

The invention relates to interferometry, in particular to holographic methods for studying petroleum products.

The holographic method for studying petroleum products consists in that it is illuminated the object in the form of a pan with the petroleum product with a plane-parallel laser radiation beam, is focused the beam with the help of objective lens in one point, in which is placed a diaphragm with a vertical aperture, is registered the hologram of the original object in the absence of laser radiation with the maximum opening of the diaphragm aperture over 4 mm, is illuminated the registered hologram with a reference beam, is projected onto the matrix of the digital camera the regenerated image of the original object, at the same time when the object is illuminated with the focused radiation beam, a thermal lens is formed in the volume of the petroleum product, and when the aperture of the diaphragm is closed to 0.01 mm, a beam of the luminescence signal is projected onto the hologram, which upon passage through the hologram splits into a luminescence spectrum, the image of which is processed in a graphical editor to obtain the spectral dependence of luminescence.

Claims: 1

Fig.: 4