

The CIHT is a mostly solid state design derived from the AMTEC generator.

(AMTEC described here:<http://www.mpoweruk.com/amtec.htm>.)

It is however NOT the AMTEC. Instead a "p" alumina Na ion conductor separates (2) compartments.

The "anode" compartment has the NaH hydrino reaction, releasing Na ions and electrons.

The "cathode" compartment has electrons recombining with Na ions that have passed through the ion conductor, after passing through an external electric circuit.

Essentially the Hydrino reaction using NaH as catalyst provides Na ions, while generating a hydrino waste product that is discarded from the system. New hydrogen is reacted with the sodium vapor emitting from the surface of the "p" alumina ion conductor in the "cathode" compartment.

The separation of the electrons from the hydrino plasma in the "anode" compartment for passing through the external circuit is by having a p-type semiconductor electrode on the backside of the compartment.

In summary, Na ions pass through the ion conductor, and electrons pass into and through the p-type semiconductor. These (2) electrodes with the hydrino reaction space and sodium vapor reaction space are stacked to provide higher voltage than the 1.6 V nominal per cell.

Hydrino reaction chemistry also provides the heat to keep the CIHT at an elevated temperature for better ion conductivity.

The materials problems with this design are great, as both electrodes are affected by the atomic hydrogen as it is formed and consumed.

Efficiency in a commercial unit would probably be comparable to the AMTEC. Perhaps 30%.