**Dr.Manoj Kumar**

**Associate professor**

**Department of Chemistry**

**Raja Singh College,Siwan**

**Gels:**A gel is a [sol](https://www.thoughtco.com/definition-of-sol-in-chemistry-605920) in which the solid particles are meshed such that a rigid or semi-rigid mixture results.

**Examples:**Fruit jelly is an example of a gel. Cooked and cooled gelatin is another example of a gel. The protein molecules of gelatin crosslink to form a soid mesh which contains pockets of liquid.

**Thixotropy**, reversible behaviour of certain gels that liquefy when they are shaken, stirred, or otherwise disturbed and reset after being allowed to stand. Thixotropy occurs in paint, such as lithopone in oil, which flows freely when stirred and reverts to a gel-like state on standing. Quicksand, a mixture of [sand](https://www.britannica.com/science/sand) and water, is rendered thixotropic by the presence of certain clays. [Drilling mud](https://www.britannica.com/technology/drilling-mud), made thixotropic by the inclusion of bentonite, forms a cake on the wall of the drill hole to keep drilling [fluid](https://www.britannica.com/science/fluid-physics) in the hole and to prevent outside water from entering.

**Tyndal effect**

When a beam of light is passed through a colloidal solution particle f dispersed phase scatter the light and thus the path of beam gets illuminated i.e.,visible .This light scattering phenomenon is called Tyndal effect .The intensity of scattered light is governed by the difference between the refractive indices of the dispersed phase and dispersion medium.In lyophobic colloids the difference is appreciable and therefore this effect is fully observed while in lyophilic sols,this difference is small and thus weak Tyndal effect is observed .A true solution does not show Tyndal effect and is said to be optically void.