Assignment 5

Due on 2020-10-21, 23:09 IST.

The aim here is to evaluate your understanding of the assignment topics covered. As per our records you have not submitted this assignment.

1) In a liquid medium, the particles form aggregates due to
   a) Electrostatic forces
   b) Mechanical agitation
   c) Ultrasonic agitation
   d) A binding agent
   (1 point)

2) The length of a particle can be estimated using
   a) Projected length
   b) Projected width
   c) Minimum and maximum lengths
   (1 point)

3) The following figure depicts which category of a powder particle size distribution?
   (1 point)

   ![Graph showing particle size distribution]

4) During dynamic light scattering-experiments, small particles have
   a) High scattering angles
   b) Low scattering angles
   c) Several fluctuations in intensity vs. time plot
   (1 point)

5) Which of the following would pass through
   a) 50 micron
   b) 100 micron
   c) 200 micron
   (1 point)

6) Which of the following techniques gives the particle size distribution based on weight basis?
   a) Light scattering
   b) Dynamic light scattering
   c) Scattering electron microscopy
   (1 point)

7) In dynamic light scattering experiments, the particle size is
   a) Directly related
   b) Inversely related
   c) Irrelevant
   d) Depends on the material
   (1 point)

8) Hydrodynamic Diameter is
   a) Diameter of particle observed in a liquid medium
   b) Diameter measured using computerized software
   c) Diameter of a particle having the same translational diffusion coefficient as the particle being analyzed
   (1 point)

9) Which of the following techniques is best suited to determine particle size and particle size distribution?
   a) Dynamic light scattering
   (1 point)

10) Which morphology of the particle has the highest aspect ratio?
    a) Needle
    b) Plate
    c) Spherical
    (1 point)