

relations and reactions, heats of reaction, instability, etc., which together result in maximal fitness in certain respects, *e.g.* as sources of matter and energy for the processes of metabolism, as sources of complex structures, as the means of establishing complex functions, etc.

- VI. Oceans are formed automatically in the cosmic process.
- VII. The ocean possesses unique properties, *e.g.* mobility, richness in dissolved substances, durability, and stability of physico-chemical conditions, depending chiefly upon the properties of water and carbonic acid, which together result in maximal fitness in certain respects, *e.g.* as *milieu*, and as source of matter for the processes of metabolism, to moderate and equalize temperature, etc.
- VIII. The physical and chemical properties which have been taken into consideration include nearly all those which are known to