FABRICATION AND CHARACTERIZATION OF SILICON SCHOTTKY DIODES AS PHOTOVOLTAIC CELLS

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A number of Schottky diodes were fabricated by vacuum evaporating aluminium on Silicon wafers. These were investigated for their diode Characteristics and photovoltaic performance. A technique has been developed for creating Ohmic back contacts of aluminium on silicon. An approximate estimation of the interfacial layer Oxide thickness from the Oxidation rate equations was attempted.

The open circuit voltage and the fill factor were reasonable while the short circuit current was low. Relatively higher efficiencies at low illuminations indicated too thick on Oxide interface, that could not be controlled.