

Figure 16.9 Typical narrow-band interference filter-based spectral responsivity measurement system

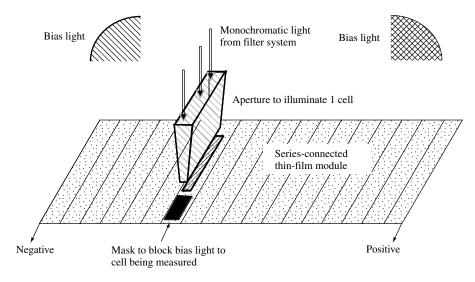


Figure 16.10 Apparatus for measuring the spectral responsivity of a single cell in a multicell module

The solution to the problem of measuring $S(\lambda)$ of a single cell in a module is the following sequence of steps [147]:

- 1. Bias the module with light to simulate "1 sun."
- 2. Forward-bias the module to the measured module open-circuit voltage $(V_{\rm OC})$ under the bias light in the previous step multiplied by (n-1)/n, where n is the number of cells in series. Another procedure is to apply monochromatic light at a wavelength that the