohio, Texas, Indiana, New Jersey, and Arizona. 19 Oct 2022