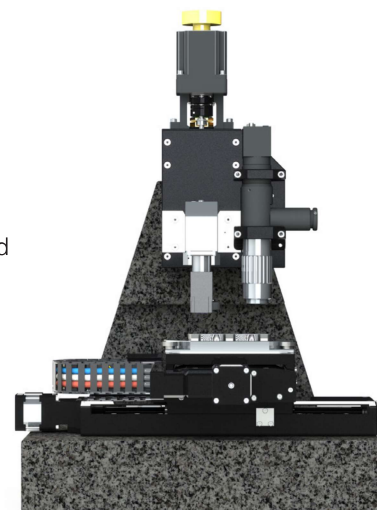


Hysitron TI Premier Features

- Application-specific testing technique packages to reliably meet your characterization needs
- Proprietary capacitive transducer technology for reliable mechanical and tribological property measurements at the nanoscale
- High-resolution in-situ SPM imaging that enables precise test positioning accuracy (± 10 nm) and observation of post-test deformation behavior
- Custom-engineered enclosure with an integrated anti-vibration system to provide nanoscale characterization capabilities in non-ideal environments
- Sensitive force and displacement noise floors (75 nN, 0.2 nm) for unprecedented accuracy
- Intelligently designed software with enhanced automated testing routines and an intuitive user interface
- Easily adaptable system to meet specific research needs, from soft polymers to ceramic thin films



Hysitron TI Premier Specifications

Nanoindentation	Normal Load Range: 75 nN to 10 mN (30 mN optional) Normal Displacement Range: 0.2 nm to 5 μ m
Nanowear	Normal Load Range: 100 nN to 1 mN Wear Box Size: 4 μ m - 60 μ m
In-Situ SPM Imaging	Imaging Force: <100 nN Maximum Scan Volume: >60 μ m x 60 μ m x 4 μ m
Motorized Staging	Travel: 50 mm x 150 mm Resolution: 50 nm

Hysitron TI Premier Upgrade Options

Nanoscratch	Quantify scratch/mar resistance, thin film adhesion, and friction coefficients with normal and lateral force/displacement monitoring
xSol [®] Environmental Stage	400°C and 600°C stages for material investigation at non-ambient temperatures and under customizable atmospheres
nanoDMA [®] III	Dynamic mechanical analysis that enables a continuous measurement of elastic-plastic and viscoelastic properties as a function of contact depth, frequency, and time
nanoECR [®]	In-situ conductive nanoindentation to correlate nanomechanical properties, material deformation behavior, and electrical contact resistance
xProbe	Rigid-probe MEMS transducer that delivers ultra-low force and displacement noise floors typically associated with AFMs
MultiRange NanoProbe™	Expanded force and displacement testing range transducer for depth-sensing microindentation
Modulus Mapping™	Scanning dynamic nanoindentation mode for quantitative, high-resolution maps of modulus distribution across a surface
Electrochemical Cell	Quantitative, in-situ nanoscale mechanical and tribological characterization under oxidizing and reducing conditions
Sample Chucks	Diverse range of magnetic, mechanical, and vacuum chucks to mount almost any sample in any form
TriboAE™	In-situ, through-tip monitoring of acoustic signals generated from fracture and deformation events during the nanoindentation process

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