



FOR IMMEDIATE RELEASE:

CONTACT:

Ryan M. Taylor

Cryogenic Institute of New England, Inc.

(508) 459-7447

Fax: (508) 459-7426

rtaylor@nitrofreeze.com

[Http://www.nitrofreeze.com](http://www.nitrofreeze.com)

Cryogenic Helium Processing Approaches New Levels of Affordability

Worcester, MA – June 30, 2008 – The Cryogenic Institute of New England, Inc. introduces a new capability of utilizing liquid helium for cryogenic treatment of materials to temperatures as low as 4K /- 268C/-451F. Measurements were recorded by attaching a spring loaded silicone diode cryogenic temperature sensor rated to 1.4K with a calibrated accuracy of +/- 10mK.

The procedure involves the utilization of a specially modified cryogenic chamber that was designed and constructed in collaboration with technology partner Applied Cryogenics Inc. The chamber utilizes multiple dedicated delivery systems for introduction of both liquid nitrogen and liquid helium. The system also utilizes an advanced insulation scheme that involves a combination of sophisticated polyisoanurate materials, as well as vacuum and liquid nitrogen jackets for maximum effectiveness. A proprietary method for controlling the delivery of the helium to the chamber enables controlled rates of temperature change.

According to Robin Rhodes, President of Cryogenic Institute of New England, Inc., the capability grew from the needs of its aerospace customers who sought extreme temperature cycling for residual stress relief of critical components. "It was a natural extension for us to push beyond the limits of liquid nitrogen (77K/-196C/-320F), where we work every day, into the coldest cryogens available", Rhodes stated. The company reported that they have delivered controlled cryogenic treatment profiles at temperatures ranging from 16K to 4K (-257C/-430F to -268C/-451F) over a dozen times in the past year. The temperatures and profiles were specified by the firm's customers, who Rhodes declined to identify because of confidentiality agreements.

While the majority of applications have been related to aerospace, the firm has also offered the capability to researchers and other industries, including electronics. Cost for the treatment varies, depending on ramp and soak times, but Rhodes estimates that his firm can offer a near absolute zero

-More-

Cryogenic Helium Processing (cont.)

treatment cycle (to 4K) for less than 30% of the cost of similar processing as offered through governmental and other research organizations. “We feel that we have a real price breakthrough that will lead to further commercialization of ultra deep cryogenic treatments for residual stress relief and other transformations in materials”, Mr. Rhodes stated.

The Cryogenic Institute of New England, Inc., located at 90 Ellsworth St. Worcester, MA, is dedicated to the commercial application of cryogenic technologies to serve the needs of industry, government and scientists. The firm offers a full range of cryogenic services, including conventional cryogenic treatment, heat & freeze thermal cycling, cryogenic deflashing & deburring services, shrink fitting services, and dry ice (CO₂) blast cleaning. It also offers engineering services, cryogenic lab work in support of R & D, and custom equipment design for new and unique cryogenic applications. It is a corporate sustaining member of the Cryogenic Society of America. To learn more visit <http://www.nitrofreeze.com>.

###