

in which water plays so large a part. In the first place the chemical reactions in which it is concerned during the process of geological evolution, though they are no doubt in the total of great magnitude, are both slow and far from violent. Long since any very active changes of this sort, so far as the superficial part of the crust is concerned, have run their course. In the second place water is really, at the temperature of the earth and in comparison with most other chemical substances, an extremely inert body, for the union of hydrogen with oxygen is so firm that it is not readily dissolved.

Thus water exists as a singularly inert constituent of the atmosphere, as a liquid nearly inactive in chemical processes on the surface and in the soil, and everywhere as a mild solvent which does not easily attack the substances which in great variety dissolve in it. The chemical changes which do follow upon solution are not such as to produce substantial chemical transformations, and most substances can pass through water unscathed. The nature of water, then, is a great factor in the chemical stability, which, no less than the physical stability of the environment, is essential to the living mechanism. But it may be questioned if such stability would not