Viscosity of Blood Serum

The more viscous the blood, the harder it is to pump which can cause different kinds of health risks. The Lovis 2000 M/ME microviscometer in combination with a DMA M density meter can determine the dynamic and kinematic viscosity of the blood plasma extremely quickly and precisely, the decision about necessary therapies can be carried out within minutes.

Plasma Viscosity for Therapy Management

Plasma viscosity measurements play an important role in the therapy management prone to e.g. hyperviscosity syndrome. Symptoms typically arise at a plasma viscosity higher than 3 mPa.s. The knowledge of the plasma viscosity value determines the necessary therapy steps.

Plasma viscosity reveals also information on the effectiveness of several therapies, for instance haemodilution therapy. Measuring the viscosity of the plasma and the viscosity of the used substance makes it possible to determine the correct medication for each patient.

Plasma viscosity is also used in most epidemiological studies as a predictor of cardiovascular risk. Plasma viscosity is influenced by most cardiovascular risk factors e.g. obesity, diabetes, hypertension, tobacco,…

Additionally many vitally important medicinal products and drugs are made of plasma proteins. During production of these proteins viscosity is measured as one quality control parameter among others.

With the Lovis 2000 M/ME microviscometer in combination with a DMA M density meter the dynamic and kinematic viscosity of the blood plasma can be determined very quickly and precisely. For higher sample throughput it can also be combined with a Xsample sample changer!

Lovis 2000 M/ME – User Benefits

- High degree of modularity with other Anton Paar instruments
- Combination with DMA M density meter for automated calculation of dynamic and kinematic viscosity
- High degree of automation
- Combination with Xsample sample changer for high sample throughput
- Small size of measuring capillaries – low sample volume
- Two different measuring distances (short and long) – time saving measurements
- Measurements over a wide viscosity range (0.3 to 10000 mPa.s)
- Peltier temperature control – quick and precise temperature control
- Closed measuring system – avoid evaporation and contamination

Good to know

The Lovis 2000 M/ME microviscometer can be combined with a Xsample sample changer for automatic measurements with high sample throughput.

Other Anton Paar instruments relevant for the application

- Multiwave 3000 microwave digestion system
- MCR modular compact rheometer

Do you have any questions?

Contact Anton Paar directly:
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