

Thermoregulated cryostat device for ellipsometric studies is a double-circuit, vertical structure with a vacuumed cryostat housing (12) located below in the form of a cryogen feeder tank (13) with a cryogen collection and supply tube with a bottom of a heat exchange chamber mounted on top of the feeder tank, which is a working chamber, and a test sample holder with a heater is installed on it, which is fixed in the feeder tank in such a way that the bottom of the chamber has direct contact with the cryogen, and the upper part - with the test sample, a temperature sensor (2), under the sample and an optical window above it, and a heater wound on the side surface. The chamber has two symmetrical side horizontal optical channels in the plane of incidence and specular reflection from its surface of the optical beam at certain angles, and a vertical channel is located above with a plane of incidence of the optical beam perpendicular to the sample. The cryostat feeder housing with a heat exchange chamber (5) located therein, which consists of a copper heater (4), the cavity of which is densely packed with copper shavings, laid on the side surface of the housing, to which is connected a cryogen intake and supply tube, which is made of a low-thermal conductivity material. The feeder tank is suspended on the cryogen filling tube and the level indicator sensor input tube to the cryostat housing, where a copper screen (28) is located, the vacuum cavity has, like the screen, windows. The sample under study (16) is fixed to the heat exchange chamber in a horizontal plane.