## ABSTRACT

430000 A process is disclosed for producing hydrogen and oxygen gasses from water which includes having water in a cavity which has a selected resonant frequency and applying of voltage potential to exciter elements in contact with the water in the cavity so that one element maintains a positive charge and the other a negative charge. The voltage potential is pulsed at a frequency matching the resonant frequency of the cavity. The apparatus is prefer ably a spherical shell which is a first exciter element formed of an electrically conductive non-reactive material and defines the boundary of a cavity. The cavity has a pre-determined resonant frequency and a second exciter element of the same material as the first exciter element is located within the cavity and selected spaced relationship therewith. Water can flow into the cavity and gasses produced outflow from the top of the cavity, such gasses being obtained from the water in the cavity when an electrical pulsating potential is applied to the exciter elements.