

into the domain of the "infinitesimal" might meet with a reward in discovery of that which would afford the "very slight indication," spoken of by Hugo De Vries, as pointing the way to the control of life.

The declaration by Sir Oliver Lodge that the unit weight of the hydrogen atom had been proven a fact, and the assertion that such a condition had never even been dreamed of by the chemist, opens up the whole field of chemistry for exploration by the person who will enter the field as a biologist, in search for the origin of material form. Others might use the term "origin of life," but motion is life, and control of motion everlasting life.

The scientist has declared that were the constitution of water understood, the mystery of life would be solved.

Such an assertion caused the writer to investigate the movements of bacteria cells, cells that reduce solids to liquids and construct solids from liquids.

The invention of the ultramicroscope revolutionized the idea of a sharp line of separation between the organic and inorganic world of form. Under this wonderful instrument the hardest metals, when in solution, execute the same kind of motion as described by the bacteriologist as characterizing bacterial life.

Dr. Zsigmondy has stated that it is impossible to keep water free from ultramicroscopical dust particles for any extended length of time. That no matter how thoroughly water has been treated, even after repeated distillation, in a very short time dust-particles make their appearance. The thought was at once suggested, Are those "dust particles" groups of primordial particles, formed by the changing fields of gaseous electricity (or ether) that make up the atomic growth of water?

When Professor Thomson's lecture was published *re* "The Constitution of Matter," where he said, the mass of ether attached to a system is equal to the potential energy of that system, a condition was afforded from which we might expect to find the fruit of the growth of water.

Of the dust particles, Zsigmondy says they do not move about but appear stationary. Now, distilled water is obtained by artificial evaporation, and the activities represented in the product do not appear to become "static" or balanced, until these "dust particles" make their appearance. Their growth would represent the electrostatic field with its tension along the lines and pressure at right angles being brought under the force of magnetism, when spherical rings or closed curves would be formed. These dust particles appear as centres of tension throughout the water, and when the chemical substances are added to the water with their metal to be dissolved, the static condition of the water is broken down, and the energy, released, travels along in definite directions, forcing the particles of gold to move about according to the electrical energy released in the decomposition of the particles. Chemical affinity is said to be electrically directed, so that we have to deal with electric energies when investigating chemical action.

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