Dynamic contact angle measurement offer

We offer contract measurements of wettability of the solid surfaces using dynamic Wilhelmy method – determination of the surface tension, surface energy and its components including wettability of powder materials.

- **Wettability measurements of solid materials,** which can be adjusted into the form of plate with dimensions max. 75x75 mm and max. weight 100 g, including fibres with diameter up to 0,1 mm.

- **Surface energy determination of solid materials** based on dynamic contact angle measurement in standardized set of liquids allowing to determine polar and nonpolar component total value of surface energy including acidity or alkalinity of the surface, or appropriate components of the surface energy.

- **Surface energy determination of the powder materials** using standard Washburn method, eventually determination of the wettability of the powder materials assembled in thin layer (only for water).

- **Measurements of the surface tension of the liquids** using Wilhelmy plate method (glass or Pt plate).

- **Determination of the critical micelle concentration** (CMC) of the tensides (surface- active compounds) from surface tension measurements.

    - all the measurements are carried out with high accuracy given by high sensitivity of the used scales (1 µg) and with high accuracy of positioning (0,1 µm)

    - all the measurements can be also carried out in the regime of temperature control in the range +5 až +70°C

    - possibility of measuring in the inert atmosphere (e.g. N_2).

Examples of the applications:

- Wettability measurements of the real materials (e.g. plastics) in connection with their wetting by liquids used for their surface treatment (colours, cleaning solutions).

- Wettability measurements of the powder anorganic pigments in solvent system used for final application, evaluation of the final treatment influences.

- characterization of the tensides and their mixtures - determination of the CMC from surface tension measurements.