

Marks
6

- Give a brief definition or explanation of the following concepts in colloid science.

double layer

The layers of ions on a colloidal particle. The inner (Stern) layer consists of ions that are electrostatically attracted to the charged particle. The outer (diffuse) layer consists of counter ions.

counter ion

An ion of opposite charge to another chemical species.

isoelectric point

The pH value at which an amino acid or peptide has zero net charge.

zeta potential

The zeta potential is a measure of repulsion between adjacent, similarly charged particles in a colloid (*i.e.* the stability of a colloid). Colloids with high zeta potentials are electrically stabilized, whilst those with low potentials tend to coagulate.

flocculation

The process in which colloidal particles clump together to form larger particles causing separation of the colloid.

electrokinetic mobility

The movement of colloidal particles in response to the application of an electric field.