

Method and Apparatus for Heating a Work-Piece in an Ultra High Magnetic Field

Disclosure Number

201102730

Technology Summary

The ability to selectively control microstructural stability and alter transformation kinetics through application of high-strength magnetic fields provides a robust mechanism to develop and tailor enhanced microstructures with superior properties through a more efficient processing technology for a broad spectrum of material applications. A key component of some material treatment protocols is the ability to rapidly heat and cool a sample inside the bore of an ultra-high field magnet.

The present invention comprises a method of selectively heating a wide range of materials within the confines of a high magnetic field, enabling specific and unique processing results. Such results may be either time consuming, energy intensive, or not possible by other heating methods in a magnetic field.

Inventor

KISNER, ROGER A

Measurement Science & Systems Engr Div

Licensing Contact

DETRANA, ALEXANDER G

Rm 139, Bldg 4500N

1 Bethel Valley Road 6196

Oak Ridge, TN 37831

Office Phone: (865) 576-9682

E-Mail: DETRANAAG@ORNL.GOV
