

Such properties are our present concern. Doubtless if it were not for the enormous quantity of water which exists upon our planet, all its physical properties would be of little avail to bring about its universal importance in nature. This, however, as has been above explained, appears to be neither an accidental nor an uncommon phenomenon.

Of the total extent of the earth's surface the oceans make up about three fourths, and they contain an amount of water sufficient, if the earth were a perfect sphere, to cover the whole area to a depth of between two and three miles. This corresponds to about 0.2 per cent of the volume of the globe. The occurrence of water is, moreover, not less important and hardly less general upon the land. In addition to lakes and streams, water is almost everywhere present in large quantities in the soil, retained there mainly by capillary action, and often at greater depths. The atmosphere also contains an abundance of water as aqueous vapor and as clouds. Now the very occurrence of water upon the earth, and especially its permanent presence, is due in no small degree to its chemical stability in the existing physical and chemical conditions. This stability is of great moment in the various inorganic and organic processes