

What Gateway ATR accessories are available?

Gateway™ ATR is a six-reflection horizontal ATR sampling system designed to fit into a wide range of FTIR spectrometers. Samples to be analyzed can be either liquid or solid depending on which top plate assembly is being used. Sufficient sample is required to cover a crystal sampling surface area of at least 72mm long by 10mm wide.

The parts that go to make up the Gateway™ ATR Kit system P/N GS11165, start with the incompartment optical unit P/N GS11170. The optical unit is provided with an appropriate Benchmark™ type baseplate for attaching to the spectrometer. You must specify which spectrometer when ordering this part number to receive the correct baseplate.

The Gateway™ ATR Kit system is completed by a choice of trough top plate with 45° angle ZnSe crystal P/N GS11166 for liquids and pastes, or a flat top plate with 45° angle ZnSe crystal P/N GS11133 for solids and films. These top plates are compatible for use on the optical unit and are specifically designed for use at ambient temperatures. For the flat top plate you need a clamp kit P/N GS11171 (included with P/N GS11165) that affixes to the P/N GS11170 Gateway ATR optical unit. This allows for the necessary load/pressure to be applied to make good contact of a solid sample with the ATR crystal.

For the study of samples at elevated temperatures up to 200°C, there is an additional option of the electrically heated trough top plate with 45° angle ZnSe crystal and dedicated temperature controller P/N GS11155. The plate is an open trough design similar to the standard trough top plate P/N GS11166, whereby a liquid is simply poured in to cover the crystal. The thermostabilised open trough top plate P/N GS11139 is similar to the P/N GS11155 top plate, but relies on a thermocirculating fluid for heating rather than from an electrically powered temperature controller.

An alternative type of heatable top plate for Gateway™ ATR is the 550 microliter thermostabilized flow through top plate assembly with 45° angle ZnSe crystal P/N GS11118. A liquid sample can be flowed across the sampling surface of a ZnSe crystal in an enclosed chamber. The outer casing can be heated by the flow of a thermocirculating solution surrounding the sample/crystal area. The temperature achievable is dependent upon the thermocirculating fluid being used i.e. water or oil, etc. A liquid sample pumping system can be used for delivery of the liquid sample via peristaltic type flow through flexible tubing attached to the sample ports on the flow plate. The sample flow through the thermostabilized flow through top plate is rated up to a 60psi maximum.

All of the Gateway™ ATR top plates are supplied with a 45° angle ZnSe crystal P/N GS11145, but alternative germanium P/N GS11147 and silicon P/N GS11146 crystals at a 45° angle are also available. They can be supplied on their own for placement into the trough or thermostabilized top plates, but they must be pre-affixed into a flat top plate assembly.

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