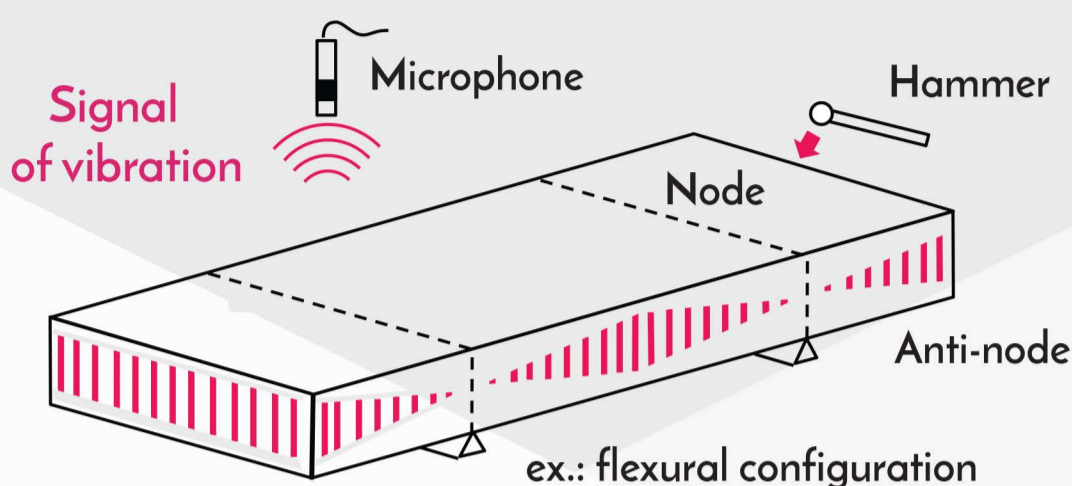


EXPERT IN
MATERIALS
FORMING

HIGH-TEMPERATURE CHARACTERIZATION OF ELASTIC PROPERTIES OF MATERIALS UP TO 1050°C



COMPETITIVE ADVANTAGES

The Impulse Excitation of Vibration method (IEV) for characterization of elastic properties of materials is a cost-efficient and an accurate solution. **IEV method is non destructive and repeatable.** Furthermore, only few basic and adaptive samples are necessary to obtain the properties in a **short time and a large temperature range.**

With more than 450 different tested materials and a proven expert team in mechanics & materials science, Aurock brings you its scientific and industrial expertise to succeed in your materials characterization.

High-temperature characterization
of elastic properties of
material up to
1050°C

OUR OFFER

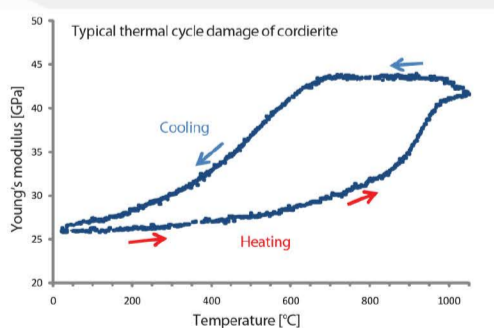
Aurock is expert in high temperature characterization of elastic properties of materials via Impulse Excitation of Vibration for all materials: ceramics, metals, glasses, polymers, composites...

These materials can be homogeneous or heterogeneous with mainly isotropic elastic behavior, it is also possible to study orthotropic elastic behavior as wood or composite fibers...

We deliver a report with well-founded analysis, post treated and raw measurement data following the standard test method ASTM E 1876, ISO 12680-1, ENV 843-2.

MATERIAL PROPERTIES

- ▶ Young's modulus (>0.5 GPa)
- ▶ Poisson's ratio and shear modulus
- ▶ Damping or internal friction
- ▶ Damage: comparative material study

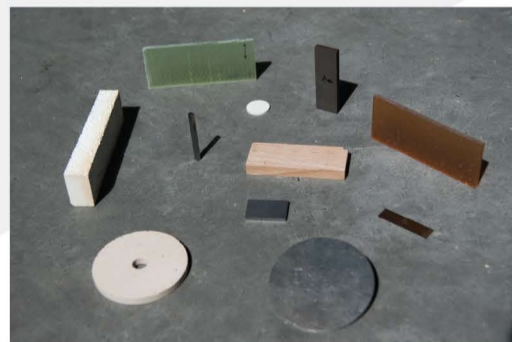


Aurock can use FEM simulations to identify elastic properties of isotropic and anisotropic heterogeneous and multilayers materials.

EQUIPMENTS



- ▶ Ambient and furnace setups
- ▶ Temperature range from ambient to 1050 °C
- ▶ Low temperature measurement on demand
- ▶ Heating/cooling rate: max 5 °C/min
- ▶ Atmosphere air, argon or nitrogen
- ▶ Complex thermal cycles



Sample characteristics:
Typical sample shape: rectangular bars 80x20x10 mm³

A wide range of dimensions and shapes are possible, makes it easier to take into account your constraints and requirements.

CERTIFICATIONS



CUSTOMER REFERENCES



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