http://www.geology.19thcenturyscience.org/books/1913-Henderson-Fitness/README.htm

that adsorption becomes a factor of the greatest weight; for, other things being equal, the total force of surface tension in a system is proportional to the area of surface. Under these circumstances dissolved substances are no longer distributed with any approach to equality or regularity in the system, but they collect at the surface in very great quantities, and in the most irregular manner.

Now of all known physical structures there is none which rivals protoplasm in its fine complexity, and adsorption is therefore unquestionably a prominent agent in deciding its physico-chemical constitution. Moreover, adsorption influences and complicates almost every process of chemical physiology, for no product of life is without its colloids, *i.e.* substances which are finely divided and therefore endowed with great surface areas. In truth colloids are probably quite essential to fine complexity, and so to every conceivable form of life.[1]

The evidence for this universal importance

[1] "Eines aber möchte ich behaupten, welches auch immer die stoffliche Zusammensetzung jener Lebewesen (living organisms in another world) sein mag: es müssen Kolloide sein. . . . Welcher andere Zustand, ausser dem Kolloiden, könnte derart veränderliche, derart plastische Formen bilden und wäre doch im stande, diese Formen, wenn nötig, unveränderlich zu wahren." — BECHHOLD, *l.c.*, p. 194.