

Emissivity Independent Optical Pyrometer

Disclosure Number

201102715

Technology Summary

The present invention provides an emissivity independent optical pyrometry technique and apparatus that allows absolute measurements of surface temperature using a non-contact probe. The technique allows surface temperatures between 300 Deg. C and 1400 Deg. C to be measured with resolutions of less than 5 degrees C. This system utilizes an optical fiber probe which allows measurements to be performed in challenging environments. These include environments with high magnetic fields, radiation, and high temperatures. The non-contact probe is capable of measurements in open air and through clear windows. A measurement standoff distance is typical for most applications.

Inventor

EARL, DENNIS D

Measurement Science & Systems Engr Div

Licensing Contact

SPEIGHT II, MELVIN D

UT-Battelle, LLC

Oak Ridge National Laboratory

Room 143, 4500N, MS: 6196

1 Bethel Valley Road

Oak Ridge, TN 37831

Office Phone: (865) 241-6564

E-mail: DSPEIGHT@ORNL.GOV

Note: The technology described above is an early stage opportunity. Licensing rights to this intellectual property may be limited or unavailable. Patent applications directed towards this invention may not have been filed with any patent office.