

Engineered & Advanced Materials The World's Manufacturer of dielectrics

germanium windows

99.999% ruthenium spheres

AMERICAN **ELEMENTS**

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anti-ballistic ceramics

platinum ink

quantum dots

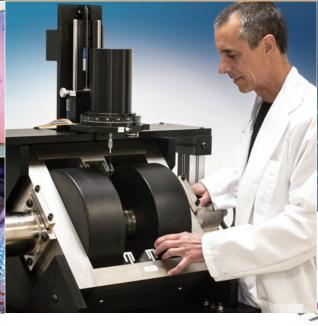
photovoltaics shape memory alloys Nd:YAG

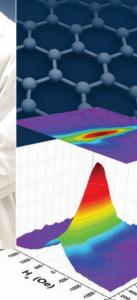
© 2001-2011. American Elements is a U.S. Registered Trademark catalog: americanelements.com nickel foam alternative energy hafnium tubing ultra high purity ments is a U.S. Registered Trademark.

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Advancing Materials Characterization





Reliable tools for studying:

1.05

- 2D materials, including graphene
- Superconducting MEMS materials
- Thin-film, III-V, II-VI, and elemental semiconductors
- Photovoltaic and thermoelectric materials

Frequency (GHz)

- Transparent conducting oxides
- Magnetic thin films and nanomagnetic composites, wires, and arrays
- Other nanomaterials

Attending the MRS Spring Meeting?

Visit Lake Shore at Booth 300



614.891.2243 | www.lakeshore.com

Be on the Leading Edge of Materials Research

Explore transport properties of new materials that open up possibilities for future development in fields like semiconductors, solar energy, spintronics, and organic electronics.

As a leading innovator in solutions for characterizing materials as a function of temperature and magnetic field, Lake Shore offers systems and probe stations to measure with confidence when analyzing properties of new materials and early-stage devices.

For all your measurement system needs, look to Lake Shore — an industry leader with three decades of expertise in advanced material characterization.

Hall Effect Measurement **Systems**

to 10^{-3} cm²/V s

DC fields to 2.3 T

200 GΩ

■ 1 to 10⁶ cm²/V s mobilities

Resistances from 10 μΩ to

■ 10 K to 1273 K temp range

AC field option for measuring



Magnetometer **Systems** (VSMs & AGMs)



- Highly sensitive and accurate ■ Fast - 10 ms/pt
- 4.2 K to 1273 K temp range
- Variable fields to >3 T
- Combination VSM & AGM available
- Excellent reproducibility

Cryogen & Cryogen-Free **Probe Stations**



- 1.6 K to 675 K temp range
- Up to 102 mm wafer probing
- Vertical or horizontal fields
- DC, RF, microwave, and other probe options
- Hall measurement options also available