

coating; they imparted an organic element to the sensitive film, forming what are known as organic sensitizers, their sensitizing action being due to their property of forming an organic compound of silver which greatly increases the sensitiveness of the plate, and, as a consequence, aids in giving density.

Collodion emulsion was a direct outcome of these collodion dry plate processes, and was probably suggested by experiments in connection with the latter. As far back as 1853, Gaudin proposed to use haloids in the form of emulsions, and in 1861, he gave details of his experiments. Three years later the first successful emulsion process was published by Bolton & Sayce, who used silver bromide emulsified in collodion, and from the principles they laid down all subsequent collodion emulsion processes have sprung.

Photographically, an emulsion may be described as a viscous fluid holding in suspension a sensitive silver salt in an extremely divided state, so fine indeed that when the film is spread on glass and viewed by transmitted light it shows no grain or structure, but presents a homogeneous appearance. It will thus be seen that where in the case of wet collodion the silver salt is on the surface, it is diffused throughout the film in the case of collodion emulsion.

A collodion emulsion used in its plain state can seldom be as sensitive as wet collodion, and never as sensitive under the most favourable circumstances as gelatine dry plates, except by colour sensitizing, but there are other qualities than sensitiveness required, and collodion emulsion will be found to possess advantages which are not possessed either by wet collodion or gelatine.