Investigation for an equivalent model to study solar cell characteristics

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Solar cells were modelled according to the two diode model by using PC1D software. Then the light and dark current curves were obtained and curves were fitted with experimental data. Since the PC1D software doesn't fit the dark current curves accurately, a separate programme was built by using Root (an object oriented data analysis frame work) and solar cell parameters such as diode ideality factors, saturation currents and shunt resistances were extracted from the new programme.