occur among them, and between them and other substances.

Such, then, is the process to which are due most of the electrical phenomena and many of the chemical phenomena of solutions, and it is certain that the extent and variety of ionization in water far surpass what is possible in any other solvent. One reason for this is most simple. The ionizing substances are so very much more often soluble in water than in any other solvent, and when soluble are in general so much more highly soluble, that the opportunity for ionization in water is quite unparalleled. Further, ionization in solution unquestionably depends upon the dielectric constant of the solvent, in accordance with the principle first stated by Nernst that the greater the dielectric capacity of the solvent, the greater is the degree of electrolytic dissociation of substances dissolved in it, when the conditions are otherwise the same.[1]

[1] "The following consideration will make this principle clearer: The positively and negatively charged ions would unite to form electrically neutral molecules because of the electrostatic attraction which exists between them if it were not for the action of another and opposing force, the nature of which is as yet unknown. The equilibrium between these two forces gives rise to the equilibrium between the ions and the undissociated molecules, or determines the degree of dissociation. When the dielectric constant is increased, the