# SBA 458 *Nemesis®*

## Simultaneous Determination of Seebeck Coefficient and Electrical Conductivity

#### **A Measurement Setup for Varied Sample Geometries**

The SBA 458 *Nemesis®* is heralded for its unique measurement setup, which accomodates more sample geometries than usually for this technique. Measurements can be carried out at temperatures up to 1100°C.

#### **Quick Start to Measurements – Convenient Sample Change**

Changing samples is accomplished quickly and easily by hand, without any tools. By using sheathed thermocouples sticking of the sample to the electrodes is avoided.

#### **Integrated Quality Check – Outstanding Two-Heater System**

The SBA 458 *Nemesis®* has two heavy systems that are employed in an alternating manner for each temperature step. Deviations from linearity and hysteresis due to inaccurate measurement can be immediately observed before and during the measurement.

#### **Highly Reliable and Rugged Design – Avoiding Diffusion Problems**

The thermocouples are firmly anchored and are immobilized during the measurements by a defined contact force resulting from the mass and the cold spring. Sheathing of the thermocouples prevents diffusion from cementing them to the sample.

#### **No Distance Determination Required**

Since the thermocouple positions are fixed, the cumbersome process of determining their distance before each measurement is eliminated. Eliminating this potential source of error in determining electrical conductivity increases the precision and reproducibility of the results.