

Photoelectric properties of P-CuI/N-Si heterojunction



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This paper uses air iodination to grow P-CuI thin film on N-type Silicon substrate. In this way, we can get a P-CuI/N-Si heterostructure diode, we will analyze its crystal structure, photoelectric and diode properties. A sunlight simulation light will be used to a source of light, when measuring I-V curve, so we can evaluate conversion efficiency and fill factor FF. Then, we use C-V to measure the junction capacitance of the heterostructure diode, and use PPC we can measure our sample's rise time and fall time in different frequency. In this paper, we can see the way we use to grow CuI is easy, and cheaper than other ways like CVD or CVT, but the quality of thin film is very well, and we also can know it has very well properties of photoelectric in different laser. We try use this sample to make a Position Sensor

Biography:

I'm Chi-Cho Wang, a graduate student at National Changhua University of Education. Our laboratory primarily measures the optoelectronic properties of semiconductors. We primarily use metals such as gold, silver, and copper as the base films and use elements like selenium, sulfur, and iodine to produce semiconductors, which we then fabricate into solar cells. Therefore, we measure the properties of many different materials. And our final goal is to make solar cell and position sensor.