## Active Hydrogen (this is the ORP oxidative reduction Potential measured with the ORP meter)

While all of the biophotolysis activity is occurring, simultaneous biological reactions are taking place that govern how much energy can be produced. Specifically, glycolysis, the Kreb-cycle, oxidative phosphorylation and the cellular respiratory chain are responsible for this governance. These reactions are quite complex, however the intrinsic common denominator between them is bioavailability of active hydrogen.

Active hydrogen is a hydrogen atom that has an additional electron in its outer shell that gives it a negative charge. This extra electron is able to react with other compounds in the body to control what are known as redox reactions. Reduction/ Oxidation reactions, or redox reactions, involve the regulation of a reaction through the electric field present. Compounds with a very low or negative redox have the energy needed to drive a reaction. Active hydrogen has an incredibly low redox reading. Active hydrogen works as an effective antioxidant in the body combating free radicals and restoring cellular health. Active hydrogen also increases protein production in the body and optimizes hydration.

Active hydrogen optimizes the production of ATP, NADH, proteins and increasing hydration. With active hydrogen, you can experience increased hydration, reduced levels of oxidized cholesterol, more efficient carrying of oxygen in the blood, increased immune system response and more.