

## Viscosity Profile of Protein Solutions

### Application Proof

Viscosity profiles are used to determine the effects of shear rate (deformation rate) on the structure of a material. Shear rate effects are manifested as an increase or decline in viscosity in response to shear rate change. Structure plays an important role in protein activity. In addition, for protein solutions that are used in certain biomedical applications, viscosity analysis at body temperature (37 °C) provides important information about how the protein solution will flow in the blood stream.

#### Instrument/Run Parameters

**Manufacturer/Model:** ATS RheoSystems/  
Stresstech Rheometer

**Measuring System**  
**Geometry:** 40 mm Parallel Plates

**Shear Rate Range (1/s):** 100 - 600

**Temperatures (°C):** 25, 37

#### Sample Parameters

**Sample Type:** Protein solutions

**Pretreatment:** None

**Sample Size:** 1 mL

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