

SAMPLE-HOLDING ELEMENT, ANALYSIS SET, AND METHOD FOR ANALYZING A
LIQUID, IN PARTICULAR A COOLING LUBRICANT EMULSION

Abstract

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The invention relates to a sample-holding element (20) for a liquid sample for the simultaneous analysis of three or more chemico-physical parameters of the liquid by means of an analysis device. The sample-holding element (20) has a sample-holding chamber (31), which can be filled with the liquid, wherein the sample-holding element (20) has at least
10 three measurement points (24, 25, 26, 26N, 27) arranged adjacent to each other, which are distributed over the sample-holding chamber (31), wherein two of the measurement points (24, 25) are a photonic measurement point (24) and a refractive-index measurement point (25) and wherein the at least one further measurement point is selected from the group comprising at least a pH measurement point (26), a conductivity measurement
15 point (27) and a germ measurement point. The sample-holding element (20) is a planar element (20) that is double-walled at least in some sections and that has plates (30, 30'), which are arranged on each other in a plane-parallel manner and are connected to each other at the edges thereof at least in some sections, wherein the sample-holding chamber (31) is formed as a planar gap between the plates (30, 30') and the distance between the
20 plates (30, 30') is just so large that the liquid sample can be subjected to the capillary effect between the double walls (30, 30'). The measurement point (25) for measuring the refractive index has a refraction structure (25', 25'') on one of the plates (30, 30') in a region predefined therefor. The invention further relates to an analysis device set having the sample-holding element (20) and having an analysis apparatus (1) and to a method for
25 the simultaneous analysis of three or more chemico-physical parameters of the liquid.

FIG. 1