

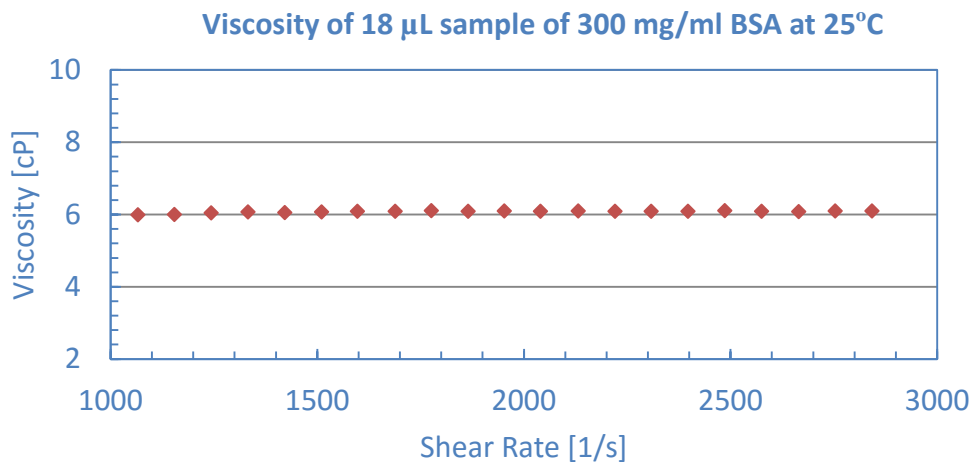
20 Different Shear Rates with 18 μ L of Sample!

In addition to the low sample volume consumption, VROC® initium features sample retrieval, allowing the use of a small quantity of sample for repeated tests. This functionality allows for the characterization of sample behavior over a wide range of shear rates with just a drop! For this application brief, we tested a single 18 μ L sample of Bovine Serum Albumin (BSA) in water at 20 different shear rates!

The test was conducted as follows:

1. 25 μ L of BSA (302 mg/ml in water) was loaded into an 11 mm vial with a 300 μ L small-volume insert (Wheaton)
2. The autosampler loaded 18 μ L of the sample into the VROC® initium unit
3. VROC® initium unit performed multiple shear rate measurements on the sample, retrieving the sample when required
4. VROC® initium performed self-cleaning at the end of the test with preset protocols

Overall, 18 μ L of BSA was consumed to test at 20 different shear rates, from 1066 to 2840 1/s! The BSA sample exhibits Newtonian behavior across the range tested (See Figure), with an average viscosity of 6.078cP at 25 °C, and a relative standard deviation of 0.51%!



If you have questions or need more information about this or other applications, please contact us:

Main Office — 1 925 866 3801

Information — info@RheoSense.com

Sales — Sales@RheoSense.com

