Hydrogen Production from Water Fracking

Introduction

Hydrogen for Humanity is excited to introduce a new, highly efficient method to produce pure hydrogen that can be used as a direct power source or to fuel and recharge hydrogen fuel cells. We propose to demonstrate the efficacy of "ARC", Acoustic Resonance Chord, (sound waves) as an improved method to fracture water molecules for the generation of hydrogen fuel; replacing the electrolysis technology typically employed today.

Acoustic Resonance Technology (ART) has been employed in various industries as a method of testing and documenting structural integrity of multiple objects through non-destructive means. This technology includes the generation of both sonic and ultrasonic waves, focused on an object to reveal the presence of cracks in land-based water pipes and the manufacture of glass and porcelain industrial products, and industrial boilers among products. Vibrations in the tested item are caused by either physically "tapping" them and measuring the response, or by the employment of sound waves generated at the object's "frequency" to excite them and measuring the response. In most applications, testing is accomplished by non-destructive means.

This proposal advances the use of *destructive* sonic frequencies to accomplish the fracture of water molecules thus releasing both hydrogen and oxygen as a fuel product. Readers will be most familiar with the concept of employing sound waves to shatter glass. A sound generator is used to create a musical note equal to the resonant frequency of a glass object to vibrate the air molecules around the glass, causing the glass to vibrate – to the extent that it shatters. That same principles are being employed in the disruption of water to fracture the molecule (H_2O) into its components (two hydrogen atoms and one oxygen atom).