**Application Note** 



No. 260PR0120-E

## Grazing angle reflection attachment

In the past, we offered the RAS-200 which is mounted horizontally on an XY stage. We now want to introduce our newly developed Cassegrain Micro-GAR (RAS-500) Our Cassegrain Micro-GAR (RAS-500) makes it easy to check the measurement area of the samples, and its strong points include its ability to set large samples.

Figure 1 and Figure 2 respectively show the optical system of the Horizontal Micro-GAR (RAS-200) and the Cassegrain Micro-GAR (RAS-500).

The Cassegrain Micro-GAR (RAS-500) employs a reflective Cassegrain mirror, enabling the measurement of large samples because it is possible to make measurements simply by placing a sample on the XY stage. A x 16 reflective Cassegrain mirror is used to check the measurement location, and then it is slid to switch it into the Cassegrain Micro-GAR (RAS-500) and measurements are made.

Figure 3 shows an example of measurement of a thin PMMA (poly methyl methacrylate) film of 200 to 300 Å using a  $0^{\circ}$  polarizer (P polarization) and a  $90^{\circ}$  polarizer (S polarization).

Sensitivity is increased by using only parallel polarization on the plane of incidence.

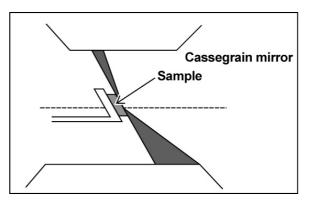
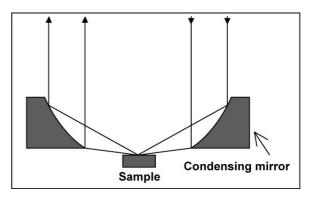


Fig. 1 RAS-200





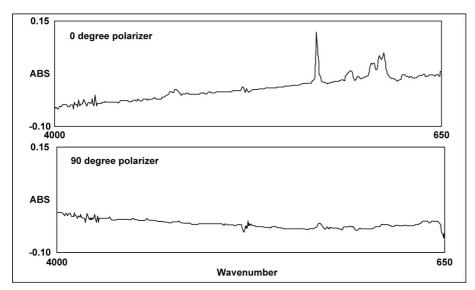


Fig. 3 PMMA Measurement by RAS-500