Bioindenter™:
Nanoindentation tester for soft biological materials

Anton Paar

Anton Paar's Bioindenter™ is a dedicated nanoindentation tester for the needs of biologists, research physicians and other researchers.

Rely on the Bioindenter's unmatched force and displacement range and resolution for the most sensitive characterization of elastic modulus, creep and other properties of cartilage, tissues, scaffolds, hydrogels or eye tissues.

- Measure soft materials with elastic modulus down to ~2 kPa range, creep and permeability
- Large displacement range and automated surface detection for irregularly shaped samples
- Adapt the measurement protocol to your needs
- Integrated Petri dish holder
- Temperature control up to 50 °C and different kinds of indenters available

Specifications

Load range: <0.01 mN to 20 mN

Load noise floor: 0.1 µN

Depth range: up to 100 µm

Depth noise floor: 0.5 nm (air)

Maximum creep time: unlimited

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Bioindenter™:
A new tool for testing mechanical properties of tissues and soft materials

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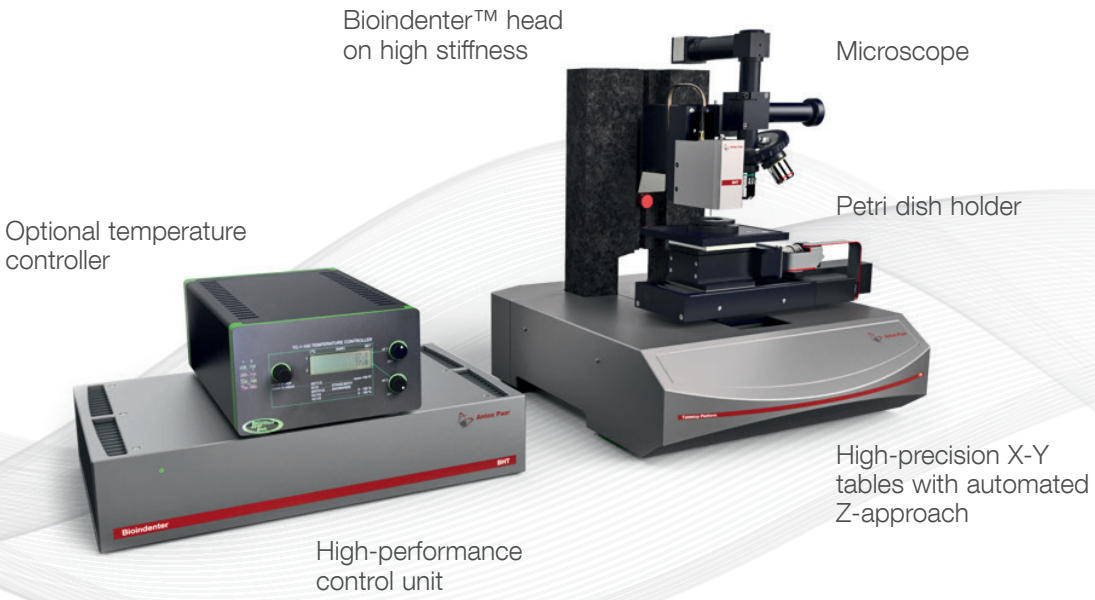
Whether you are interested in the treatment of osteoarthritis, stiffness of hydrogels or disease progress in arteries, Bioindenter™ is the right tool for you. The Bioindenter™ brings a new dimension to the local mechanical testing of tissues and soft materials by using automated procedures for indentation and surface detection. Its thermal stability allows for creep measurements that help to characterize the permeability of natural or man-made materials.

Applications

- Cartilage: cartilage repair & regeneration
- Eyes: treatment of corneas
- Arteries: monitoring disease progress
- Repair and regeneration of tissues (scaffolds)
- Tissue diagnostics by change in stiffness
- Micro tissue compression
- Hydrogels



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