

For Immediate Release

Contact:

Mark Ludwig, CEO, 415-846-4736, mludwig@impulseedevices.com  
Ross Tessien, President, 530-913-9753, ross@impulseedevices.com  
Impulse Devices, Inc.  
13366H Grass Valley Ave.  
Grass Valley, CA 95945

Don Levin, 914-834-5919  
Levin Public Relations  
Levin@levinpr.com

James Simpson, Marketing & Sales Manager, Neutron Generators, 719-598-9549, x224,  
jim.simpson@thermo.com  
Thermo Electron Corp.  
5074 List Drive  
Colorado Springs, CO 80919

**Impulse Devices Acquires \$80,000 Neutron Generator to Develop Acoustic Fusion;**

**Enables More Accurate Measurement of Fusion Reaction**

Grass Valley, CA, July 21, '05 -- Impulse Devices Inc., the leading developer of acoustic inertial confinement fusion, AICF, today announced the acquisition of an \$80,000 neutron generator to enhance its fusion technology.

With this purchase, Impulse Devices (IDI) can now effectively develop its acoustic fusion process by utilizing a source of neutrons that are generated with precise timing and are readily distinguishable from the neutrons that emanate from the acoustic fusion itself.

In IDI's unique approach to fusion, sound waves bombard a liquid to create tiny void "bubbles" or "cavities." The bubbles grow and collapse violently to generate a flash of light and enormous heat, which create the conditions for fusion. The neutrons from the Thermo-Electron's generator "seed" the bubble formation in the liquid.

The neutrons from this new generator will trigger the fusion process in an IDI reactor. These "trigger" neutrons are emitted in a narrow pulse that lasts a few microseconds, and the generator assures that absolutely no neutrons are produced between pulses, which is critical for IDI's application. When this neutron output is zero, the only detectable neutrons will come from acoustic fusion, which is what IDI wants to measure.

The company's CEO, Mark Ludwig, said, "Now there can be a clear distinction between input and output. We will know exactly how much fusion we achieve. This will prove our reactor's efficiency and design."

Most other neutron generators drop from 100 to 1000 neutrons per second between pulses. The IDI generator, made by Thermo Electron Corp., of Colorado Springs, CO, pulses both the accelerating voltage and ion source, which ensures the neutron flux drops to zero between pulses.

Originally designed by Sandia National Laboratories, the generator's neutron emitter incorporates the Sandia-designed "Zetatron" neutron tube now made only by Thermo Electron.

Impulse Devices, Inc. designs and manufactures AICF research reactors, initially for national laboratories as well as major universities, eventually for utilities. The company also studies the science of AICF to more fully understand performance dynamics for future reactor designs.

For more information, contact Mark Ludwig, CEO, [mludwig@impulsedevices.com](mailto:mludwig@impulsedevices.com), or Ross Tessien, Founder, Chairman and President, [ross@impulsedevices.com](mailto:ross@impulsedevices.com), at Impulse Devices, Inc., Grass Valley, CA.

###