

Electronic Thermometry in Tunable Tunnel Junction

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Technology Summary

The method of the present invention allows a direct measurement of a temperature gradient between two closely spaced conducting bodies, provided the separation gap is small enough to allow quantum electron tunneling and it is adjustable. The method does not require calibration against known temperature standards. When combined with scanning probe microscopy, the present invention allows spatially resolved thermal mapping with < 1 nm resolution

Inventor

MAKSYMOVYCH, PETRO

Center for Nanophase Matls Sciences Div

Licensing Contact

SIMS, DAVID L

UT-Battelle, LLC

Oak Ridge National Laboratory

Rm 124C, Bldg 4500N, MS: 6196

1 Bethel Valley Road

Oak Ridge, TN 37831

Office Phone: (865) 241-3808

E-mail: SIMSDL@ORNL.GOV

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