

- Flexible architecture accommodates your changing needs
- Test systems optimized for technologies from 250nm to 45nm
- Sample projects for HCI/CHC, NBTI,  $Q_{BD}$ , EM, etc. included
- Gate dielectric reliability tests such as TDDB and NBTI supported
- High speed parallel testing for best possible NBTI measurements
- Fully automatic single site and multi site WLR using Automated Characterization Suite (ACS)

Keithley provides a continuum of Wafer Level Reliability (WLR) solutions that address a wide range of technology nodes, throughput requirements, and pricing. This continuum allows you to migrate and scale from solution to solution without sacrificing existing equipment investments. It supports a broad scope of WLR as well as parametric tests and analyses and provides both manual and fully automatic operation.

### Protecting Your Investment

Shrinking geometries are driving the development of new materials, processes, and structures. This often results in new requirements being added to your electrical parametric reliability tests and lifetime tests. To be prepared to meet these ever changing test challenges, invest in test solutions that are multifunctional, scalable, and expandable. Keithley offers a range of solutions that can be expanded through the addition of instruments and switch matrices and scalable through the addition of high speed and high resolution source measurement units (SMUs).

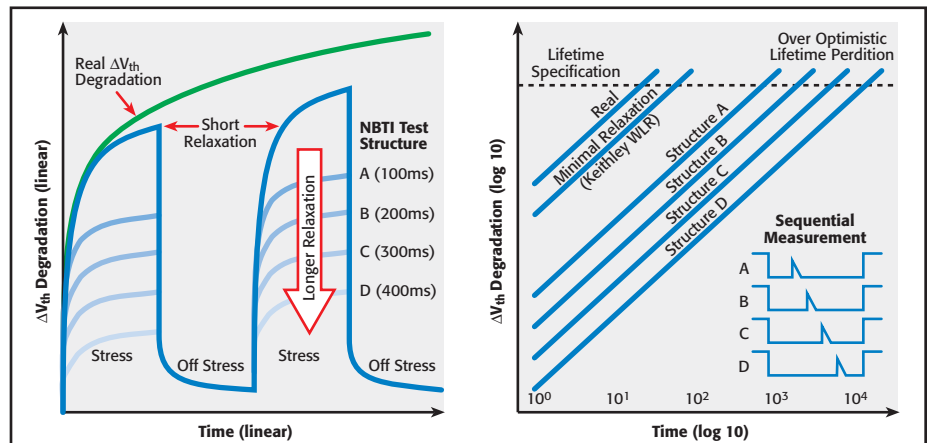
Keithley's WLR test solutions range from building blocks to fully automated parametric test systems equipped with WLR libraries for production environments. The building blocks are easy to integrate into existing reliability, technology development, and semiconductor labs. The systems are designed to provide significant equipment and software reuse as new reliability test needs evolve. This offers a cost-effective migration path as your product mix moves beyond existing technologies towards new materials and the 65nm and 45nm nodes. This also allows you to continue using familiar, proven systems.

### Building Blocks

The basic building blocks of the continuum are briefly described below. Complete information on each can be found elsewhere in the catalog.

- Series 2600 System SourceMeter instruments provide high speed, high resolution, and embedded user scripts.
- 4200-SCS provides high resolution, sensitive, source/measure capability.
- 707A switch mainframe provides signal integration and fan out to a large number of devices.
- Automated Characterization Suite (ACS) software provides complete automation of WLR projects

In addition, the Series 600 parametric test system extends your WLR testing from the lab to the factory floor.



Keithley's high speed NBTI capability using Series 2600 SourceMeter® instruments provides the fastest source measure sequencing and therefore near ideal degradation measurements independent of the relaxation effects seen here.