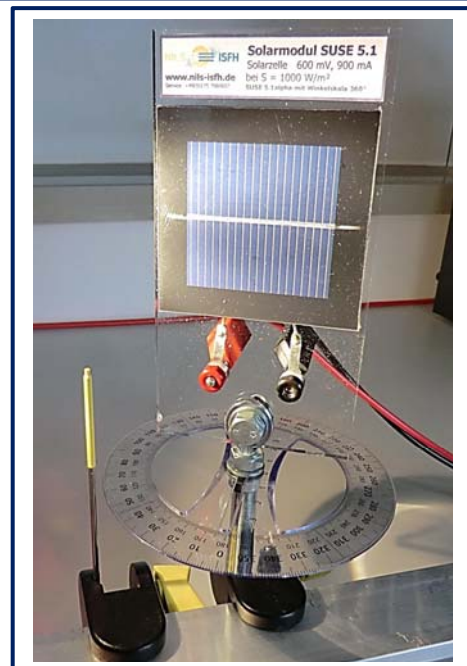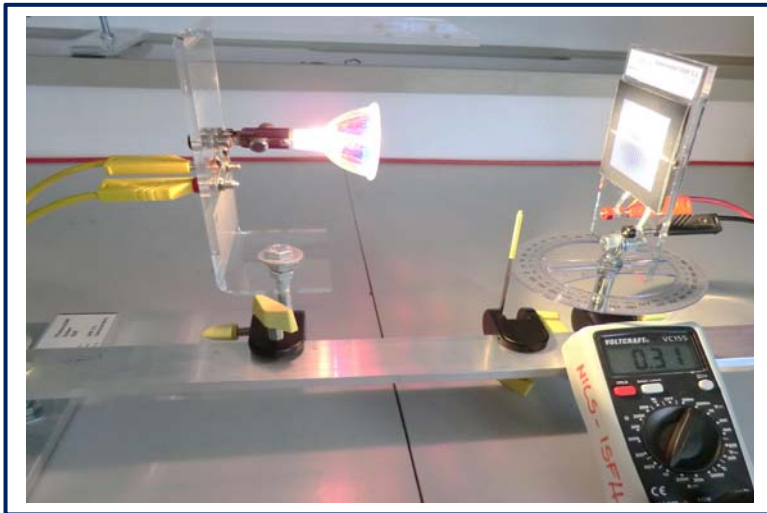# The solar module SUSE 5.1alpha
Solar module with solar cell 0.6 V/900mA with support rod and angle scale 360° pivot- mounted for the measurement of the angle dependence of V,I,P

The photo in the upper right corner shows the solar module SUSE 5.1alpha on the optical bench SUSE 5.0. On the top surface there is the solar cell SUSEmod2 with 2 connection jacks, below it the protractor 360°, the module is pivot-mounted on a support rod 8 mm.

With the metal rod (measuring tip) on the left-hand side (with yellow tip) the angular position against the incoming light irradiation can be read from the protractor.

In the picture at the top the measuring setup is shown. On the optical bench SUSE 5.0 there are, seen from left to right, the halogen spot lamp SUSE 5.15 and the solar module SUSE 5.1alpha with the yellow measuring tip.

With the multimeter the short-circuit current is measured, here I = 0.31 A. To measure the open circuit voltage V, the meter is just switched to another mode. Now the module can be rotated in angular steps and pairs of measurement values I and V from the angle can be read.

Simultaneously the expectable value can also be calculated theoretically, the dependence is a cos function, with a rotation of 60° the current is cut in half.

This effect is shown in the picture to the right: I decreases to half the original value (0.16 A, 0.31 A before). The power P can be calculated from V and I.