The MicroTester LT is a micro-scale tension-compression test system. It can be used to determine the stress-strain properties of a variety of materials including tissue samples, cell aggregates, hydrogels, and tissue engineering scaffold materials.

By detecting small changes in a force sensing micro-wire, the system can measure forces and displacements that are much smaller than a conventional mechanical test system. The system incorporates a temperature-controlled fluid bath for maintaining ideal specimen conditions and a high-quality optical system to provide user feedback.

Force resolution down to 10nN and spatial resolution down to 1µm are possible with this specialized system. The control software can support both force-controlled and displacement-controlled user protocols.
Below, the MicroTester LT compresses a microsphere between 2 parallel plates as prescribed in the user test protocol. The system outputs force and displacement data as well as time-correlated images of the test.

CellScale Biomaterials Testing is the industry leader for precision biomaterial and mechanobiology test systems. Our products are being used at world-class academic and commercial organizations in over 30 countries around the globe.

Our mechanical test systems allow researchers to characterize the mechanical properties of biomaterials. Our mechanobiology technologies provide insights into the response of cells to mechanical stimulation.

CellScale’s technologies are improving human health by helping researchers discover the causes of disease, improve medical treatments and devices, and advance regenerative medicine and other basic science research.

Visit our website or contact us to learn how our innovative products can help you achieve your research and development goals.