

Bubble Pressure Tensiometer BP100

Surface tension measurement for rapid wetting processes

Speed

Printing – bonding – spraying – cleaning: processes such as these require surfactants that are already effective in fractions of a second – and an instrument that can record their effectiveness. The Bubble Pressure Tensiometer BP100 determines the dynamic surface tension as a function of the surface age in a time window from only 5 milliseconds up to 100 s.

Technique

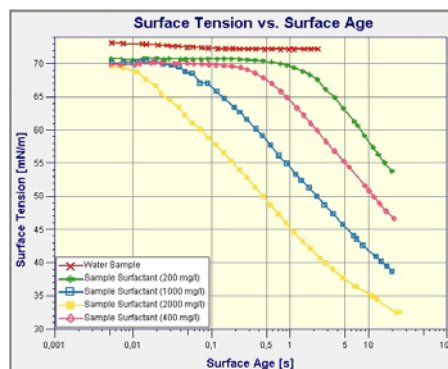
A software-controlled flow of compressed air emerging from a capillary produces air bubbles in the sample. A sensitive pressure sensor determines the maximum pressure during bubble formation, from which the surface tension can be obtained. Thanks to its built-in compressor the instrument does not need an external compressed air connection. Thermostatted measurements are possible without any problems.

Knowledge

In addition to the time-dependent surface tension, the measurement also supplies the stationary value according to Hua & Rosen. Diffusion and adsorption coefficients can be calculated from surfactant concentration series – these are important parameters where the mobility of surfactants is concerned.

Comfort

After a minimal preparation period the measurement is carried out fully automatically up to data output in the form of a plot. With a mouse-click measuring parameters, results and evaluations appear in a comprehensive report. Thanks to the LabDesk software platform for all KRÜSS tensiometers data from other instruments can be included.



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