

Shottky Diode Formation Between Polyaniline and P-Type Silicone.

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Abstract

Shottky diode has been fabricated with the electrochemical polymerization of aniline on P-Si. The diode characteristics have been studied with polymerization time and the electrical properties of conducting polymer diode utilizing (Polyaniline-Rhodamine B).Blend are determined in room temperature several parameters have been calculated from the (I-V) characteristics of the fabricated includes saturation current, series resistance, ideality factor, threshold voltage, and all these variables were found to be strongly dependant on polarization time.

Introduction

A diode is a device that only allows current to flow in one direction. One of the most known diode is a PN junction diode which can be defined as an asymmetric diode were fabricating diodes of this type is very coasty and requires a long turn around time. It also requires precise machines and packaging that in some way prevent. Contamination by the outside environment with such an intensive process, the cost will increase as the machines to process the semiconductors need to become more precise. This result is increased price per diode being created in the foundry. The cost will overwhelm the semiconductor industry, and a more cost ^(1, 2).Another